



BC HYDRO
PEACE RIVER SITE C HYDRO PROJECT

PROJECT DEFINITION CONSULTATION
ROUND 2 SUMMARY REPORT

FEBRUARY 9, 2009

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and
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About Kirk & Co. Consulting Ltd.

Kirk & Co. Consulting Ltd. is recognized as an industry leader in designing and implementing comprehensive public and stakeholder consultation programs. Utilizing best practices in consultation, the firm designs consultation programs to maximize opportunities for input. Kirk & Co. works with polling firms to independently analyze and report on large volumes of public and stakeholder input.



About Synovate Ltd.

Synovate Ltd. is an internationally recognized market research firm. All consultation input received by feedback form and written submission was independently verified and analyzed by Synovate.

Participants self-selected into consultation rather than being selected randomly. Consultation feedback is not comparable to an opinion poll because respondents do not constitute a random sample.

The views represented in this report reflect the priorities and concerns of consultation participants. They may not be representative of the views of British Columbians and other stakeholders because participants self-selected into Round 2 Consultation. Although results are presented in the form of percentages, there are no margins of error for this data because there is no probability sample. The sample in question is based on self-selection, for which a sampling error cannot be measured.

Cover image: *A back channel on the Peace River approximately one mile east of the potential Site C dam site location.*

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CD copy of materials

Executive Summary

BACKGROUND

Project Overview

Site C, a potential third dam and generating station on the Peace River in northeastern B.C., is one of several resource options being considered to help meet B.C.'s future energy needs.

The potential Site C dam would be located seven kilometres southwest of Fort St. John on the Peace River. As the third dam and generating station on the Peace River, Site C would use water already stored in the Williston Reservoir upstream of the existing W.A.C. Bennett and Peace Canyon dams to generate electricity. Site C would produce about one-third of the electricity produced at the W.A.C. Bennett Dam, with one-twentieth the reservoir area. As currently designed, Site C would provide approximately 900 megawatts of capacity, and produce about 4,600 gigawatt hours of electricity each year – enough energy to power approximately 460,000 homes.

The potential Site C dam would include an earthfill dam, 1,100 metres in length, with 300 metres of concrete structures located on the south bank for the spillway and power intakes. The reservoir would be 83 kilometres long and would have a maximum normal fluctuation of +/- 0.9 metres (three feet). Average daily and monthly downstream flows would not change appreciably from what they are today.

If built, Site C would be publicly owned. Early interim project cost estimates indicate that Site C could cost between \$5 billion and \$6.6 billion, including direct construction costs, contingency allowances, inflation, escalation, capital overhead and interest during construction. Cost estimates would be updated at the end of each stage of project review, should the project proceed.

Multi-Stage Evaluation and Consultation Process

BC Hydro is taking a stage-by-stage approach to the evaluation of Site C as a potential resource option for meeting B.C.'s future electricity needs. At the end of each stage of review, BC Hydro will make a recommendation to government for a decision on whether to proceed to the next stage of project planning and evaluation.

BC Hydro is currently in Stage 2, Project Definition and Consultation. Stage 2 includes Pre-Consultation (December 2007 – February 2008) and two rounds of further consultation: Project Definition Consultation, Round 1 (May – June 2008) and Project Definition Consultation, Round 2 (October – December 2008).

In addition, Stage 2 involves extensive engineering, environmental and technical work to further define the potential project and update decades-old studies, as well as to conduct new studies and technical work. Stage 2 will run through to fall 2009 when BC Hydro will make a recommendation to government regarding whether to proceed to the next stage of project planning and evaluation.

Pre-Consultation (December 2007 – February 2008)

In Pre-Consultation, BC Hydro asked participants **how they wanted to be consulted** and about **the topics they wished to discuss**. There were multiple opportunities for the public and local, regional and provincial stakeholders to participate and provide their input. 686 people participated in Pre-Consultation.

Project Definition Consultation, Round 1 (May – June 2008)

Project Definition Consultation, Round 1, which incorporated stakeholder input received in Pre-Consultation, sought feedback on elements of project design, recreation, infrastructure, local impacts, land uses and community benefits. Multiple opportunities were available for the public and local, regional and provincial stakeholders to participate and provide their input. 936 people participated in Project Definition Consultation, Round 1.

For further information on Pre-Consultation and Project Definition Consultation, Round 1 please visit www.bchydro.com/sitec.

PROJECT DEFINITION CONSULTATION, ROUND 2 (October – December 2008)

Project Definition Consultation, Round 2 was held from October 1 to December 3, 2008. Round 2 incorporated public and stakeholder input from Pre-Consultation and Round 1, and was designed to consult the public and local, regional and provincial stakeholders on key elements of the potential Site C project using the following consultation methods:

- Project Definition Consultation, Round 2 Discussion Guide and Feedback Form
- 26 Stakeholder Meetings
- 7 Open Houses
- Website and Online Feedback Form
- Submissions (fax, email, phone and mail)
- Toll-free Site C information line
- Community Consultation Offices (Fort St. John and Hudson's Hope)

Public Notice

Public notice of opportunities to participate in Project Definition Consultation, Round 2 was provided through postcards, newspaper ads, radio ads, email, phone, fax, web and BC Hydro bill inserts. Over 5,000 emails were sent to stakeholders, inviting and reminding them of opportunities to participate in stakeholder meetings and public open houses, followed by 2,000 invitation and reminder phone calls. In addition, newspaper ads were placed in regional and community newspapers to advise residents of opportunities to participate in stakeholder meetings and open houses. Radio ads were run for several weeks on radio stations in the Peace River region, advising residents of the open house schedule available at www.bchydro.com/sitec. More than 21,000 copies of a postcard mailer were sent to households in the Peace River region, to raise awareness of the consultation period and notify residents of opportunities to participate in a series of open houses. BC Hydro customers received a bill insert regarding the Site C project with their monthly statement between July and September 2008. Approximately 1.3 million residential customers received this notice, which included general information regarding the project, and encouraged people to visit the project website for more information about Round 2 Consultation.

Consultation Topics

BC Hydro sought public and stakeholder feedback on the following consultation topics during Round 2:

- Site C as an energy option
- Powerhouse access bridge and associated access roads
- Provincial and community benefits – other potential infrastructure improvements
- Reservoir preparation considerations
- Sourcing dam construction materials, and relocation and reclamation of excavated soil and rock
- Environment

Participation

- 909 total participants in Project Definition Consultation, Round 2
- 358 people attended 26 stakeholder meetings
- 326 people attended 7 open houses
- 72 submissions (fax, email, phone and mail)
- 153 people visited the community consultation offices between October 1, 2008 and December 3, 2008
- 345 feedback forms were returned at stakeholder meetings, open houses, through the community consultation offices, and by web, email, fax and mail

Synovate, a professional market research firm, was commissioned by Kirk & Co. Consulting and BC Hydro to help develop the consultation feedback form, host the online feedback form, and tabulate and analyze all feedback forms and written submissions.

Methodology

345 completed feedback forms were received and tabulated between October 1, 2008 and December 3, 2008 (177 were received online and 168 in hard copy). In addition, 72 submissions were received through fax, email, phone and mail, and those responses were coded and analyzed in conjunction with the tabulated feedback forms.

It should be noted that throughout this report, some percentages may not add up to 100% due to rounding. Through the feedback form, stakeholders self-identified themselves as from the Peace River region or from outside the region; analysis was completed for total stakeholders, Peace River stakeholders and provincial stakeholders. Please refer to pages 14-44 of the Consultation Summary Report for further details.

358 people attended the 26 stakeholder meetings held in 12 communities around the province: Chetwynd, Dawson Creek, Fort Nelson, Fort St. John, Greater Vancouver, Hudson's Hope, Mackenzie, Pouce Coupe, Nanaimo, Prince George, Taylor and Tumbler Ridge.

326 people attended 7 open houses held in Prince George, Fort Nelson, Vancouver, Taylor, Dawson Creek/Pouce Coupe, Hudson's Hope and Fort St. John, with approximately 160 people participating in question and answer sessions¹.

The online feedback form was posted on www.bchydro.com/sitec beginning October 1, 2008 and all feedback forms received up to and including December 3, 2008 have been included in this report.

The input from Project Definition Consultation will be considered, along with technical and financial input, to refine elements of the potential project's design and to assist in defining the scope and nature of ongoing studies.

The views represented in this report reflect the priorities and concerns of consultation participants. They may not be representative of the views of British Columbians and other stakeholders because participants self-selected into Round 2 Consultation. Although results are presented in the form of percentages, there are no margins of error for this data because there is no probability sample. The sample in question is based on self-selection, for which a sampling error cannot be measured.

1. The open house in Fort Nelson did not have a question and answer session due to low attendance and the ability of the project team to answer individuals' questions on a one-on-one basis.

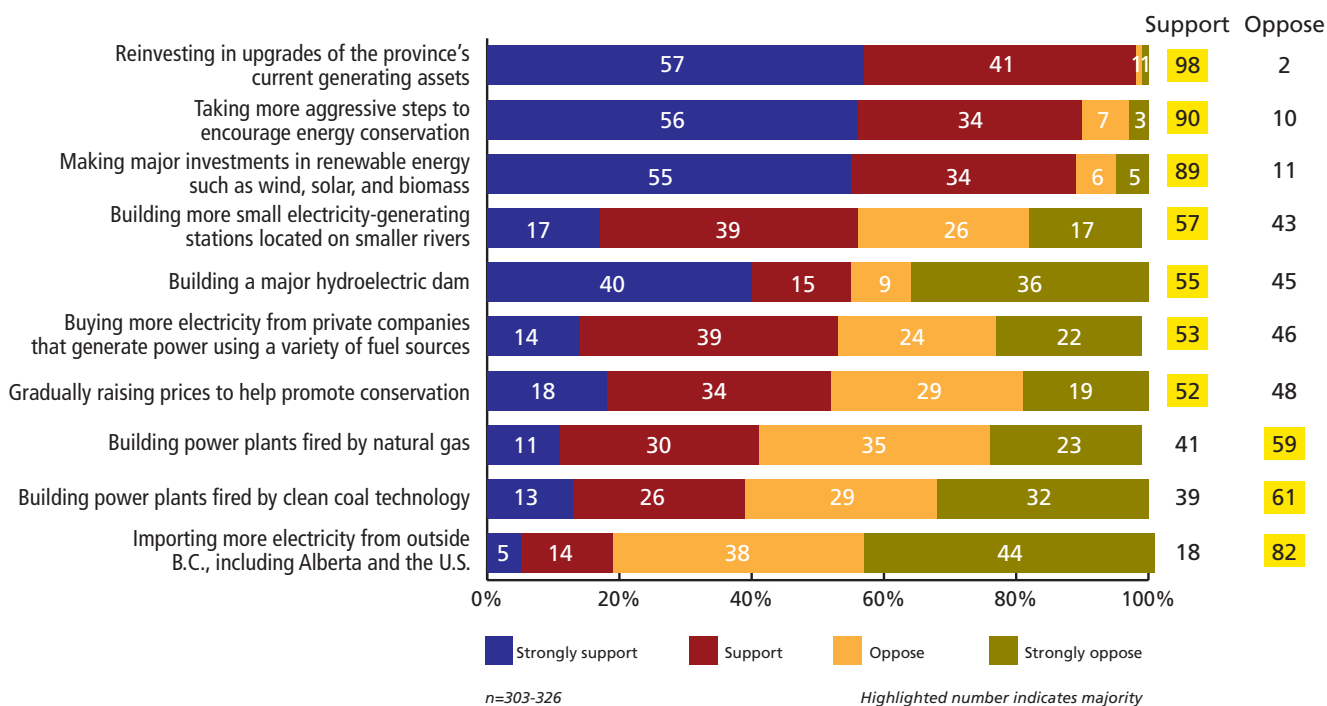
Key Results

FEEDBACK FORMS

LEVEL OF SUPPORT FOR SITE C AS AN ENERGY OPTION

Total

1. A) To meet long-term electricity demands of B.C. consumers and businesses, a number of different sources of electricity may be required. Please indicate whether you strongly support, support, oppose, or strongly oppose each of the following ways of meeting the demand.

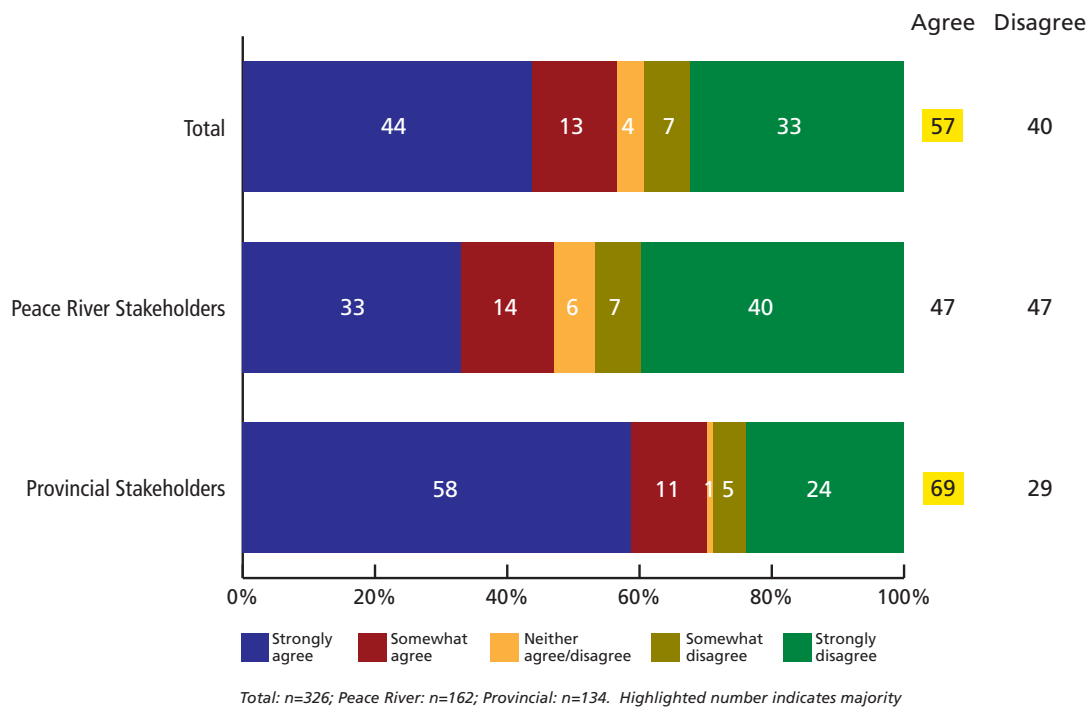


- Overall, highest levels of support were for **reinvesting in upgrades of the province's current generating assets** (98% "strongly support" or "support"), **taking more aggressive steps to encourage energy conservation** (90%) and **making major investments in renewable energy such as wind, solar, and biomass** (89%).
- In total, 55% of participants support **building a major hydroelectric dam**, while 45% of participants oppose. When broken down, 69% of provincial participants were supportive, while 55% of Peace River participants were opposed.
- A large majority of all participants supported **taking more aggressive steps to encourage energy conservation**, Peace River participants more so than provincial participants (95% vs. 83%, respectively).
- Provincial participants were more likely than Peace River participants to oppose **importing more electricity from outside B.C.** (87% vs. 79%).

LEVEL OF AGREEMENT FOR CONSIDERATION OF SITE C AS AN ENERGY OPTION

Total, Peace River and Provincial Stakeholders

1. B) In thinking about a possible new Site C dam, please indicate your level of agreement with the following statement: "Site C should be considered if conservation, refitting existing equipment and investments in new sources, including sustainable energy, were not going to be enough to meet the energy demands of consumers and business in B.C."

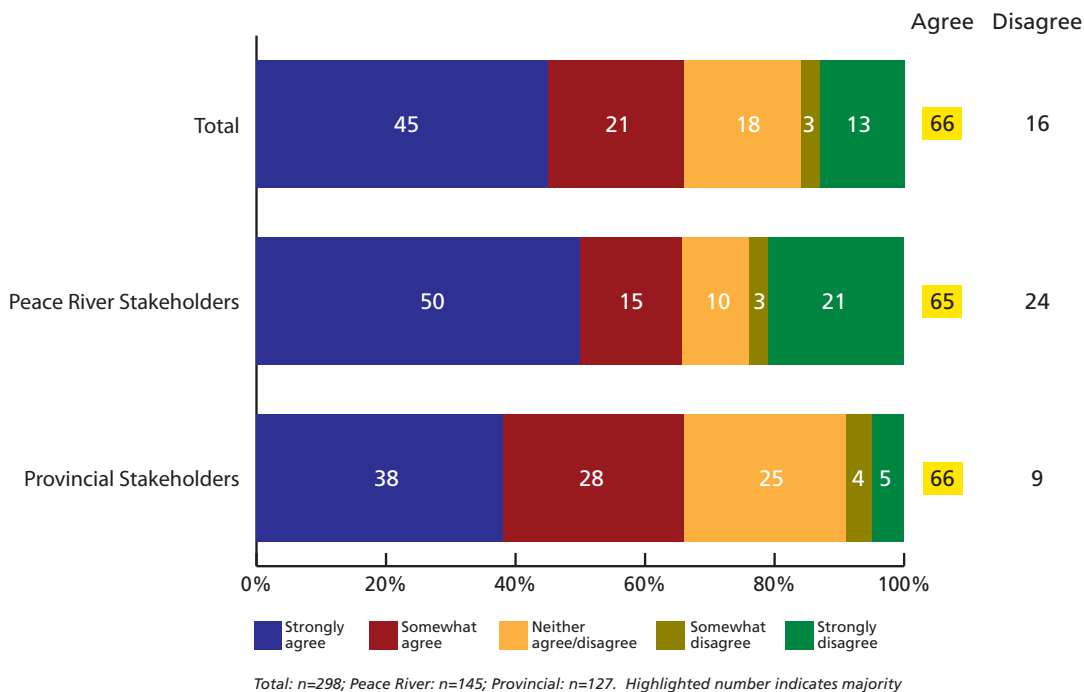


- 57% of participants agreed "strongly" or "somewhat" when asked to state their level of agreement with pursuing Site C if conservation, upgrading existing equipment, and investing in new sources were insufficient to meet the energy demands of B.C.
- 69% of provincial participants agreed with the statement, and Peace River participants were evenly split, with 47% agreeing and 47% disagreeing.

LEVEL OF AGREEMENT WITH PUBLIC ACCESS TO POWERHOUSE ACCESS BRIDGE AND ASSOCIATED ACCESS ROADS

Total, Peace River and Provincial Stakeholders

2. A) Please indicate your level of agreement with the following statement: "If the Site C project were to proceed, the powerhouse access bridge should be available for public use once construction is completed."

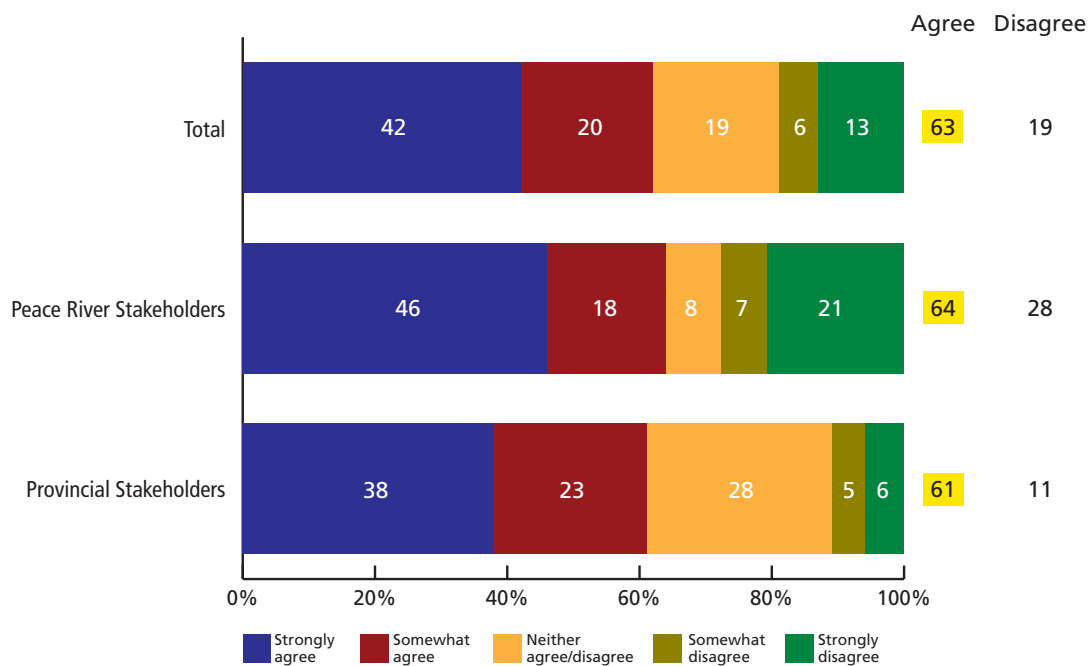


- Participants were asked to indicate their level of agreement with providing public access to the powerhouse access bridge once construction of Site C is completed, should Site C proceed. 66% of participants agreed "strongly" or "somewhat".
- Peace River participants and provincial participants were equally likely to agree with allowing public use of the powerhouse access bridge after construction is completed. However, those from the Peace River region were more likely to "strongly" agree than those from outside the region (50% vs. 38%, respectively).

LEVEL OF AGREEMENT WITH PUBLIC ACCESS TO THE POWERHOUSE ACCESS BRIDGE AND ACCESS ROADS AS A COMMUNITY BENEFIT

Total, Peace River and Provincial Stakeholders

2. C) Please indicate your level of agreement with the following statement: "Public use of the powerhouse access bridge and access roads would be a community benefit to the Peace River region."



Total: n=296; Peace River: n=144; Provincial: n=127. Highlighted number indicates majority

- 63% of participants agreed "strongly" or "somewhat" that public access will benefit the community.
- Provincial participants were almost as likely as those in the Peace River region to agree that public access will provide a community benefit to the region.

PROVINCIAL AND COMMUNITY BENEFITS – PARK INFRASTRUCTURE IMPROVEMENTS AS COMMUNITY BENEFITS

3. A) Local parks and amenities may include sites and amenities along the potential reservoir or downstream river, or sites and amenities closer to towns and residential areas. In your opinion, what types of park infrastructure improvements would create a lasting benefit for the Peace River region?
- Of 217 responses, the most commonly mentioned benefits were:
 - > **Campgrounds or RV parks** (84 mentions)
 - > **Boat launch or marina** (79 mentions)
 - > **Nature or wilderness parks** (57 mentions)
 - Participants from the Peace River region were especially likely to cite **nature or wilderness parks** and **boat launches or marinas**.

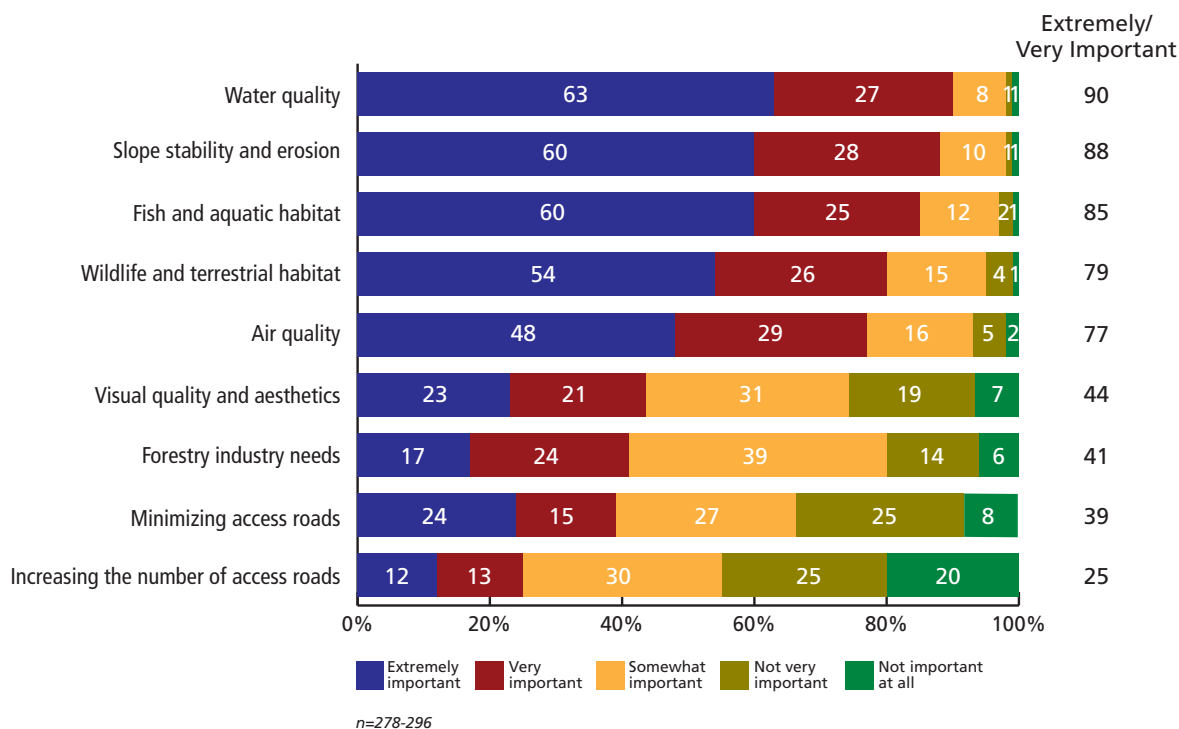
OTHER COMMUNITY BENEFITS

3. B) Improvements to other amenities in the Peace River region could include such things as additional city infrastructure (water and sewer), social services, housing and policing. Please indicate which of these suggested improvements could create a lasting benefit for the Peace River region.
- A total of 195 participants provided suggestions:
 - > **Additional city infrastructure such as water and sewer** (90 mentions)
 - > **Housing** (58 mentions)
 - > **Policing** (48 mentions)
 - > **Social services** (47 mentions)
 - > **Improved roads** (23 mentions)
 - **Housing** was more likely to be considered a lasting benefit by provincial participants than by Peace River participants.

IMPORTANCE OF FACTORS IN RESERVOIR PREPARATION

Total

4. A) If Site C were to proceed to construction, reservoir preparation would be performed at various times over a seven-year period. During this reservoir clearing and preparation period, trade-offs between different interests may be required. How important are each of the following factors during the reservoir preparation period?

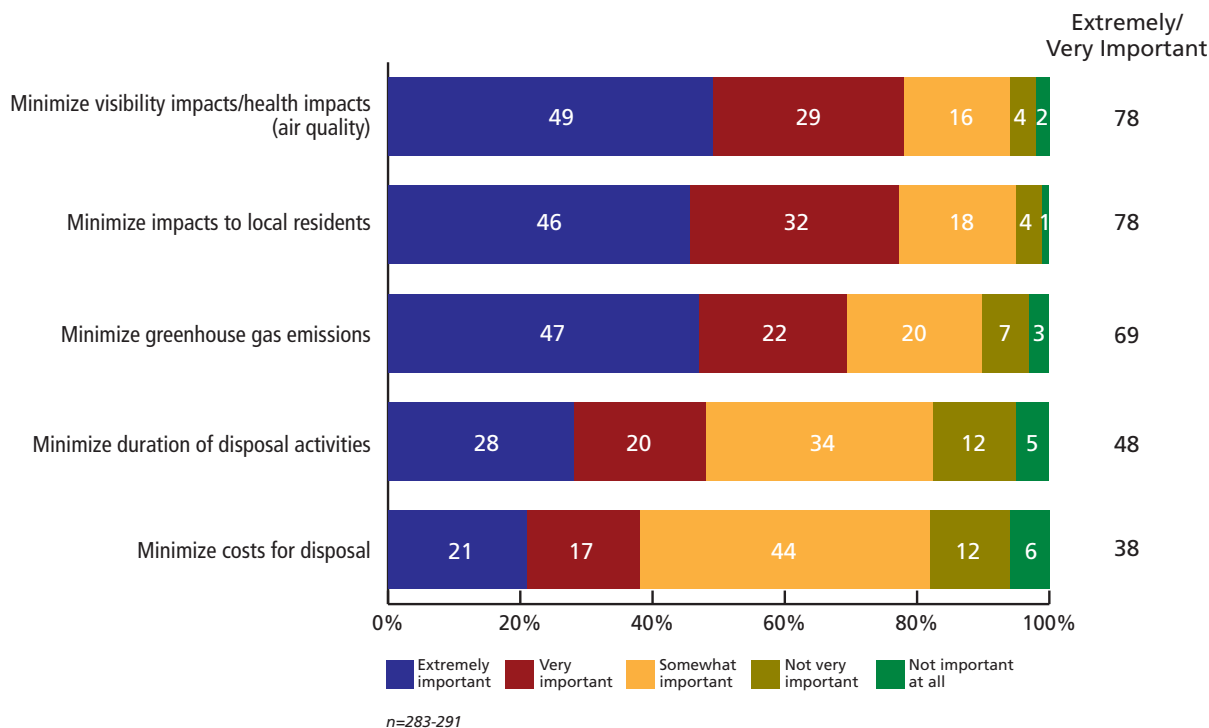


- Overall, five factors were considered “extremely” or “very” important by a large majority of participants:
 - > Water quality (90%)
 - > Slope stability and erosion (88%)
 - > Fish and aquatic habitat (85%)
 - > Wildlife and terrestrial habitat (79%)
 - > Air quality (77%)
- Three of nine factors were more likely to be considered “extremely” or “very” important by Peace River participants than by provincial participants: **visual quality and aesthetics** (51% vs. 36%, respectively), **minimizing access roads** (44% vs. 31%), and **air quality** (83% vs. 71%).

IMPORTANCE OF FACTORS IN WASTE VEGETATION DISPOSAL

Total

4. B) Waste vegetation disposal options such as burning, conversion to bioenergy, chipping and composting will be identified and assessed for feasibility and for impacts on community health, air quality, environment, project schedule and costs, if the project were to proceed. How important are each of the following factors in waste vegetation disposal?

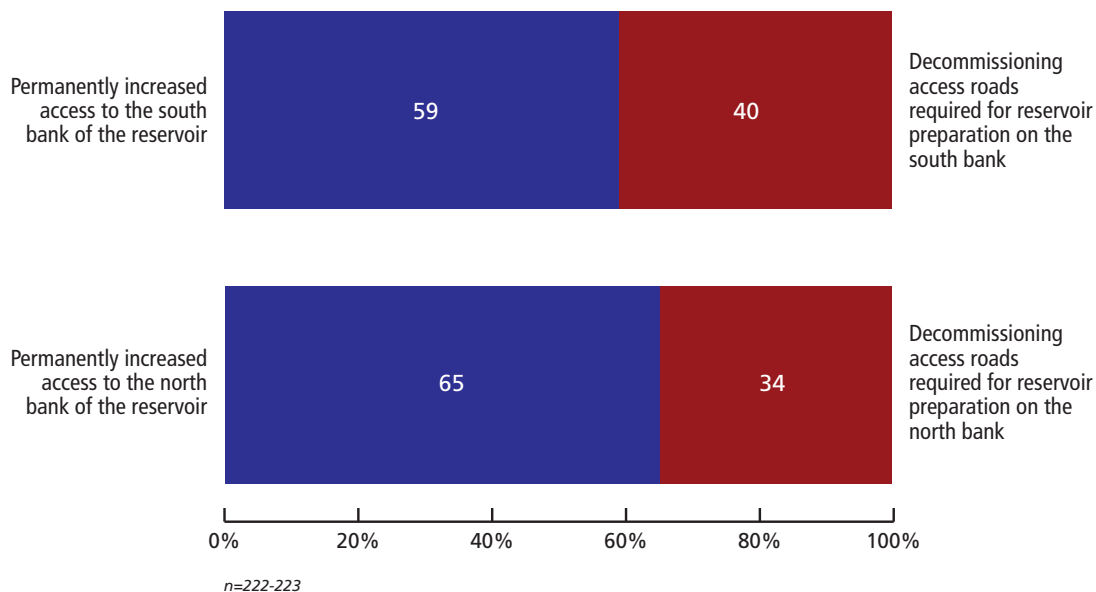


- Overall, **minimizing visibility and health impacts** and **minimizing impacts to local residents** were both rated “extremely” or “very” important by 78% of participants, followed by **minimizing greenhouse gas emissions** (69%).
- Peace River participants were more likely than provincial participants to rate **minimizing visibility and health impacts** (82% vs. 71%, respectively) and **minimizing impacts to local residents** (83% vs. 70%) as “extremely” or “very” important.

PREFERENCE FOR ACCESS TO RESERVOIR

Total

4. C) Access roads would need to be built for reservoir preparation activities. Generally these roads would be decommissioned once project activities are complete, however depending on the area, some of these roads could be considered for permanent access to the reservoir. For the selections below, please choose which is more important to you:

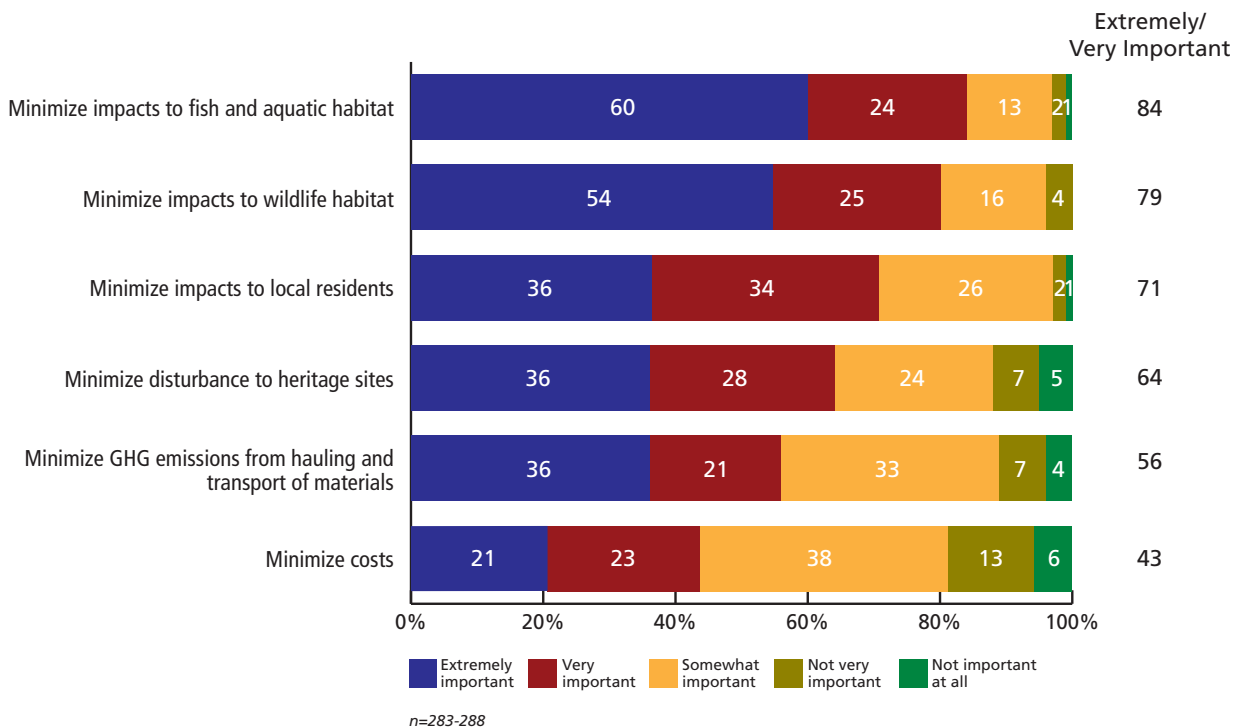


- Participants were more likely to support permanently increasing access to the south bank of the reservoir than decommissioning access roads required for reservoir preparation on the south bank (59% vs. 40%, respectively).
- Participants were more likely to support permanently increasing access to the north bank of the reservoir than decommissioning access roads required for reservoir preparation on the north bank (65% vs. 34%, respectively).
- Peace River and provincial participants provided similar responses to the access road trade-off question.

IMPORTANCE OF FACTORS IN IDENTIFYING DAM CONSTRUCTION MATERIALS AND RELOCATION AREAS FOR EXCAVATED SOIL AND ROCK

Total

5. A) How important are each of the following factors in identifying sources of construction materials and relocation areas for excavated soil and rock?

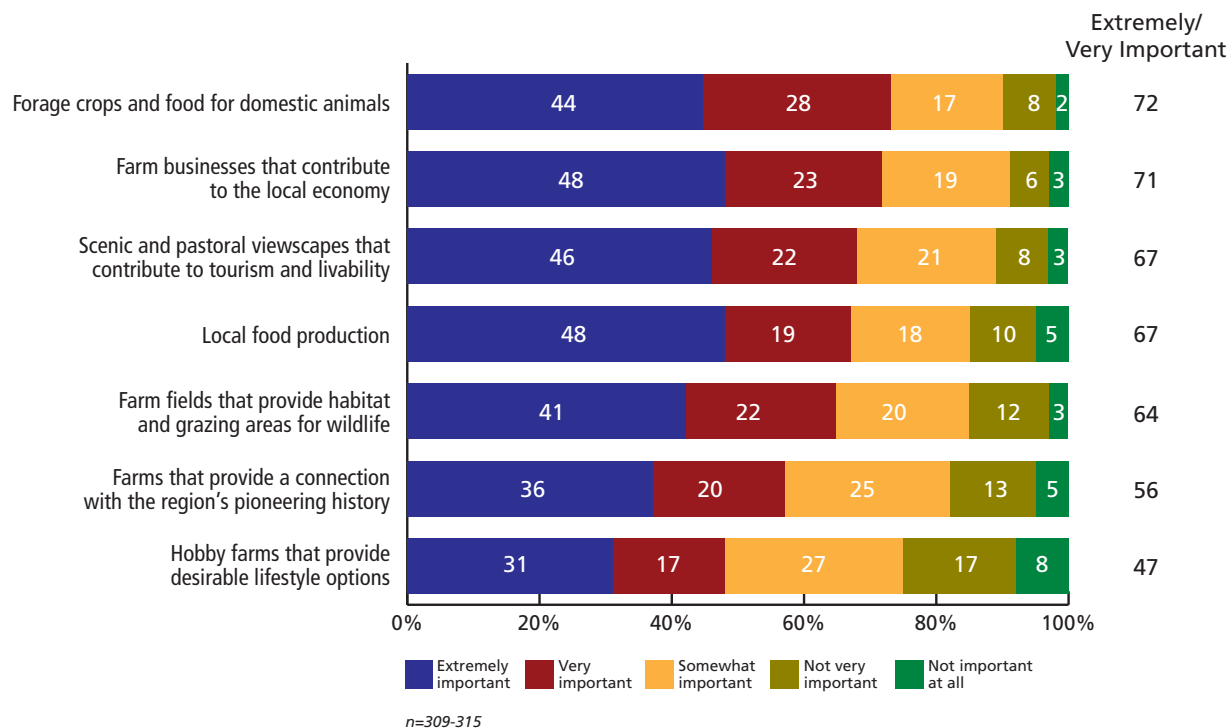


- Overall, most important to participants was **minimizing impacts to fish and aquatic habitat** (84%), followed by **minimizing impacts to wildlife habitat** (79%) and **to local residents** (71%).
- Compared to provincial participants, those from the Peace River region were more likely to consider it important to **minimize GHG emissions from hauling and transport of materials** (63% vs. 48%, respectively), **impacts to local residents** (76% vs. 63%) or **impacts to fish and aquatic habitat** (89% vs. 79%).

IMPORTANCE OF ASPECTS OF VALLEY-BASED AGRICULTURE TO PEACE RIVER REGION

Total

6. B) How important do you think each of the following aspects of valley-based agriculture are to the Peace River region?

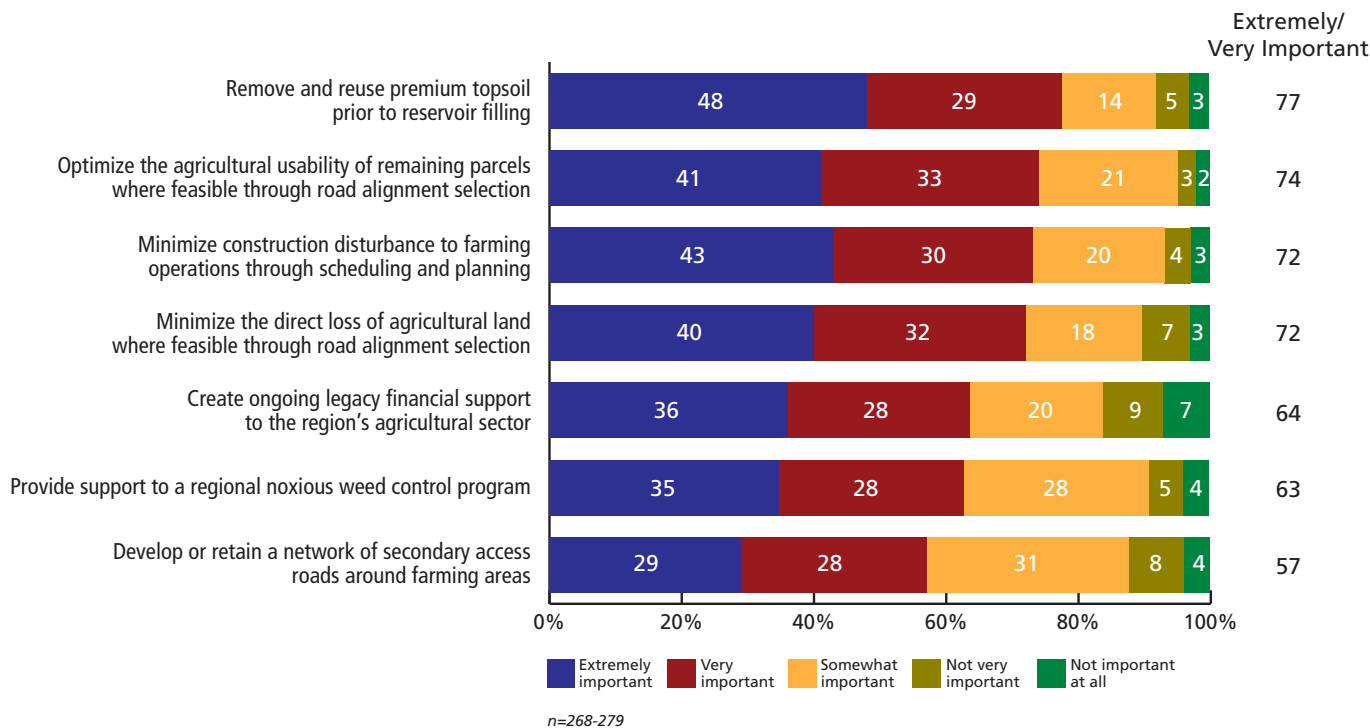


- Overall, the following aspects were rated as “extremely” or “very” important:
 - > Forage crops and food for domestic animals (72%)
 - > Farm businesses that contribute to the local economy (71%)
 - > Scenic and pastoral viewsapes that contribute to tourism and livability (67%)
 - > Local food production (67%)
- Peace River participants attached greater importance than provincial participants to hobby farms that provide desirable lifestyle options (55% vs. 38%, respectively) and to scenic and pastoral viewsapes (74% vs. 58%).

IMPORTANCE OF OPTIONS FOR MITIGATION AND ENHANCEMENT OF AGRICULTURAL DEVELOPMENT

Total

6. C) How important do you think each of the following options are for mitigation and enhancement of agricultural development in the region?

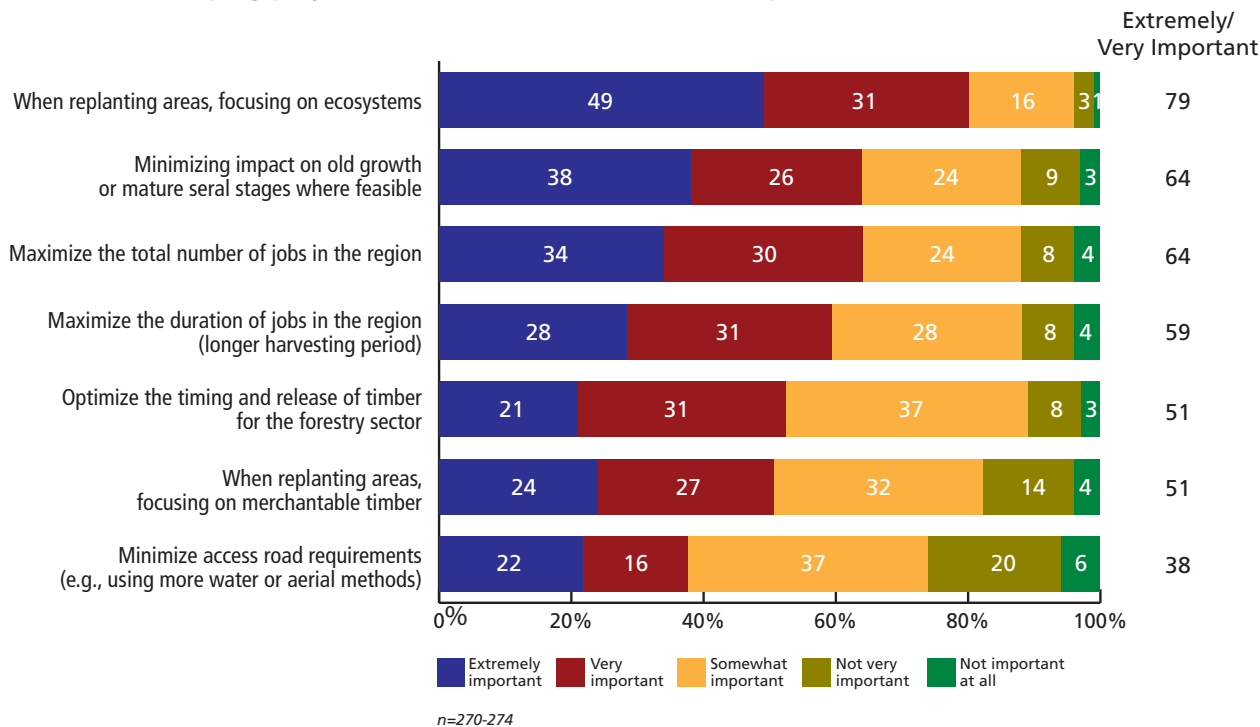


- Overall, four options were rated “extremely” or “very” important by approximately three-quarters of participants:
 - > Removing and reusing premium topsoil prior to reservoir filling (77%)
 - > Optimizing the agricultural usability of remaining parcels where feasible through road alignment selection (74%)
 - > Minimizing construction disturbance to farming operations through scheduling and planning (72%)
 - > Minimizing the direct loss of agricultural land where feasible through road alignment selection (72%)
- Peace River and provincial participants generally provided similar importance ratings overall to all seven mitigation and enhancement options.

IMPORTANCE OF FACTORS IN DEVELOPING PROJECT-RELATED HARVEST AND RECLAMATION PLANS

Total

6. D) How important do you think it is to consider each of the following factors in developing project-related harvest and reclamation plans?



- While overall levels of importance on all seven factors tend to be similar among Peace River and provincial participants, those from the Peace River region were much more likely to provide ratings of “extremely” important to **minimizing impact on old growth or mature seral stages** (50% vs. 25%, respectively) and **minimizing access road requirements** (30% vs. 12%).

FURTHER COMMENTS

Total – Peace River and Provincial Stakeholders

Participants were asked to provide any further comments on any aspect of the potential Site C project. Of a total of 345 feedback forms, 144 participants provided comments.

	Total ¹	Peace River Stakeholders	Provincial Stakeholders
Base	144	81	47 ²
	#	#	#
Negative			
Consider alternative technologies/other energy sources (solar/wind/nuclear/geothermal/retrofitting/etc.)	36	22	12
The survey is biased/not objective	23	17	2
Site C will destroy valuable farm land/ food production capability	15	11	2
Pursue energy conservation/efficiency/ Power Smart	11	5	5
Do not build the dam	9	6	2
Site C will have serious impact on residents/ social consequences	8	6	1
Site C will destroy wildlife/habitat	7	5	1
Stop exporting B.C.'s energy	6	2	2
Concerned about the stability of the Peace River banks	5	4	1
Site C will have a negative impact on Peace River Valley's recreational value	5	5	-
BC Hydro does not keep its promises	4	4	-
Site C will have a severe impact on the environment (gen)	4	2	-
Other Negative	16	11	1
No Comments	2	-	2

1. Total is greater than sum of Peace River and provincial stakeholders, as not all participants could be identified by region. A response may include more than one key theme. 2. Caution: small base size.

- Many of the comments that were negative toward Site C advocate **considering other alternatives** (36) or suggest that **survey materials were biased** (23). Several others relate to the potential negative impacts of Site C, such as **destruction of farm land** (15) or **wildlife habitat** (7), as well as **negative consequences for residents** (8).

	Total ¹	Peace River Stakeholders	Provincial Stakeholders
Base	144	81	47 ²
	#	#	#
Positive			
Site C will provide needed power for B.C./B.C.'s future needs	10	2	8
It will provide low-cost power/keep our energy costs low	8	2	6
Site C should be built/built as quickly as possible/it is necessary	7	2	5
Site C will create a lake/other recreational assets	7	5	2
Site C will supply us with clean power	5	2	3
It will create jobs within B.C./economic benefits within B.C.	5	4	1
The plans have been in place for a long time/construction costs are rising	5	1	4
Site C is the lowest impact solution	4	1	3
We should be exporting power/selling the excess	4	2	2
Site C will provide renewable/sustainable power	3	1	2
Other Positive	3	1	2
Neutral			
Need more information about impact/effects of the dam	10	6	2
Affected people need to be offered adequate compensation/relocated	6	3	1
It is important to improve the highways/provide improved access to Chetwynd, Fort St. John	5	2	-
Provide lower/discounted power for those affected by the dam	5	1	3
The reservoir needs to be created properly/the level controlled	4	3	-
Plan for additional turbines for the future	3	2	-
Concerned about private company ownership of power/BC Hydro should be in control	3	-	2
Minimize the effects on wildlife	3	2	1
Remove the flood reserve	3	3	-
Other Neutral	32	18	13

1. Total is greater than sum of Peace River and provincial stakeholders, as not all participants could be identified by region. A response may include more than one key theme. 2. Caution: small base size.

- Of the 144 further comments, those that were positive toward Site C relate to potential benefits deriving from the dam, including **providing needed power for B.C.** (10), **providing low-cost power** (8) and **creating a lake or other recreational benefits** (7).
- Among neutral comments made, the most common refer to the **need for more information about the effects of Site C** (10).

SUBMISSIONS

In addition to comments on feedback forms, open-ended feedback was also received in the form of 72 submissions, of which 13 were from the Peace River and 26 from outside the region. The remaining 33 could not be identified by region. It should be noted that a submission may include more than one of the following themes.

Within the 72 submissions received, there were:

- 20 recommendations that BC Hydro consider alternative technologies instead of Site C
- 16 statements that Site C would destroy valuable farm land
- 12 recommendations that Site C be built
- 12 suggestions that Site C will provide needed power for B.C.'s future
- 12 statements that Site C would destroy wildlife habitat
- 12 comments that the multi-stage process to evaluate Site C, including consultation, is not objective
- 11 mentions promoting further energy conservation
- 6 comments that B.C. should be exporting power
- 5 statements that Site C would provide renewable power
- 5 statements that Site C would offer low-cost power
- 5 statements that Site C would create jobs in B.C.
- 5 expressions of concern about private ownership of power in the province

KEY THEME SUMMARY OF STAKEHOLDER MEETINGS

In addition to Synovate's analysis of the feedback form results and written submissions, Kirk & Co. Consulting, a professional consultation firm, analyzed the key themes from 26 stakeholder meetings.

Protests

Between 7-15 people attended stakeholder meetings in Hudson's Hope, Dawson Creek and two stakeholder meetings in Fort St. John, to protest against and register their opposition to Site C. Please refer to the stakeholder meeting notes for more information³.

The following represents a review of the key themes from each of the stakeholder meetings to determine the most frequently mentioned topics in the meetings. It is important to note that the key theme summary represents a qualitative analysis of stakeholder meeting notes, as opposed to the quantitative analysis of feedback forms noted above.

1. **Local Impacts – Stakeholders raised concerns regarding local impacts from the potential Site C project** (A key theme at 14 meetings)

Many groups were concerned about potential local impacts from the Site C project, including sloughing of the reservoir banks and the resulting impact of sloughing on recreation, general environmental impacts, and impacts to agricultural land from flooding. Several groups were concerned about localized issues such as public access to the powerhouse access bridge. Participants also expressed concern about the associated infrastructure needed to support an influx of workers building the project, should it proceed.

2. **Local Benefits – Stakeholders were interested in potential community benefits for the region** (A key theme at 13 meetings)

Many participants were interested in potential community benefits arising from the Site C project, including business contracting and training opportunities for local workers, public access to the powerhouse access bridge and other infrastructure investments, and the possibility of preferential or reduced electricity rates for Peace River residents. Several stakeholder groups also specifically noted the need for long-lasting legacy benefits in the Peace River region, suggesting free power for the Peace River region and improved communication transmission such as broadband Internet and cellular phone service.

3. **Powerhouse Access Bridge and Other Infrastructure – Stakeholders expressed caution regarding the benefits of potential infrastructure investments for the Peace River region** (A key theme at 13 meetings)

A number of stakeholder groups weighed the benefits and impacts of potential infrastructure investments, such as public access to the powerhouse access bridge, access to agricultural lands alongside the reservoir, and a highway connection between Chetwynd and Fort St. John. While some groups were in favour of public access to the powerhouse access bridge, others expressed concern about shifting travel patterns in the region. For example, some were concerned that a new connection between Fort St. John and Chetwynd could become a preferred route over existing routes that go through Dawson Creek and Hudson's Hope. Some groups noted the benefits of providing workers from Chetwynd with direct access to the dam site and shorter travel times to Fort St. John via public access to the powerhouse access bridge.

3. Complete Stakeholder Meeting notes can be found in Appendix 1 or online at www.bchydro.com/sitec.

4. Energy Alternatives – Stakeholders said there should be further consultation about alternatives to Site C (A key theme at 12 meetings)

A number of stakeholder meetings included a discussion of alternatives to Site C, particularly promotion of conservation and net metering, as well as wind, geothermal and tidal technologies. Stakeholders asked whether BC Hydro had examined alternatives to the same degree as Site C is being examined and suggested that further consultation should be focused on discussing energy alternatives.

5. Multi-Stage Evaluation and Consultation Process – Stakeholders expressed a desire to continue consultation on Site C and some said BC Hydro’s multi-stage evaluation and consultation process should be independent of BC Hydro. (A key theme at 11 meetings)

A number of stakeholder meetings involved discussion of the multi-stage evaluation and consultation process used to review Site C. Several stakeholders were interested in continuing to participate in consultation meetings with BC Hydro, while others felt that the consultation should instead be led by an independent body. A few stakeholders were interested in what information would be considered by the provincial government when deciding whether to proceed with Site C.

6. Business/Procurement Opportunities – Stakeholders requested notification of opportunities for local workers on the Site C project and asked how the project would be procured (A key theme at 9 meetings)

Some stakeholder groups were interested in opportunities for local workers to be employed or trained for construction of the project, including opportunities for the establishment of trade programs at local colleges and universities. Other stakeholders were interested in how the project would be procured; some participants suggested that private companies could assist in construction, while others suggested that the Site C project should be a public project built by BC Hydro.

7. Reservoir Slope Stability – Stakeholders expressed concerns about potential slope stability issues and sloughing of the reservoir banks (A key theme at 6 meetings)

Several stakeholder groups expressed concerns about the stability of the reservoir banks, and the impacts that potential sloughing could have on recreational opportunities. Some stakeholder groups asked for further information on slope stability, while others suggested ways that BC Hydro could protect the shoreline.

8. Reservoir Preparation – Stakeholders said they wanted BC Hydro to ensure the reservoir would be prepared appropriately to preserve recreational opportunities on the reservoir (A key theme at 6 meetings)

Several stakeholder groups noted that BC Hydro must properly clear the reservoir prior to flooding to preserve safe recreational opportunities in the reservoir. A few stakeholder groups expressed an interest in business opportunities for local workers in reservoir preparation.

9. Support for Site C – Stakeholders expressed support for Site C as an energy option (A key theme at 5 meetings)

Stakeholders expressed support for continuing to examine Site C as an energy option to meet B.C.’s future electricity needs.

10. Stage 2 Studies – Stakeholders were interested in more information about Stage 2 studies (A key theme at 5 meetings)

A few stakeholder groups were interested in more information about Stage 2 environmental and engineering studies, including scope and methodology. Some stakeholders said study results should have been available sooner.

KEY THEME SUMMARY OF COMMENTS FROM OPEN HOUSE QUESTION AND ANSWER SESSIONS

Project Definition Consultation, Round 2 included seven public open houses, which provided opportunities for the public to engage with the Site C project team on a one-on-one or small group basis. In addition, six open houses included one-hour moderated question and answer sessions. The Fort Nelson open house did not have a question and answer session due to low attendance and the ability of the project team to answer individuals' questions on a one-on-one basis.

Protests

Approximately 10-25 people attended the Dawson Creek/Pouce Coupe and Fort St. John open houses to protest against and register their opposition to Site C. Please refer to the open house question and answer session meeting notes for more information⁴.

1. Alternatives – Participants suggested that BC Hydro should explore and invest in “green” alternatives such as conservation, wind and solar before looking at Site C (A key theme at 5 open houses)

Participants suggested that BC Hydro should explore and invest in “green” alternatives such as conservation, wind and solar before looking at Site C. Participants suggested that BC Hydro should also improve the efficiency of existing generation facilities. Some participants suggested a change of BC Hydro's mandate to allow the production of energy from sources other than hydroelectricity.

2. Local Impacts – Participants were concerned about potential impacts to agricultural land, archaeological sites, wildlife and air quality (A key theme at 4 open houses)

Participants expressed concerns about potential impacts of Site C on the environment, particularly agricultural land, archaeological sites, wildlife and air quality. Other participants were concerned about socio-economic impacts, including the effects of reservoir sloughing on recreation opportunities.

3. Need for the Site C project – Participants were skeptical of the need for additional power from Site C (A key theme at 3 open houses)

Participants questioned whether the Site C project would be necessary, given current and projected demand for energy in B.C. Participants suggested that future demand could be met through increased conservation efforts and other alternative forms of energy.

4. Opposition to Site C – Participants expressed opposition to the construction of Site C (A key theme at 2 open houses)

Participants expressed opposition to the construction of Site C as a resource to meet B.C.'s future energy needs. Generally, opposition was linked to concern with impacts to the Peace River region such as loss of agricultural land, sloughing of reservoir banks and other environmental impacts.

4. Complete Open House Question and Answer Session meeting notes can be found in Appendix 2 or online at www.bchydro.com/sitec.

Project Definition Consultation, Round 2 Summary Report

1. BACKGROUND – POTENTIAL SITE C HYDRO PROJECT

Project Overview

Site C, a potential third dam and generating station on the Peace River in northeastern B.C., is one of several resource options being considered to help meet B.C.'s future energy needs.

The potential Site C dam would be located seven kilometres southwest of Fort St. John on the Peace River. As the third dam and generating station on the Peace River, Site C would use water already stored in the Williston Reservoir upstream of the existing W.A.C. Bennett and Peace Canyon dams to generate electricity. Site C would produce about one-third of the electricity produced at the W.A.C. Bennett Dam, with one-twentieth the reservoir area. As currently designed, Site C would provide approximately 900 megawatts of capacity, and produce about 4,600 gigawatt hours of electricity each year – enough energy to power approximately 460,000 homes.

The potential Site C dam would include an earthfill dam, 1,100 metres in length, with 300 metres of concrete structures located on the south bank for the spillway and power intakes. The reservoir would be 83 kilometres long and would have a maximum normal fluctuation of +/- 0.9 metres (three feet). Average daily and monthly downstream flows would not change appreciably from what they are today.

If built, Site C would be publicly owned. Early interim project cost estimates indicate that Site C could cost between \$5 billion and \$6.6 billion, including direct construction costs, contingency allowances, inflation, escalation, capital overhead and interest during construction. Cost estimates would be updated at the end of each stage of project review, should the project proceed.

Multi-Stage Evaluation and Consultation Process

BC Hydro is taking a stage-by-stage approach to the evaluation of Site C as a potential resource option for meeting B.C.'s future electricity needs. At the end of each stage of review, BC Hydro will make a recommendation to government for a decision on whether to proceed to the next stage of project planning and evaluation.

BC Hydro is currently in Stage 2, Project Definition and Consultation. Stage 2 includes Pre-Consultation (December 2007 – February 2008) and two rounds of further consultation: Project Definition Consultation, Round 1 (May – June 2008) and Project Definition Consultation, Round 2 (October – December 2008).

In addition, Stage 2 involves extensive engineering, environmental and technical work to further define the potential project and update decades-old studies, as well as to conduct new studies and technical work. Stage 2 will run through to fall 2009 when BC Hydro will make a recommendation to government for a decision on whether to proceed to the next stage of project planning and evaluation.

2. BACKGROUND – PUBLIC AND STAKEHOLDER CONSULTATION

There were more than 1,600 local, regional and provincial participants in Pre-Consultation (December 2007 – February 2008) and Project Definition Consultation, Round 1 (May – June 2008).

2.1 Pre-Consultation (December 2007 – February 2008)

The 2007 *BC Energy Plan* called for BC Hydro to “enter into initial discussions with First Nations, the Province of Alberta and communities to discuss Site C to ensure that communications regarding the potential project and the processes being followed are well known.” In Pre-Consultation, BC Hydro asked participants **how they wanted to be consulted** and about the **topics they wished to discuss** in the next phase of consultation, Project Definition Consultation.

Pre-Consultation was held from December 4, 2007 to February 15, 2008 and offered multiple opportunities for the public and local, regional and provincial stakeholders to participate and provide their input. More than 680 people participated in Pre-Consultation, which included:

- Pre-Consultation Discussion Guide and Feedback Form
- Stakeholder meetings (48)
- Open House (1)
- Website and Online Feedback Form
- Submissions (fax, email, phone and mail)
- Toll-free Site C information line
- Fort St. John Community Consultation Office

For further information on Pre-Consultation, including results, please view the Pre-Consultation Summary Report, available at www.bchydro.com/sitec.

2.2 Project Definition Consultation, Round 1 (May – June 2008)

Project Definition Consultation, Round 1, which incorporated stakeholder input received in Pre-Consultation, consulted the public and local, regional and provincial stakeholders on key impacts, benefits and features of the potential Site C project. The consultation sought feedback on elements of project design, recreation, infrastructure, local impacts, land uses and community benefits.

2.2.1 Project Definition Consultation, Round 1 Participation

- 936 total participants in Project Definition Consultation, Round 1
- 284 people attended 29 stakeholder meetings
- 380 people attended 10 open houses
- 22 submissions (fax, email, phone and mail)
- 250 people visited the Fort St. John Community Consultation Office between May 1, 2008 and June 30, 2008
- A total of 224 feedback forms were returned at stakeholder meetings, open houses, through the Fort St. John Community Consultation Office, and by web, email, fax and mail

2.2.2 Project Definition Consultation, Round 1 Results

Results from feedback forms, stakeholder meetings and open houses showed that participants had a strong interest in avoiding or mitigating local impacts, particularly potential socio-economic impacts associated with an influx of construction workers. Environmental concerns such as impacts to air quality, water and land were also raised, and were generally deemed more important than factors such as dependable and low-cost energy.

Participants were interested in potential local community benefits associated with the Site C project, particularly upgrades to infrastructure such as roads, bridges, parks and health facilities.

Participants were also interested in the multi-stage evaluation and consultation process, the BC Hydro and government decision-making processes and timelines, alternatives to Site C, and the further promotion of conservation.

Key Results from Feedback Forms:

From a total of 936 participants in Project Definition Consultation, Round 1, 224 participants returned feedback forms.

- In a paired trade-off exercise, participants were asked which of two evaluation criteria is most important when making assessments about Site C. Results showed that participants placed greater importance on environmental impacts to air quality, water and land over dependable and low-cost energy.
- 66% of participants agreed that B.C. will need more electricity even after achieving all possible conservation.
- In evaluating the importance of nine potential community and provincial benefits, a large majority of participants rated each benefit as at least somewhat important. Highest in overall importance was low-emission energy (rated “extremely” or “very” important by 82%), followed by dependable energy (75%).
- 64% of participants indicated that they agree (“strongly” or “somewhat” agree) with the Reservoir Impact Lines approach to recognizing the different property and land use impacts.
- In evaluating the importance of eight factors related to water management, participants rated fish and fish habitat (85%) and wildlife and wildlife habitat (81%) as “extremely” or “very” important.
- When asked to evaluate factors to be considered when evaluating potential reservoir recreation, participants indicated that providing minimal impacts to the environment (63%) and designating new parks and protected areas (60%) were most important.
- When asked about seven recreational opportunities, participants indicated they are most likely to use the reservoir for day use (56% “very” or “somewhat” likely), followed by camping (55%), hiking (47%) and fishing (45%).
- When asked for their preference of two options for accessing the reservoir for recreation, 54% of participants said they would prefer to see a network of roads providing easy recreational access while 46% said they would prefer to keep the reservoir in its natural state and have people access it by boat or on foot.

- Regardless of their preference for type of access, 58% of participants stated that they would be at least somewhat likely to use the reservoir for recreation if there was public access.
- When asked to rate factors to consider when evaluating relocation of four segments of Highway 29, participants rated safety and environmental impacts as most important (between 66-69%), followed by heritage sites (53-57%), impacts on private property and scenic view opportunities (between 39-44%), and cost (35-37%).
- When asked to rate factors to consider when housing out-of-town workers, participants selected minimizing impact on local housing costs (62%) and minimizing the need for additional services (60%) as “extremely” or “very” important.
- When asked about the potential increase of fog in the Peace River valley, participants believed that the greatest impacts would be on the airport (62% of respondents selected “major impact”) and highways (54%), followed by recreation (31%) and agriculture (27%).
- When asked about factors to be considered when evaluating options to mitigate impacts on heritage resources, participants most often selected identifying and recovering unique regional heritage artifacts (70%) and respecting cultural priorities for artifacts associated with specific communities (65%).

Further Comments:

Of the 224 participants who returned feedback forms in Project Definition Consultation, Round 1, 102 participants provided “Further Comments”.

Of the 102 “Further Comments”:

- 22 expressed opposition to the Site C project
- 19 indicated that BC Hydro should explore alternative energy sources
- 14 cited a need to promote conservation of the existing power supply
- 13 expressed concern with potential environmental impacts of Site C
- 12 stated that B.C. needs the power produced from Site C
- 10 expressed support for building Site C

Submissions:

Open-ended feedback was also received in the form of 22 submissions, of which 9 were from the Peace River region and 8 were from outside the region. The remaining 5 could not be identified by region. Of the 22 submissions:

- 6 expressed support for continuing to pursue Site C as an option
- 5 expressed concern about the negative environmental impacts of the project
- 5 stated that there has not been enough consultation with the public
- 4 expressed opposition to the Site C project
- 4 indicated that BC Hydro should explore alternative energy sources

- 4 said that greater effort should be put into promoting conservation of the existing power supply
- 3 stated that Site C would destroy agricultural land
- 3 cited the need for more power
- 2 highlighted the positive economic impacts associated with dam construction

Key Themes from Stakeholder Meetings:

During 29 stakeholder meetings, participants raised questions and concerns on a number of topics, including:

- Local impacts (24 meetings)
- Worker impacts and housing (16 meetings)
- Environmental impacts (13 meetings)
- Multi-stage evaluation and consultation (10 meetings)
- Community benefits (9 meetings)
- Energy alternatives (5 meetings)
- Reservoir clearing (5 meetings)
- Stage 2 studies (3 meetings)
- Procurement/employment (2 meetings)
- Commitments from BC Hydro (2 meetings)
- Government policy and energy planning (2 meetings)

Key Themes from Open Houses:

During eight open house question and answer sessions, participants raised questions and concerns on a number of topics, including:

- Local impacts (7 open houses)
- Energy alternatives (6 open houses)
- Conservation (3 open houses)
- BC Hydro's mandate (3 open houses)
- Energy trade (3 open houses)
- Socio-economic impacts (2 open houses)
- Slope stability and possibility of landslides (2 open houses)

For further information on Project Definition Consultation, Round 1, please view the Project Definition Consultation, Round 1 Summary Report, available at www.bchydro.com/sitec.

3. PROJECT DEFINITION CONSULTATION, ROUND 2 (OCTOBER – DECEMBER 2008)

3.1 Purpose

Project Definition Consultation, Round 2 was held from October 1 to December 3, 2008. Round 2 Consultation incorporated public and stakeholder input from Pre-Consultation and Project Definition Consultation, Round 1, and was designed to consult the public and local, regional and provincial stakeholders on key elements of the potential Site C project.

Consultation Topics:

During Round 2, BC Hydro sought public and stakeholder feedback on the following consultation topics:

- **Site C as an energy option:** Examining the potential Site C project as it relates to other energy options, this topic compares energy options, including estimated cost comparisons.
- **Powerhouse access bridge and associated access roads:** Asking for public input about the potential for public use of the powerhouse access bridge and associated access roads.
- **Provincial and community benefits – other potential infrastructure improvements:** Outlining potential provincial benefits and exploring what communities would like to see as other potential infrastructure improvements.
- **Reservoir preparation considerations:** Outlining key elements of Site C reservoir preparation prior to flooding, including considerations regarding vegetation, stump and timber clearing, waste vegetation disposal and access roads.
- **Sourcing dam construction materials, and relocation and reclamation of excavated soil and rock:** Outlining potential sources of dam construction materials, and areas for relocation and reclamation of surplus materials from excavations.
- **Environment:** Exploring what is important to stakeholders and the public about potential project impacts on land uses such as agriculture, forestry and mining.

3.2 Public Notification

Public notice of opportunities to participate in Project Definition Consultation, Round 2 was provided through postcards, newspaper ads, radio ads, email, phone, fax, web and BC Hydro bill inserts.

- Over 5,000 emails were sent to stakeholders, inviting and reminding them of opportunities to participate in stakeholder meetings and public open houses, followed by over 2,000 invitation and reminder phone calls.
- Print ads were placed in the following newspapers inviting stakeholders to sign-up for multi-stakeholder meetings:

Alaska Highway News – September 22, 26, and October 1, 2008

Chetwynd Echo – October 17 and 24, 2008

Dawson Creek Daily News – September 26 and October 3, 2008

Dawson Creek Mirror – September 26 and October 3, 2008

Fort Nelson News – October 22 and 29, 2008

Fort St. John Northerner – September 26 and October 3, 2008
Northeast News – September 24, October 1 and 29, 2008
Mackenzie Times – October 7 and 14, 2008
Prince George Citizen – October 10 and 18, 2008
Prince George Free Press – October 8 and 17, 2008
Tumbler Ridge News – October 15 and 22, 2008
Vancouver Sun – October 1 and 10, 2008

A copy of the Stakeholder Newspaper Ad can be found in Appendix 4.

- An ad with the Project Definition Consultation, Round 2 open house schedule was placed in the following newspapers:

Alaska Highway News – November 17 and 21, 2008
Business in Vancouver – November 4, 2008
Dawson Creek Daily News – November 7 and 14, 2008
Dawson Creek Mirror – November 7 and 14, 2008
Fort Nelson News – October 22 and 29, 2008
Fort St. John Northerner – November 21, 2008
Northeast News – October 29, November 12 and 19, 2008
Prince George Citizen – October 25 and 31, 2008
Prince George Free Press – October 24 and 31, 2008
Vancouver Sun – October 23 and November 1, 2008

A copy of the Open House Newspaper Ad can be found in Appendix 5.

- Radio ads ran on the following stations between September 22 and November 23, 2008, encouraging residents to sign up for multi-stakeholder meetings and attend open houses:

Dawson Creek	Chetwynd	Fort St. John	Prince George
CJDC AM	CHAD FM	CHRX FM	CFIS FM
	CHET FM	CKFU FM	CIRX FM
		CKNL FM	CJCI FM
			CKDV FM
			CKKN FM

- A postcard mailer was sent to more than 21,000 households in Charlie Lake, Chetwynd, Dawson Creek, Hudson’s Hope, Fort Nelson, Fort St. John, Mackenzie, Pouce Coupe and Taylor. The mailer provided details about the Site C project and Project Definition Consultation, Round 2, including the open house schedule and contact information for the project.

A copy of the postcard can be found in Appendix 6.

- BC Hydro customers received a bill insert regarding the Site C project with their monthly statement between July and September 2008. Approximately 1.3 million residential customers received the insert, which included general information about the project and encouraged people to visit the project website for more information on Round 2 Consultation.

3.3 Project Definition Consultation, Round 2 Participation

- 909 total participants in Project Definition Consultation, Round 2
- 358 people attended 26 stakeholder meetings
- 326 people attended 7 open houses
- 72 submissions (fax, email, phone and mail)
- 153 people visited the community consultation offices between October 1, 2008 and December 3, 2008
- 345 feedback forms were returned at stakeholder meetings, open houses, through the community consultation offices, and by web, email, fax and mail

3.4 Project Definition Consultation, Round 2 Methods

Project Definition Consultation, Round 2 materials were first available online at www.bchydro.com/sitec on October 1, 2008. Input and feedback were collected through the following:

3.4.1 Discussion Guide and Feedback Form

A 37-page consultation discussion guide explained the purpose and scope of Project Definition Consultation, Round 2, and included a feedback form to assist in gathering input. A copy of the discussion guide and feedback form can be found in Appendix 3.

The discussion guide also provided participants with information and background about the following:

- The potential Site C project and the multi-stage evaluation and consultation process
- The environmental assessment and other regulatory processes
- How BC Hydro is addressing B.C.'s future electricity needs
- Potential impacts and benefits of the potential Site C project
- The ongoing Site C consultation, including Pre-Consultation, Project Definition Consultation, Round 1, Property Owner Consultation and First Nations Consultation
- Project Definition Consultation, Round 2 Consultation topics

The feedback form was included with the discussion guide to gather input on the Project Definition Consultation, Round 2 Consultation topics and for participants to provide additional comments. Feedback was also gathered at stakeholder meetings and open houses, by web, email, fax, mail and phone, and through the community consultation offices.

How Feedback Will Be Used

Input from Round 2 Consultation will be considered, along with technical and financial input, to refine elements of the potential project's design and to assist in defining the scope and nature of ongoing studies.

3.4.2 Web-Based Consultation

All consultation materials were available on the web (www.bchydro.com/sitec), including the feedback form, which could be completed and submitted directly from the Site C website or faxed/mailed back to the project. Of the 345 feedback forms received in Project Definition Consultation, Round 2, 177 were received online through the web-based feedback form.

3.4.3 Stakeholder Meetings

As part of Project Definition Consultation, Round 2, BC Hydro hosted 26 stakeholder/multi-stakeholder meetings, which were facilitated by Kirk & Co. Consulting Ltd. The meetings were held on the following dates and are listed in chronological order. Meetings with Peace River region stakeholders are highlighted below; all others were held with provincial stakeholders.

1.	October 2, 2008 Fort St. John/Taylor Multi-Stakeholder
2.	October 2, 2008 Fort St. John/Taylor Multi-Stakeholder
3.	October 6, 2008 North Peace Economic Development Commission
4.	October 6, 2008 Fort St. John/Taylor Multi-Stakeholder
5.	October 6, 2008 Taylor Local Government
6.	October 7, 2008 Hudson's Hope Local Government
7.	October 7, 2008 Hudson's Hope Multi-Stakeholder
8.	October 7, 2008 Hudson's Hope Multi-Stakeholder
9.	October 8, 2008 Dawson Creek/Pouce Coupe Local Government
10.	October 8, 2008 Dawson Creek/Pouce Coupe Multi-Stakeholder
11.	October 14, 2008 Fort St. John Local Government
12.	October 15, 2008 Independent Power Producers of BC
13.	October 15, 2008 Lower Mainland Multi-Stakeholder
14.	October 16, 2008 Lower Mainland Business Groups
15.	October 20, 2008 Mackenzie Local Government
16.	October 20, 2008 Mackenzie Multi-Stakeholder
17.	October 21, 2008 Prince George Local Government
18.	October 21, 2008 Prince George Multi-Stakeholder
19.	October 22, 2008 Peace River Regional District
20.	October 24, 2008 Joint Integrated Electricity Steering Committee
21.	October 27, 2008 Chetwynd Local Government
22.	October 27, 2008 Cheywynd/Tumbler Ridge Multi-Stakeholder
23.	October 27, 2008 Tumbler Ridge Local Government
24.	October 29, 2008 Nanaimo Multi-Stakeholder
25.	November 4, 2008 Fort Nelson Multi-Stakeholder
26.	November 4, 2008 Fort Nelson Local Government

A Kirk & Co. Consulting Ltd. facilitator and Site C project staff attended the stakeholder meetings. At each meeting, Site C project staff gave a short presentation on the project and consultation topics. Discussion guides and feedback forms were made available to all participants.

Participants were given an opportunity to provide their comments on the project and other matters and to ask questions of project staff. Key themes from each meeting are summarized in this report beginning on page 46. Full meeting notes from the meetings can be found in Appendix 1 or online at www.bchydro.com/sitec.

358 people attended the 26 stakeholder meetings.

Protests

Between 7-15 people attended stakeholder meetings in Hudson's Hope, Dawson Creek and two stakeholder meetings in Fort St. John to protest against and register their opposition to Site C. Please refer to the stakeholder meeting notes for more information.

3.4.4 Public Open Houses

Seven public open houses were held as part of Project Definition Consultation, Round 2.

Community	Date	Time	Location
Prince George	Mon, Nov. 3	6 p.m.– 9 p.m.	Ramada Hotel Prince George
Fort Nelson	Tues, Nov. 4	6 p.m.– 9 p.m.	Woodlands Inn
Vancouver	Wed, Nov. 5	5 p.m.– 8 p.m.	SFU at Harbour Centre
Taylor	Mon, Nov. 17	6 p.m.– 9 p.m.	Taylor Community Hall
Dawson Creek/ Pouce Coupe	Tues, Nov. 18	6 p.m.– 9 p.m.	South Peace Community Multiplex – EnCana Centre
Hudson's Hope	Wed, Nov. 19	6 p.m.– 9 p.m.	Hudson's Hope Community Hall
Fort St. John	Mon, Nov. 24	6 p.m.– 9 p.m.	Quality Inn Northern Grand

At the majority of open houses, a moderated question and answer period was held at the end of the meeting¹. While most participants engaged Site C team members in one-on-one or small group discussions during the open house portion, many also participated in the question and answer period.

326 people attended the 7 open houses, with approximately 160 people participating in question and answer sessions. Key themes of the question and answer sessions are summarized in this report beginning on page 53. Full meeting notes from the open house question and answer sessions can be found in Appendix 2 or online at www.bchydro.com/sitec.

1. The open house in Fort Nelson did not have a question and answer session due to low attendance and the ability of the project team to answer individuals' questions on a one-on-one basis.

Protests

Approximately 10-25 people attended the Dawson Creek/Pouce Coupe and Fort St. John open houses to protest against and register their opposition to Site C. Please refer to the open house question and answer session meeting notes for more information.

3.4.5 Community Consultation Offices

BC Hydro opened a community consultation office in Fort St. John on January 7, 2008, with the Honourable Richard Neufeld, Minister of Energy, Mines and Petroleum Resources, officially opening the office at an event on February 9, 2008.

The public and stakeholders were notified about the community consultation office through the Site C website, in the Pre-Consultation Discussion Guide, at stakeholder meetings, and through local newspaper advertisements. The project also issued a media advisory on January 21, 2008 to local Fort St. John media, and invited local community governments and the Peace River Regional District to the official opening on February 9.

Subsequently, in response to stakeholder requests, a community consultation office was opened in Hudson's Hope on October 7, 2008.

The purpose of the offices is to provide a place where people can get information about the Site C project, ask questions and provide feedback.

More than 150 people visited the offices between October 1 and December 3, 2008. Visitors provided their comments and asked questions of project staff. Generally, visitors were interested in:

- Picking up consultation materials including Project Definition Consultation, Round 2 discussion guides and Project Definition Consultation, Round 1 Consultation Summary Reports
- Viewing detailed maps and models in the offices
- Expressing their support for the project
- Information regarding Site C project impacts, benefits, construction timeline, and other general project inquiries
- Specific information regarding property impacts
- Returning completed feedback forms
- Contracting and business opportunities with the project

All visitors were encouraged to complete and submit a Round 2 Consultation feedback form.

4. DETAILED FINDINGS: CONSULTATION INPUT

The following provides a summary of input received through the feedback forms.

The 37-page discussion guide provided consultation participants with information about the Site C project, and asked for feedback on:

- Site C as an energy option
- The powerhouse access bridge and associated access roads
- Provincial and community benefits
- Reservoir preparation considerations
- Sourcing of dam construction materials, relocation and reclamation of excavated soil and rock, and the environment

Synovate Ltd., a professional market research firm, was commissioned by Kirk & Co. Consulting Ltd. and BC Hydro to help develop the consultation feedback form, host the online feedback form, and tabulate and analyze all feedback forms and written submissions received from Project Definition Consultation, Round 2.

345 completed feedback forms were received and tabulated between October 1, 2008 and December 3, 2008 (177 were received online and 168 in hard copy).

In addition, 72 submissions were received through fax, email, phone and mail, and those responses were coded and analyzed in conjunction with the tabulated feedback forms. The following table shows the number of completed feedback forms and submissions received as part of Project Definition Consultation, Round 2.

Feedback Forms	Number Received
Small Group Meetings	29
Open Houses	62
Community Consultation Offices	45
Fax	2
Online	177
Miscellaneous	3
Mail	27
Total	345
Submissions (fax, email, phone and mail)	72
Total	417

It should be noted that throughout this report, some percentages may not add up to 100% due to rounding. Through the feedback form, stakeholders self-identified themselves as from the Peace River region or from outside the region; analysis was completed for total stakeholders, Peace River stakeholders and provincial stakeholders.

Results from the written submissions have been summarized separately.

Participants self-select into consultation rather than being selected randomly. Consultation feedback is not comparable to an opinion poll because respondents do not constitute a random sample.

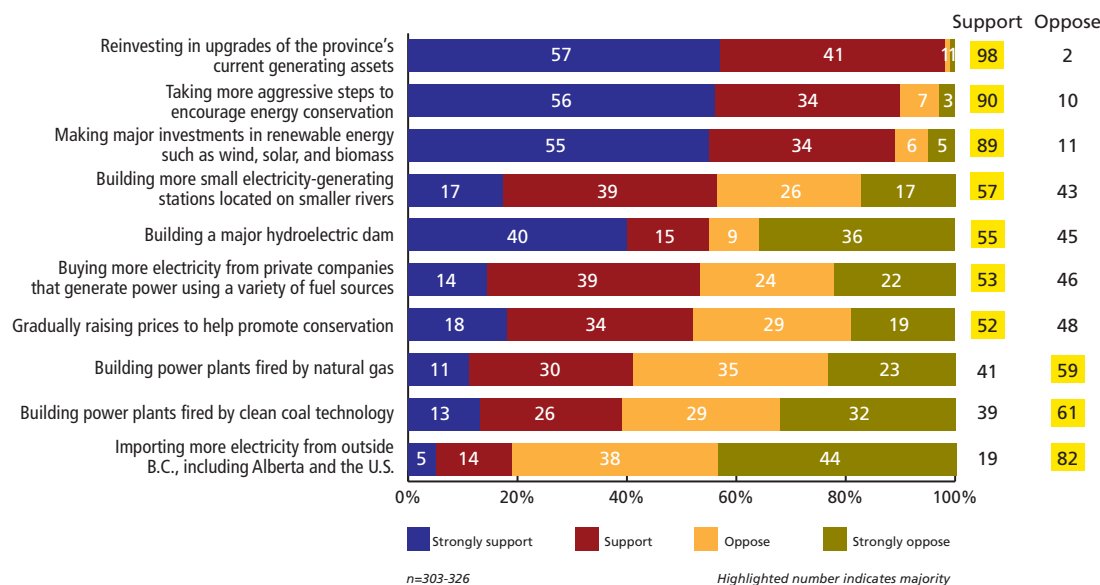
The views represented in this report reflect the priorities and concerns of the consultation participants. They may not be representative of the view of British Columbians because participants self-selected into the Project Definition Consultation, Round 2 phase. Although results are presented in the form of percentages, there are no margins of error for this data because there is no probability sample. The sample in question is based on self-selection, for which a sampling error cannot be measured.

4.1 FEEDBACK FORM

SITE C AS AN ENERGY OPTION

Total

1. A) To meet long-term electricity demands of B.C. consumers and businesses, a number of different sources of electricity may be required. Please indicate whether you strongly support, support, oppose, or strongly oppose each of the following ways of meeting the demand.

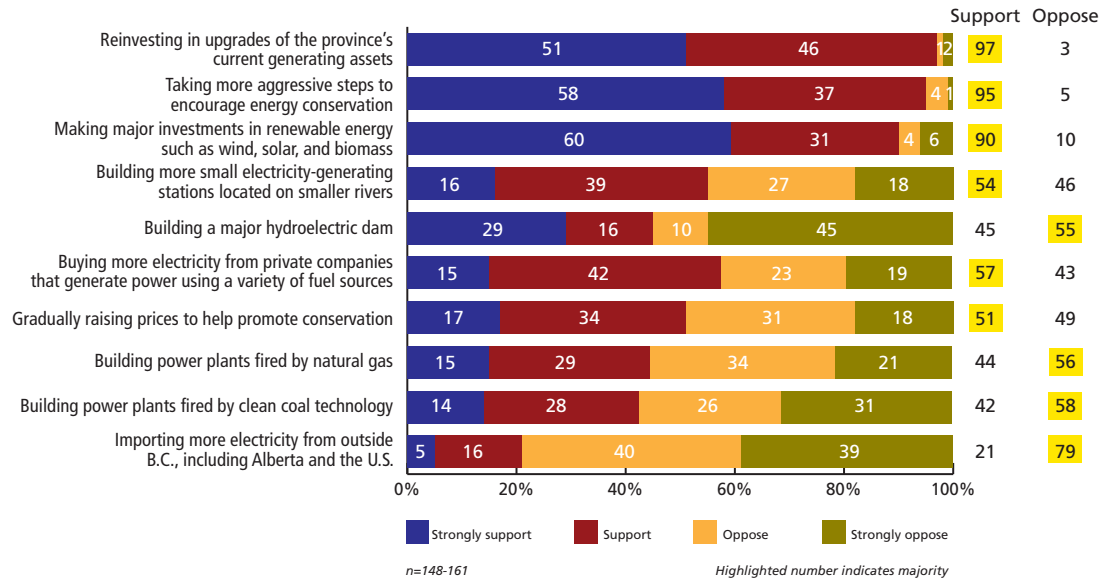


- Overall, highest levels of support were for **reinvesting in upgrades of the province's current generating assets** (98% "strongly support" or "support"), **taking more aggressive steps to encourage energy conservation** (90%) and **making major investments in renewable energy such as wind, solar, and biomass** (89%).
- The highest levels of opposition were for **importing more electricity from outside B.C.** (82% "strongly oppose" or "oppose"), **building power plants fired by clean coal technology** (61%) and **building power plants fired by natural gas** (59%).
- In total, 55% of participants support **building a major hydroelectric dam**, while 45% of participants oppose.

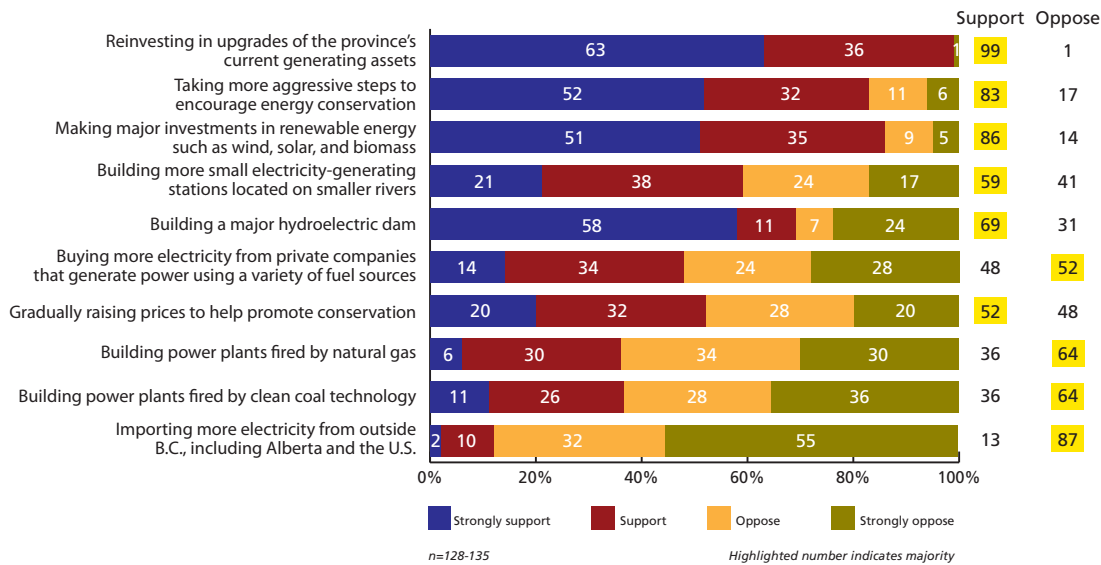
SITE C AS AN ENERGY OPTION

1. A) To meet long-term electricity demands of B.C. consumers and businesses, a number of different sources of electricity may be required. Please indicate whether you strongly support, support, oppose, or strongly oppose each of the following ways of meeting the demand.

Peace River Stakeholders



Provincial Stakeholders

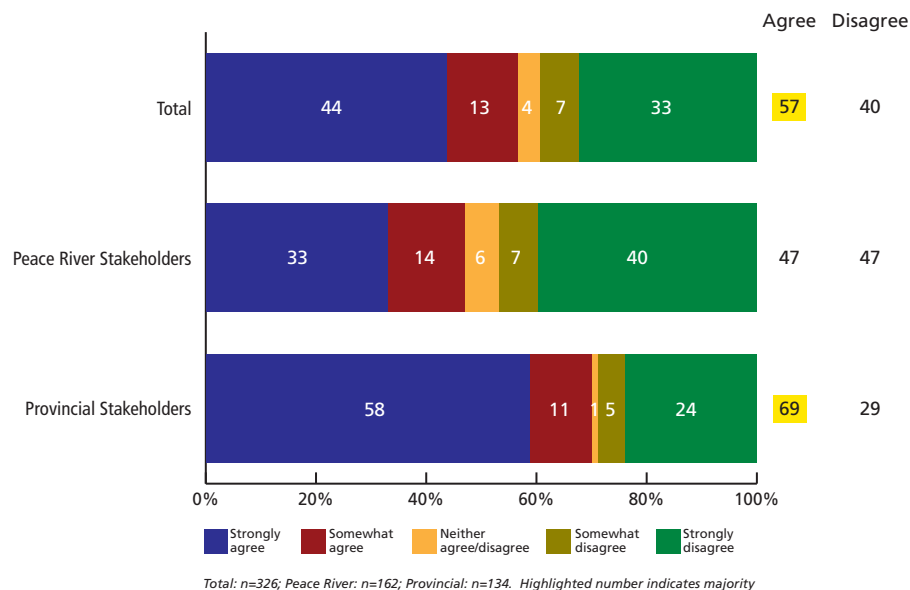


- 69% of provincial participants supported **building a major hydroelectric dam**, while 55% of Peace River participants were opposed.
- A large majority of all participants supported **taking aggressive steps to encourage energy conservation**, Peace River participants more so than provincial participants (95% vs. 83%, respectively).
- Provincial participants were more likely than Peace River participants to **oppose importing more electricity from outside B.C.** (87% vs. 79%).

LEVEL OF AGREEMENT FOR CONSIDERATION OF SITE C AS AN ENERGY OPTION

Total, Peace River and Provincial Stakeholders

1. B) In thinking about a possible new Site C dam, please indicate your level of agreement with the following statement: "Site C should be considered if conservation, refitting existing equipment and investments in new sources, including sustainable energy, were not going to be enough to meet the energy demands of consumers and business in B.C."



- 57% of participants agreed "strongly" or "somewhat" when asked to state their level of agreement with pursuing Site C if conservation, upgrading existing equipment, and investing in new sources were insufficient to meet the energy demands of B.C.
- 69% of provincial participants agreed with the statement, and Peace River participants were evenly split, with 47% agreeing and 47% disagreeing.

ADDITIONAL COMMENTS ON SITE C AS AN ENERGY OPTION

In an open-ended question, participants were invited to add additional comments related to Site C as an energy option. Among the 204 participants who did so, 103 comments were negative towards Site C, 79 were positive towards Site C and 32 were neutral. It should be noted that a response may have included more than one of the following key themes:

Of those comments that were negative towards Site C:

- 52 included recommendations of alternative technologies or energy sources
- 24 suggested pursuing energy conservation

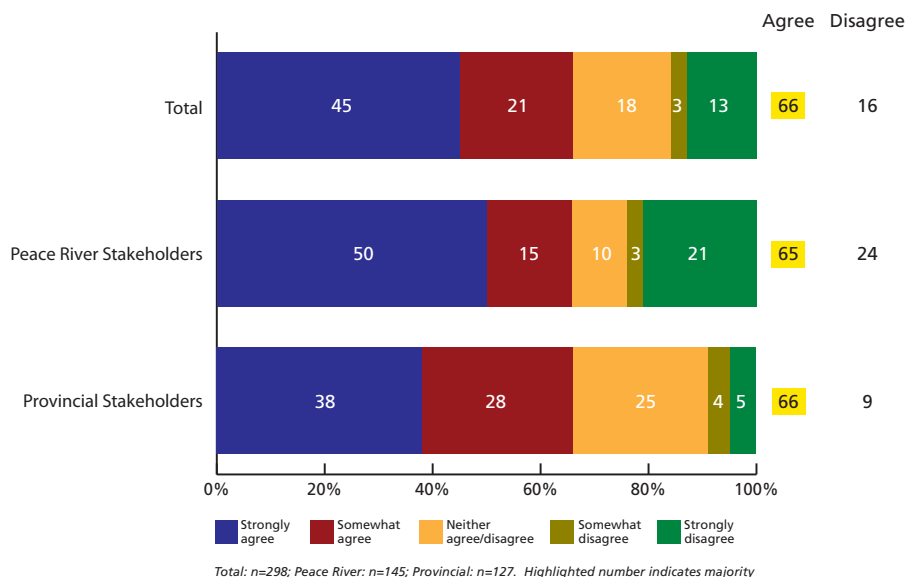
Of the comments that were positive towards Site C:

- 26 stated that Site C will provide needed power for B.C.
- 22 said that Site C should be built
- 16 said that it will provide low-cost power
- 15 said that it is the lowest impact solution
- Peace River participants were more likely than provincial participants to provide comments that are not supportive of building Site C, by a ratio of about two to one. Conversely, provincial participants were much more likely to provide comments in favour of building Site C by a ratio of about two to one.

LEVEL OF AGREEMENT WITH PUBLIC ACCESS TO POWERHOUSE ACCESS BRIDGE AND ASSOCIATED ACCESS ROADS

Total, Peace River and Provincial Stakeholders

2. A) Please indicate your level of agreement with the following statement: "If the Site C project were to proceed, the powerhouse access bridge should be available for public use once construction is completed."

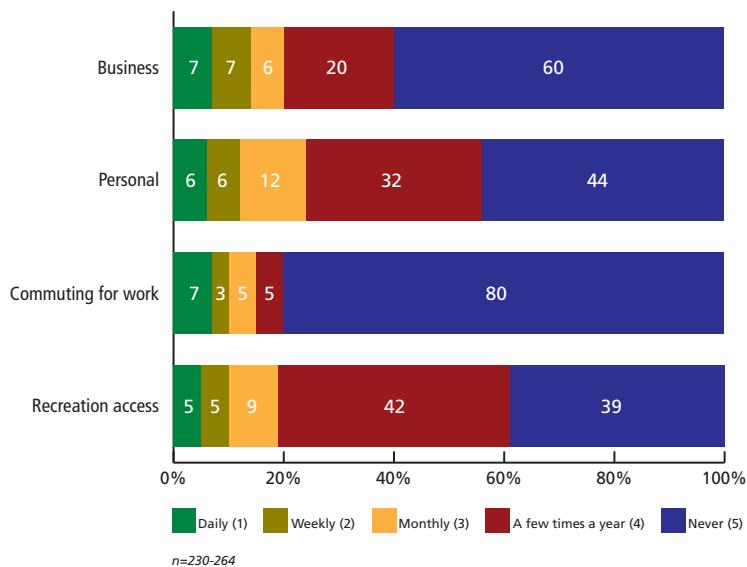


- Participants were asked to indicate their level of agreement with providing public access to the powerhouse access bridge once construction of Site C is completed, should Site C proceed. 66% of participants agreed "strongly" or "somewhat".
- Peace River participants and provincial participants were equally likely to agree with allowing public use of the powerhouse access bridge after construction is completed. However, those from the Peace River region were more likely to "strongly" agree than those from outside the region (50% vs. 38%, respectively).

FREQUENCY OF USING POWERHOUSE ACCESS BRIDGE FOR DIFFERENT PURPOSES

Total

2. B) How often would you be likely to use the powerhouse access bridge for the following purposes if it were available for public use?

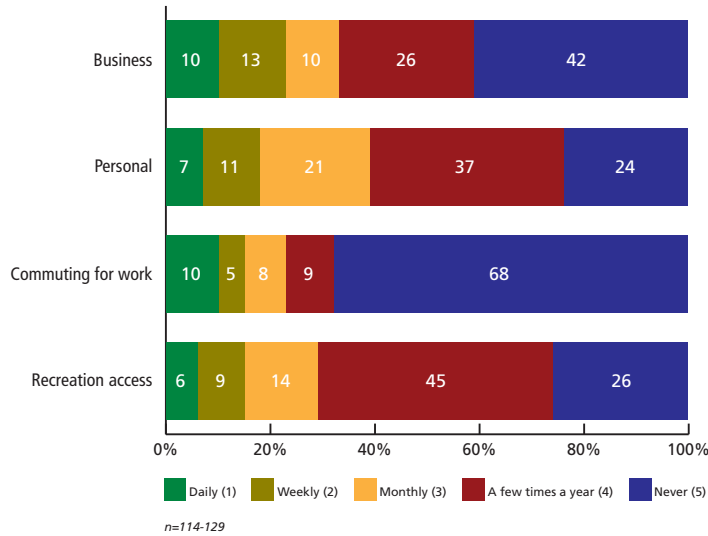


- 61% of participants were likely to use the access bridge for recreation access at least a few times a year, 56% for personal purposes, 40% for business purposes, 20% for commuting for work and 21% for other purposes.

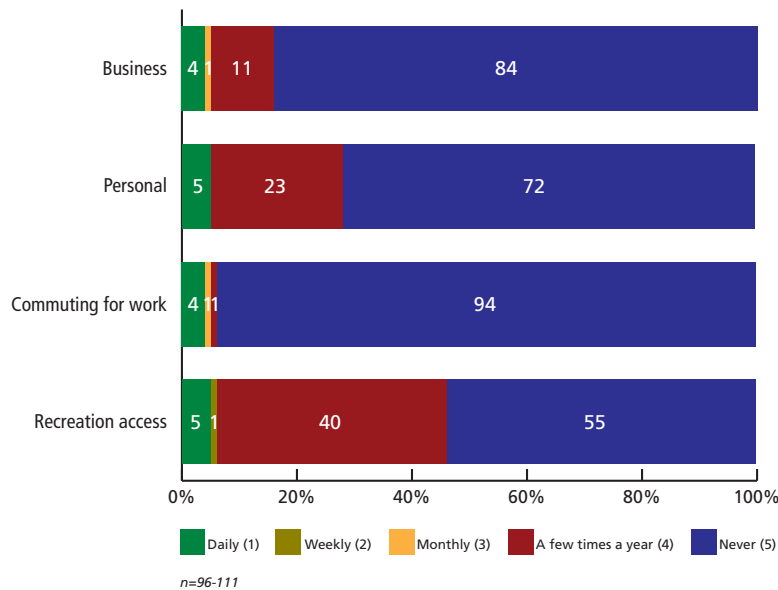
FREQUENCY OF USING POWERHOUSE ACCESS BRIDGE FOR DIFFERENT PURPOSES

2. B) How often would you be likely to use the powerhouse access bridge for the following purposes if it were available for public use?

Peace River Stakeholders



Provincial Stakeholders

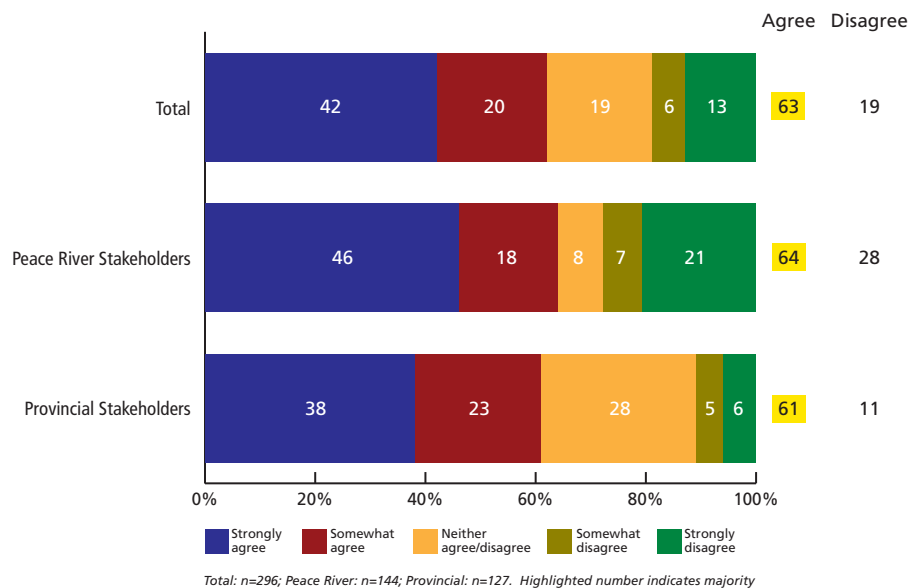


- Peace River participants were understandably much more likely than those from outside the region to use the powerhouse access bridge for all purposes.

LEVEL OF AGREEMENT WITH PUBLIC ACCESS TO THE POWERHOUSE ACCESS BRIDGE AND ACCESS ROADS AS A COMMUNITY BENEFIT

Total, Peace River and Provincial Stakeholders

2. C) Please indicate your level of agreement with the following statement: “Public use of the powerhouse access bridge and access roads would be a community benefit to the Peace River region.”



- 63% of participants agreed “strongly” or “somewhat” that public access will benefit the community.
- Provincial participants were almost as likely as those in the Peace River region to agree that public access will provide a community benefit to the region.

ADDITIONAL COMMENTS ON PUBLIC USE OF POWERHOUSE ACCESS BRIDGE AND ASSOCIATED ACCESS ROADS

In an open-ended question, participants were given the opportunity to identify other key considerations concerning potential public use of the powerhouse access bridge and associated access roads.

- Of the 128 participants who provided comments, the most common “positive” mentions were that:
 - The **access bridge will connect cities or reduce distances between cities** (28)
 - That **public access should be allowed** (15)
- The most frequent “negative” comments related to:
 - Possible **security concerns** (15)
 - **Additional strains being placed on the ecosystem** (14)
- 26 mentions expressed **outright opposition to Site C** – i.e., “do not build the dam”
- Peace River participants were more likely than provincial participants to indicate that the **access bridge will improve travel between cities**. Conversely, possible **security concerns** were mentioned more often by provincial participants than by those from the Peace River region.

PROVINCIAL AND COMMUNITY BENEFITS – PARK INFRASTRUCTURE IMPROVEMENTS AS COMMUNITY BENEFITS

3. A) Local parks and amenities may include sites and amenities along the potential reservoir or downstream river, or sites and amenities closer to towns and residential areas. In your opinion, what types of park infrastructure improvements would create a lasting benefit for the Peace River region?
- Of 217 participants, the most commonly mentioned were:
 - Campgrounds or RV parks (84 mentions)
 - Boat launch or marina (79)
 - Nature or wilderness parks (57)
 - Participants from the Peace River region were especially likely to cite **nature or wilderness parks** and **boat launches or marinas**.

OTHER COMMUNITY BENEFITS

3. B) Improvements to other amenities in the Peace River region could include such things as additional city infrastructure (water and sewer), social services, housing and policing. Please indicate which of these suggested improvements could create a lasting benefit for the Peace River region.

- A total of 195 participants provided suggestions:
 - Additional city infrastructure such as water and sewer (90 mentions)
 - Housing (58)
 - Policing (48)
 - Social services (47)
 - Improved roads (23)
- **Housing** was more likely to be considered a lasting benefit by provincial participants than by Peace River participants.

OTHER INFRASTRUCTURE IMPROVEMENTS AS COMMUNITY BENEFITS

3. C) Other than roads, bridges, parks and additional city infrastructure, what other types of infrastructure improvements would create a lasting benefit for the Peace River region?

- Among 155 participants who responded to the question, all infrastructure improvements identified received 14 or fewer mentions each. The most commonly mentioned improvements were:
 - Promote/encourage tourism/improve areas to attract tourists (14 mentions)
 - Recreational facilities (12 mentions)
 - Boat launch/marina/boat access (12 mentions)

ADDITIONAL COMMENTS ON PROVINCIAL AND COMMUNITY BENEFITS

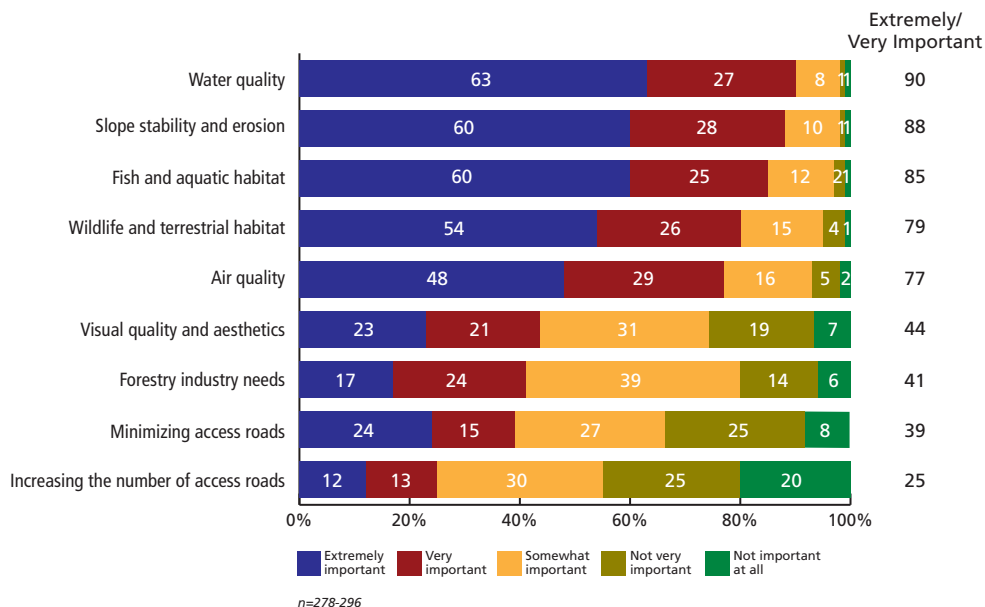
In an open-ended question, participants were given the opportunity to provide additional comments on provincial and community benefits.

- Of 76 participants who volunteered additional comments:
 - Some expressed outright **opposition to building Site C** (29 mentions)
 - Some stated that the **survey and process being followed is not objective** (13 mentions)
- Among the remaining comments, the most common referred to:
 - **Establishing a trust fund similar to the one for Columbia River Basin** (7 mentions)
 - **Mistrust that BC Hydro will keep their promises** (6 mentions)
 - The importance of providing **increased recreational facilities** (5 mentions)

IMPORTANCE OF FACTORS IN RESERVOIR PREPARATION

Total

4. A) If Site C were to proceed to construction, reservoir preparation would be performed at various times over a seven-year period. During this reservoir clearing and preparation period, trade-offs between different interests may be required. How important are each of the following factors during the reservoir preparation period?

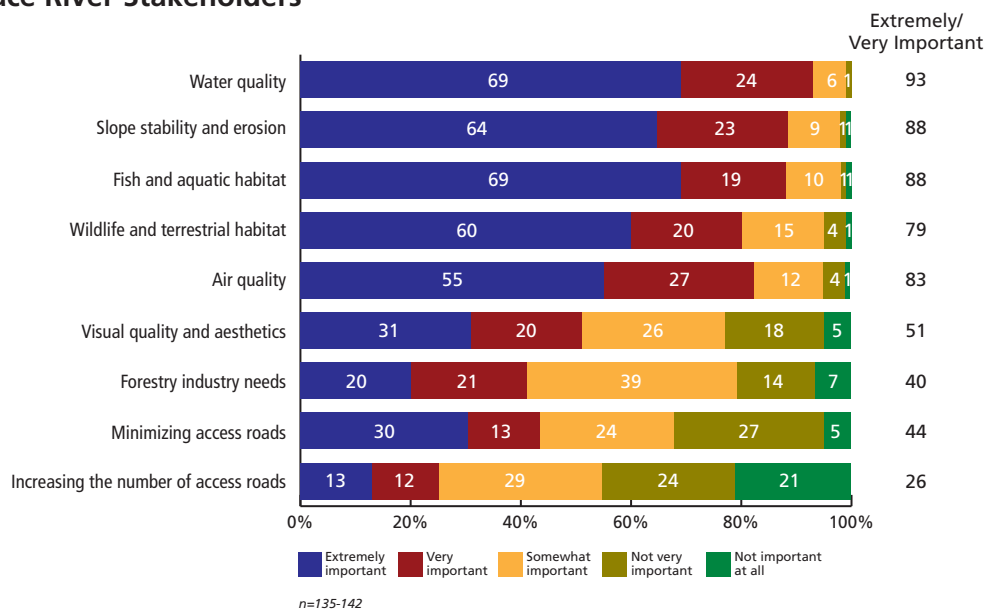


- Overall, five factors were considered “extremely” or “very” important by a large majority of participants:
 - Water quality (90%)
 - Slope stability and erosion (88%)
 - Fish and aquatic habitat (85%)
 - Wildlife and terrestrial habitat (79%)
 - Air quality (77%)

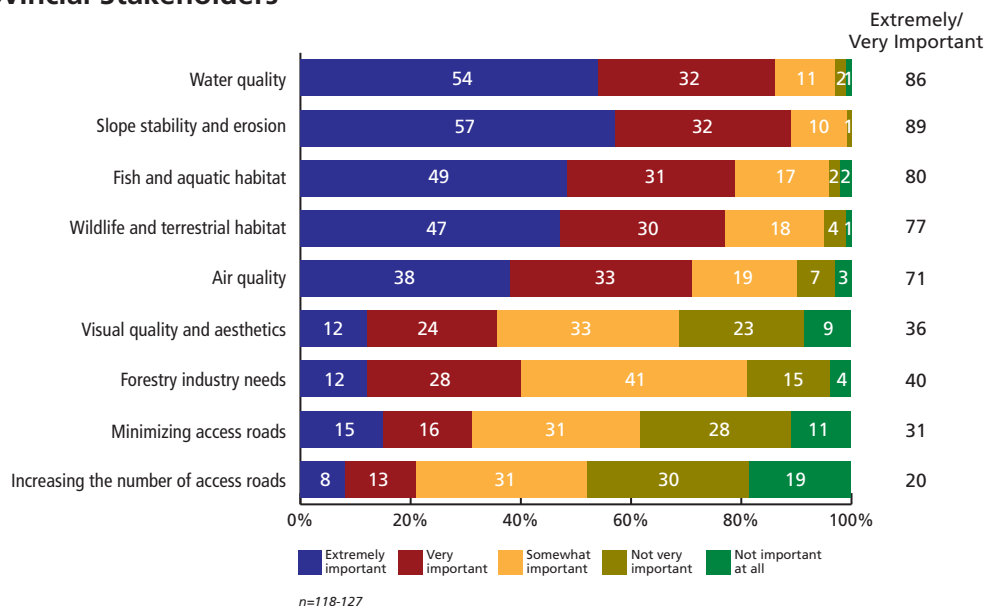
IMPORTANCE OF FACTORS IN RESERVOIR PREPARATION

4. A) If Site C were to proceed to construction, reservoir preparation would be performed at various times over a seven-year period. During this reservoir clearing and preparation period, trade-offs between different interests may be required. How important are each of the following factors during the reservoir preparation period?

Peace River Stakeholders



Provincial Stakeholders

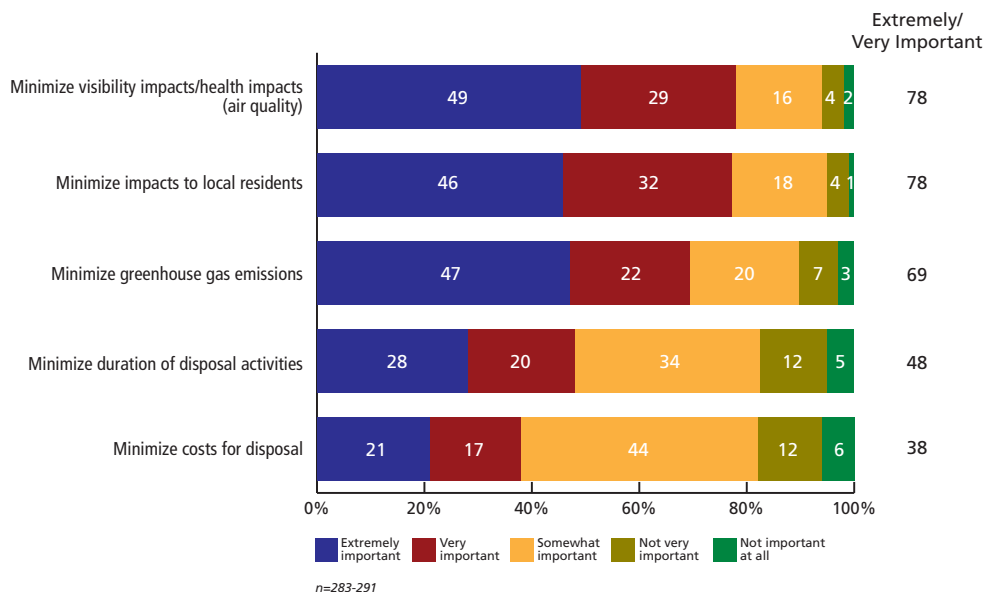


- Three of nine factors are more likely to be considered “extremely” or “very” important by Peace River participants than by provincial participants: **visual quality and aesthetics** (51% vs. 36%, respectively), **minimizing access roads** (44% vs. 31%), and **air quality** (83% vs. 71%).

IMPORTANCE OF FACTORS IN WASTE VEGETATION DISPOSAL

Total

4. B) Waste vegetation disposal options such as burning, conversion to bioenergy, chipping and composting will be identified and assessed for feasibility and for impacts on community health, air quality, environment, project schedule and costs, if the project were to proceed. How important are each of the following factors in waste vegetation disposal?

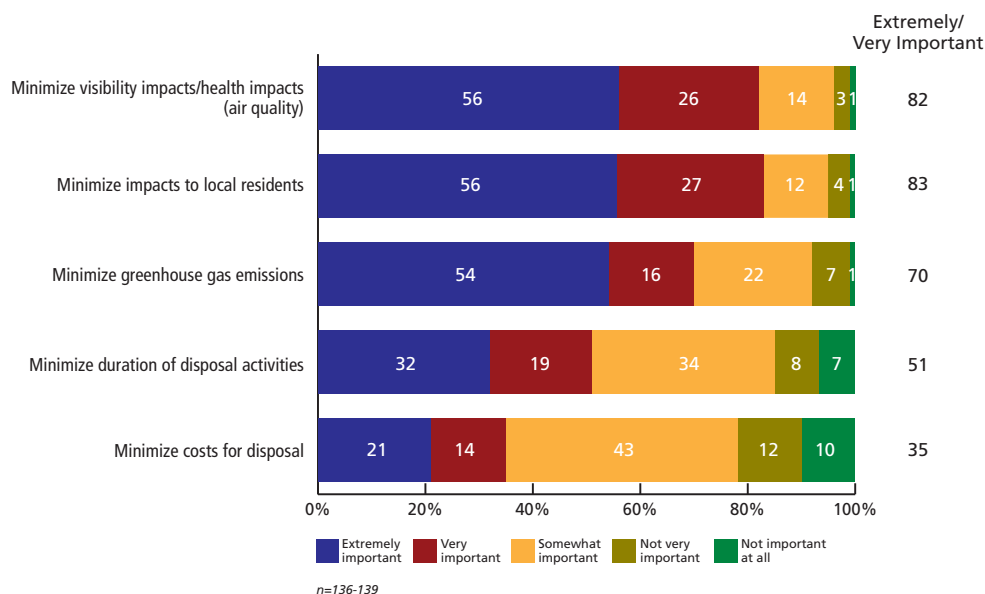


- Overall, **minimizing visibility and health impacts** and **minimizing impacts to local residents** were both rated “extremely” or “very” important by 78% of participants, followed by **minimizing greenhouse gas emissions** (69%).

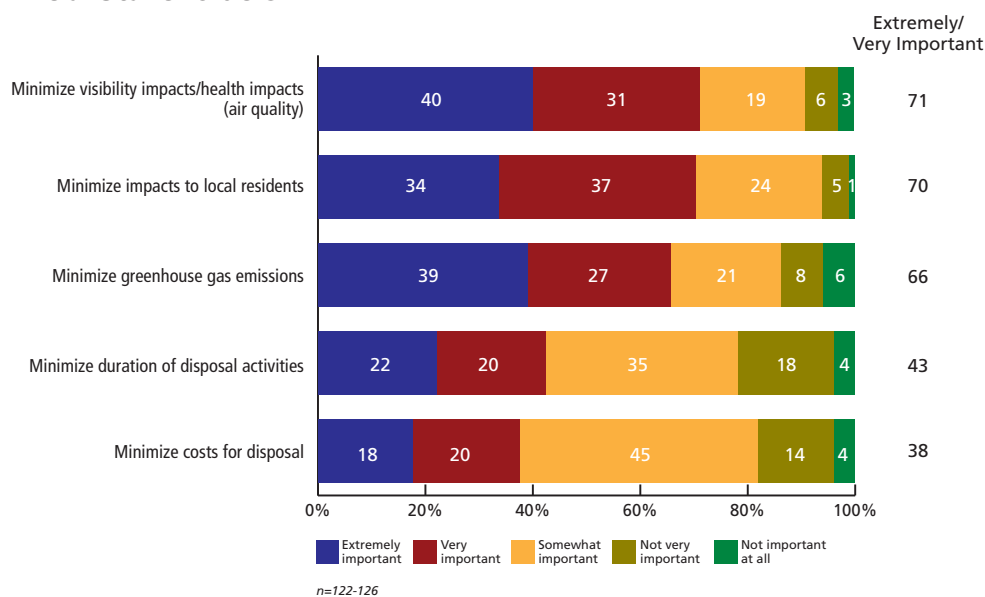
IMPORTANCE OF FACTORS IN WASTE VEGETATION DISPOSAL

4. B) Waste vegetation disposal options such as burning, conversion to bioenergy, chipping and composting will be identified and assessed for feasibility and for impacts on community health, air quality, environment, project schedule and costs, if the project were to proceed. How important are each of the following factors in waste vegetation disposal?

Peace River Stakeholders



Provincial Stakeholders

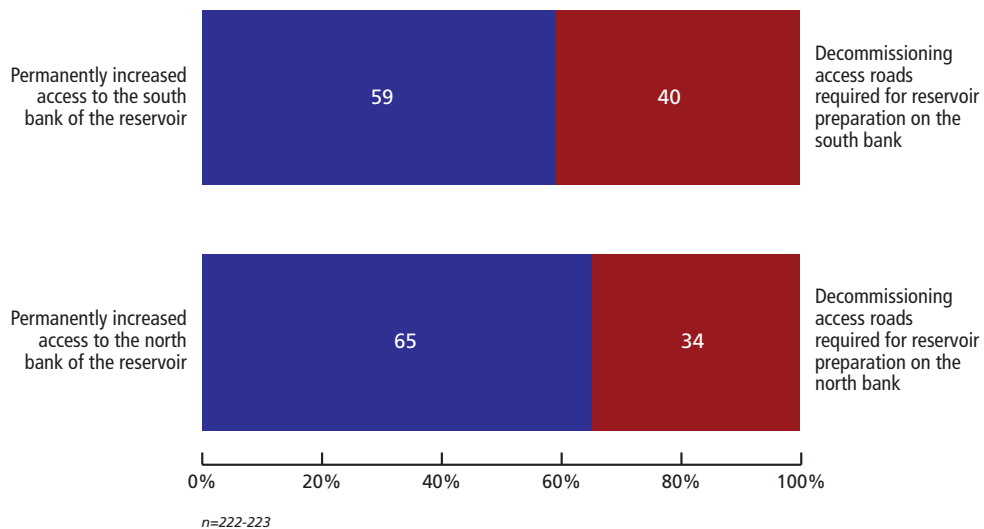


- Peace River region participants were more likely than provincial participants to rate **minimizing visibility and health impacts** (82% vs. 71%, respectively) and **minimizing impacts to local residents** (83% vs. 70%) as “extremely” or “very” important.

PREFERENCE FOR ACCESS TO RESERVOIR

Total

4. C) Access roads would need to be built for reservoir preparation activities. Generally these roads would be decommissioned once project activities are complete, however depending on the area, some of these roads could be considered for permanent access to the reservoir. For the selections below, please choose which is more important to you:

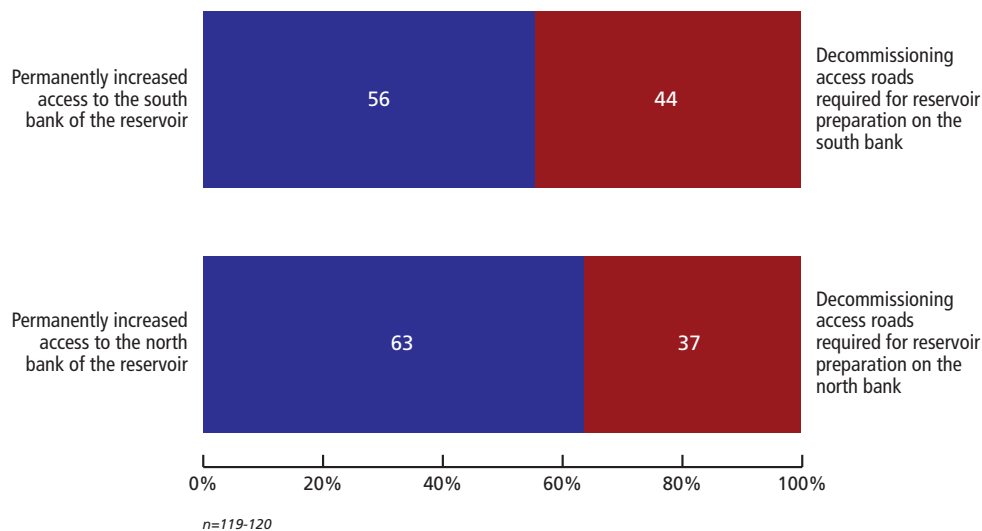


- Participants were more likely to support permanently increasing access to the south bank of the reservoir than decommissioning access roads required for reservoir preparation on the south bank (59% vs. 40%, respectively).
- Participants were more likely to support permanently increasing access to the north bank of the reservoir than decommissioning access roads required for reservoir preparation on the north bank (65% vs. 34%, respectively).

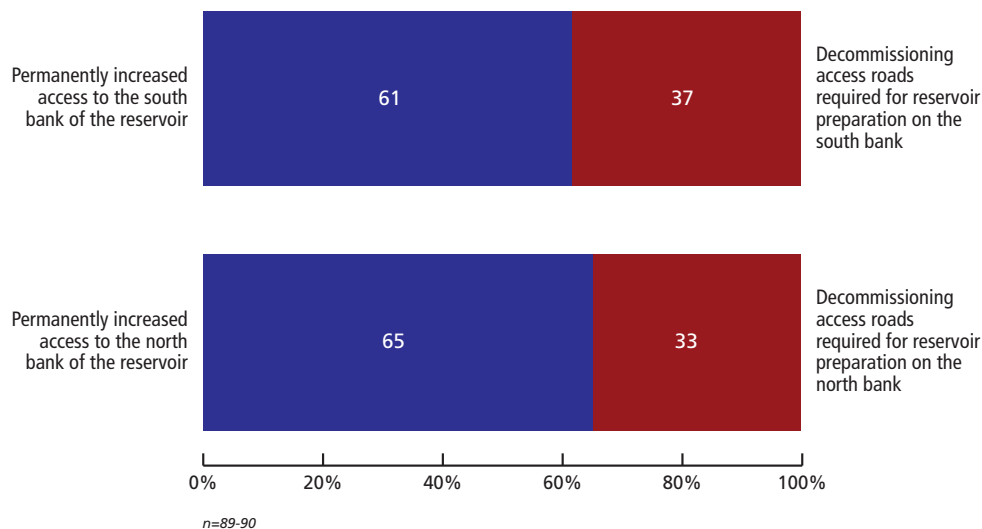
PREFERENCE FOR ACCESS TO RESERVOIR

4. C) Access roads would need to be built for reservoir preparation activities. Generally these roads would be decommissioned once project activities are complete, however depending on the area, some of these roads could be considered for permanent access to the reservoir. For the selections below, please choose which is more important to you:

Peace River Stakeholders



Provincial Stakeholders



- Peace River and provincial participants provided similar responses to the access road trade-off question.

ADDITIONAL COMMENTS ON RESERVOIR PREPARATION CONSIDERATIONS

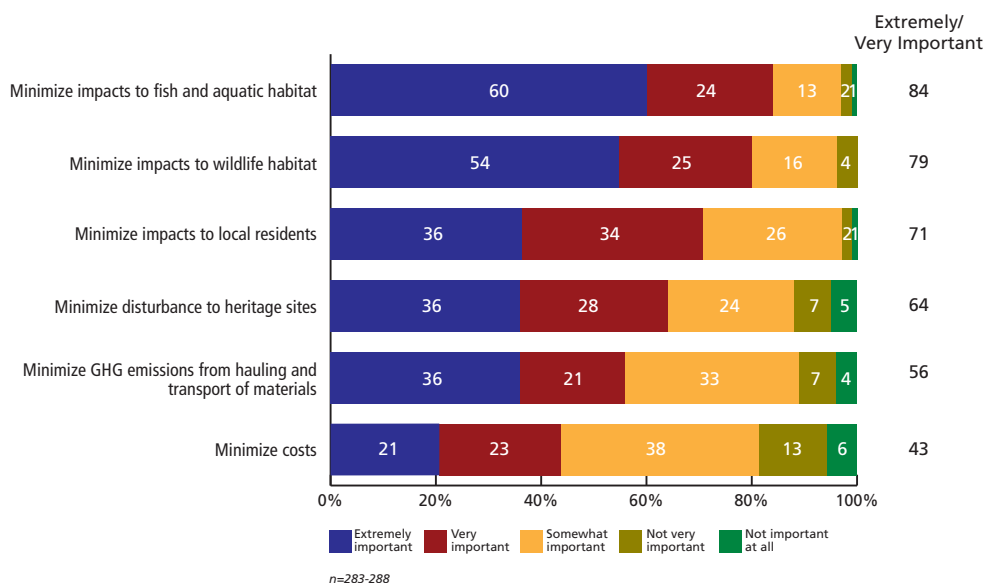
In an open-ended question, participants were given the opportunity to provide additional comments on reservoir preparation.

- Of 102 participants who provided additional comments:
 - 27 expressed their opposition to the Site C project
 - 10 stated that the survey and process being followed are not objective
 - Opposition to Site C was more likely to be stated by Peace River participants than provincial participants.
- Among the remaining open-ended comments, the most common related to:
 - Access roads improving recreational opportunities (12 mentions)
 - Keeping access roads or improving road access (10 mentions)

IMPORTANCE OF FACTORS IN IDENTIFYING CONSTRUCTION MATERIALS AND RELOCATION AREAS FOR EXCAVATED SOIL AND ROCK

Total

5. A) How important are each of the following factors in identifying sources of construction materials and relocation areas for excavated soil and rock?

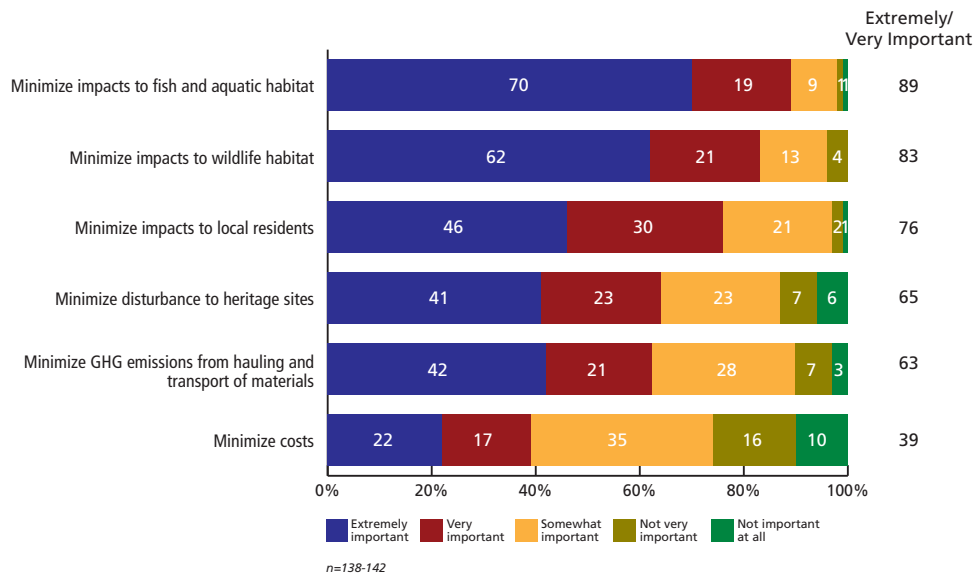


- Participants were asked to evaluate the importance of six factors in identifying sources of construction materials and relocation areas for excavated soil and rock. Most important to participants was **minimizing impacts to fish and aquatic habitat** (84%), followed by **minimizing impacts to wildlife habitat** (79%) and to **local residents** (71%).

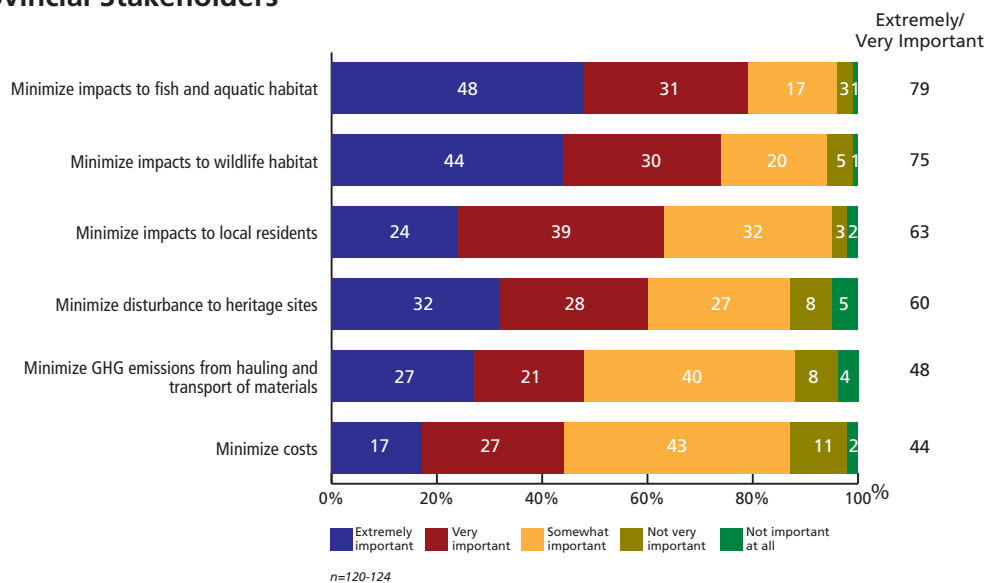
IMPORTANCE OF FACTORS IN IDENTIFYING CONSTRUCTION MATERIALS AND RELOCATION AREAS FOR EXCAVATED SOIL AND ROCK

5. A) How important are each of the following factors in identifying sources of construction materials and relocation areas for excavated soil and rock?

Peace River Stakeholders



Provincial Stakeholders



- Compared to provincial participants, those from the Peace River region were more likely to consider it important to **minimize GHG emissions from hauling and transport of materials** (63% vs. 48%, respectively), and **impacts to local residents** (76% vs. 63%) or to **fish and aquatic habitat** (89% vs. 79%).

ADDITIONAL COMMENTS ON DAM CONSTRUCTION MATERIALS

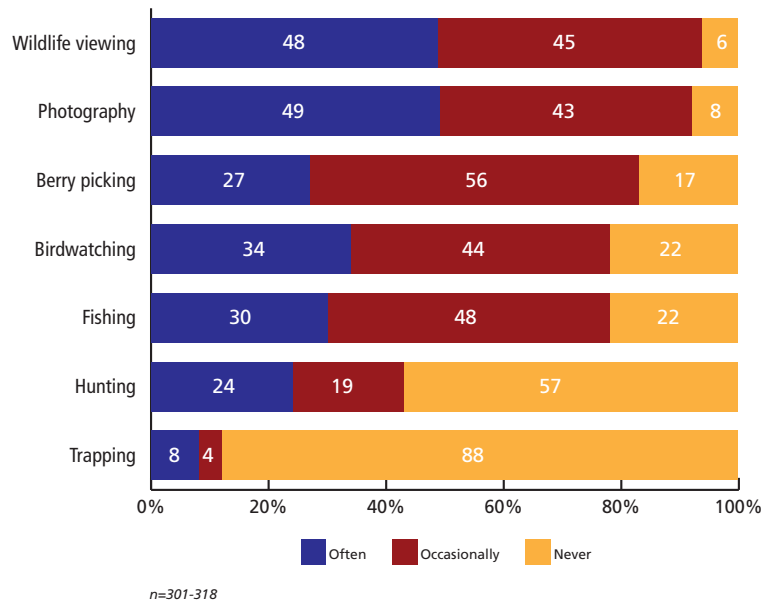
In an open-ended question, participants were given the opportunity to provide additional comments on dam construction materials.

- Among 66 participants who offered additional comments with respect to dam construction materials, 30 stated their outright opposition to the building of Site C. Peace River participants were especially likely to voice their opposition to Site C.

LIKELIHOOD OF PARTICIPATING IN NATURE-RELATED ACTIVITIES

Total

6. A) How often do you participate in the following nature-related activities?

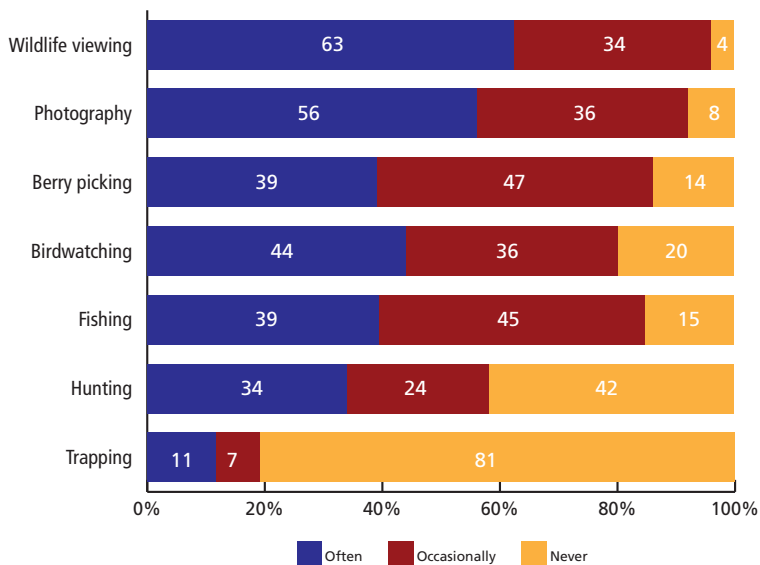


- Of seven nature-related activities listed, a large majority of participants indicated that they engage, at least occasionally, in all activities with the exception of hunting and trapping.
- The most popular activities were **wildlife viewing** (93% “occasionally” or “often” participate in) and **photography** (92%). Many participants also indicated that they participate in **berry picking** (83%), **fishing** (78%) and **birdwatching** (78%).

LIKELIHOOD OF PARTICIPATING IN NATURE-RELATED ACTIVITIES

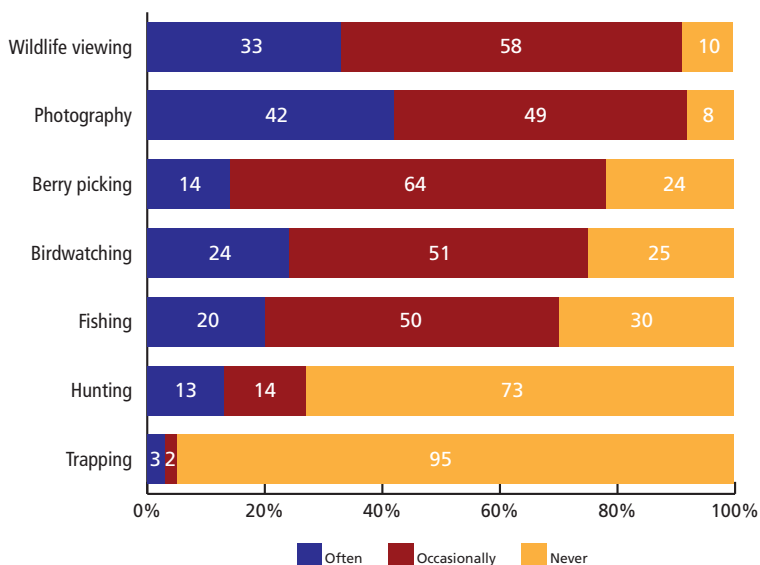
6. A) How often do you participate in the following nature-related activities?

Peace River Stakeholders



n=150-158

Provincial Stakeholders



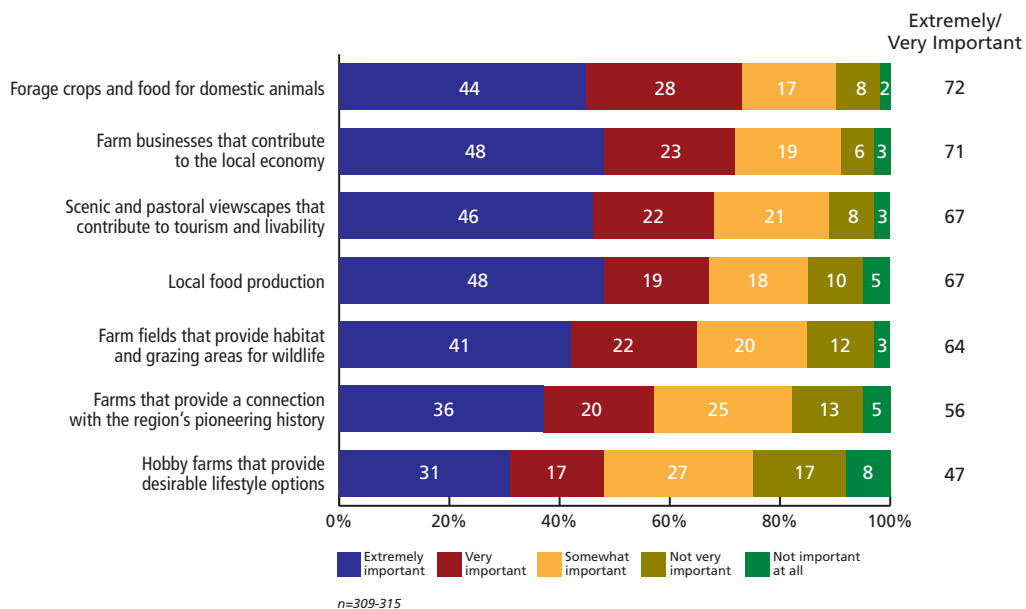
n=126-132

- Participation rates for nature-related activities tend to be somewhat higher among Peace River participants than among those from outside the region, especially for **hunting** (58% vs. 27%, respectively), **fishing** (84% vs. 70%) and **trapping** (18% vs. 5%).

IMPORTANCE OF VALLEY-BASED AGRICULTURE TO THE PEACE RIVER REGION

Total

6. B) How important do you think each of the following aspects of valley-based agriculture are to the Peace River region?

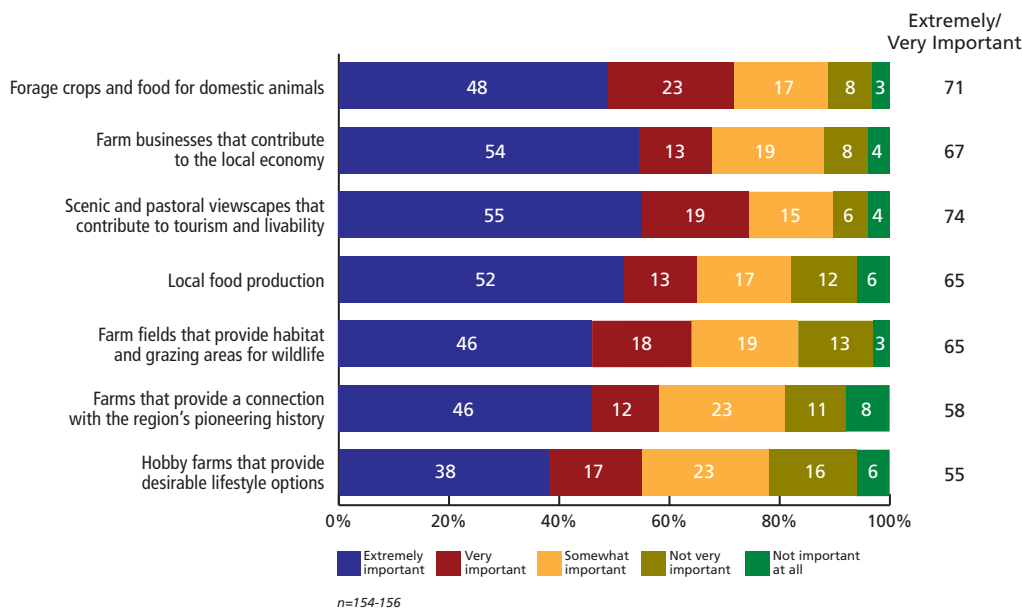


- Overall, the following aspects were rated as “extremely” or “very” important:
 - Forage crops and food for domestic animals (72%)
 - Farm businesses that contribute to the local economy (71%)
 - Scenic and pastoral viewsapes that contribute to tourism and livability (67%)
 - Local food production (67%)

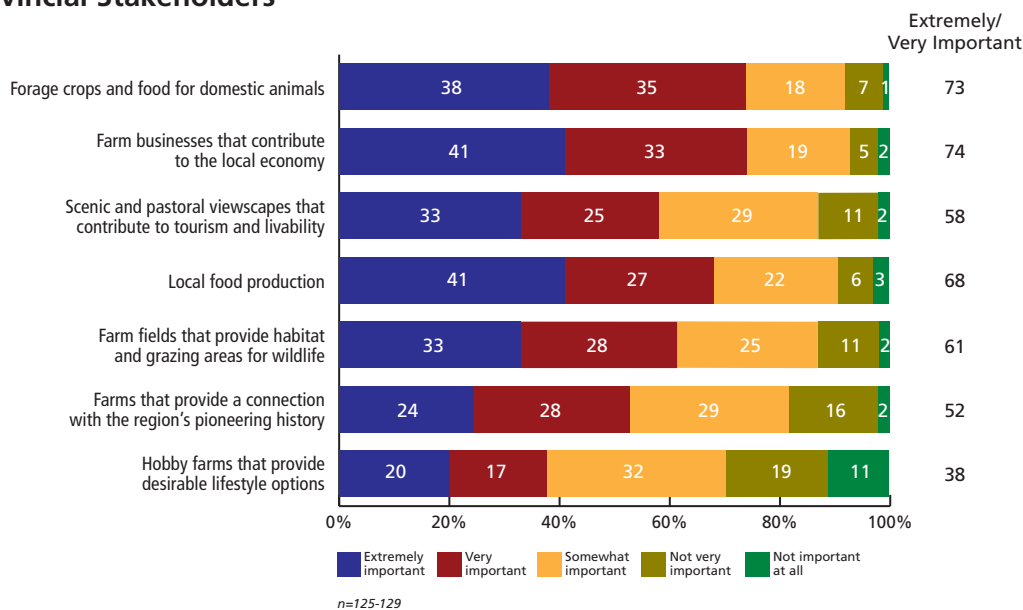
IMPORTANCE OF VALLEY-BASED AGRICULTURE TO THE PEACE RIVER REGION

6. B) How important do you think each of the following aspects of valley-based agriculture are to the Peace River region?

Peace River Stakeholders



Provincial Stakeholders

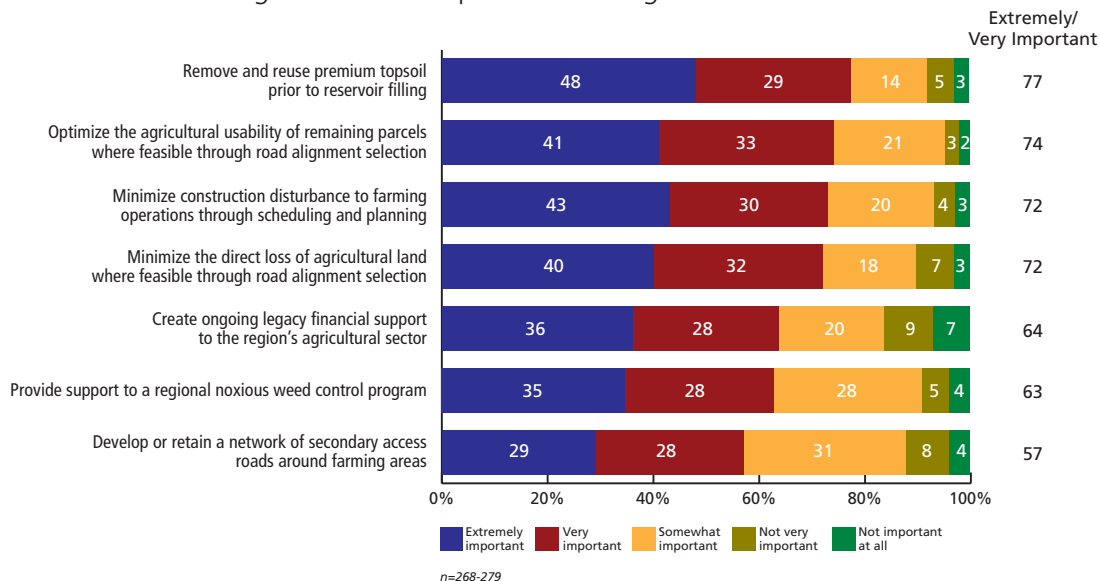


- Peace River region participants attached greater importance than provincial participants to **hobby farms that provide desirable lifestyle options** (55% vs. 38%, respectively) and to **scenic and pastoral views** (74% vs. 58%).

IMPORTANCE OF OPTIONS FOR MITIGATION AND ENHANCEMENT OF AGRICULTURAL DEVELOPMENT

Total

6. C) How important do you think each of the following options are for mitigation and enhancement of agricultural development in the region?

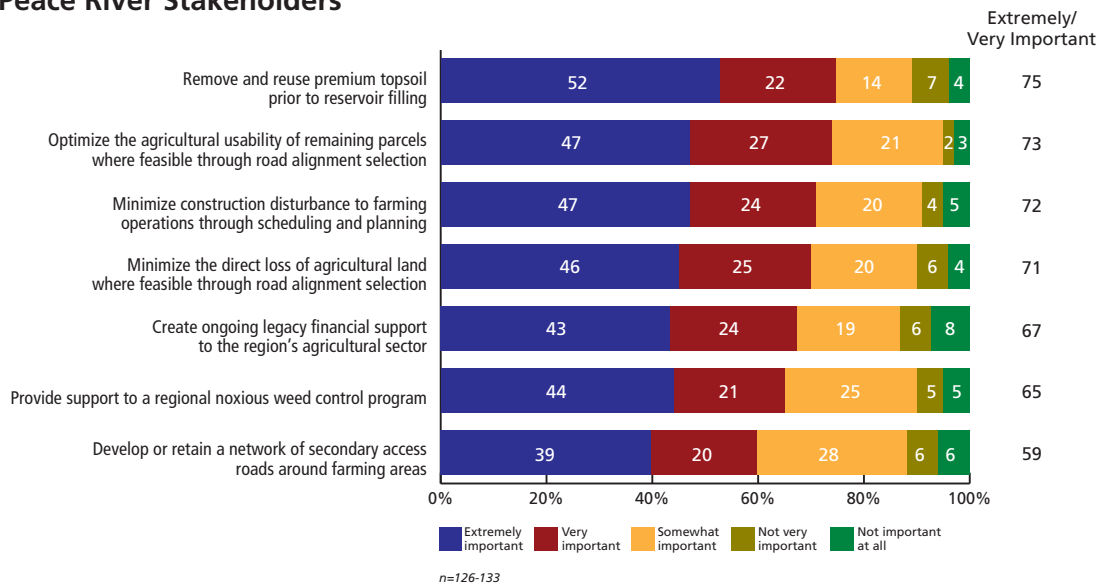


- Overall, four options were rated “extremely” or “very” important by approximately three-quarters of participants:
 - Removing and reusing premium topsoil prior to reservoir filling (77%)
 - Optimizing the agricultural usability of remaining parcels where feasible through road alignment selection (74%)
 - Minimizing construction disturbance to farming operations through scheduling and planning (72%)
 - Minimizing the direct loss of agricultural land where feasible through road alignment selection (72%)

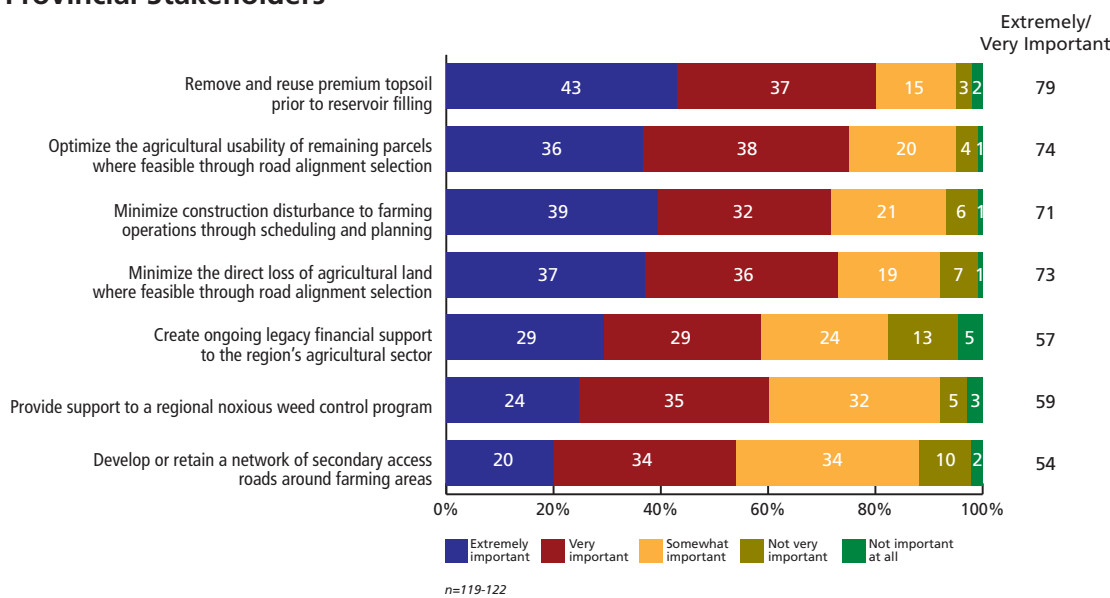
IMPORTANCE OF OPTIONS FOR MITIGATION AND ENHANCEMENT OF AGRICULTURAL DEVELOPMENT

6. C) How important do you think each of the following options are for mitigation and enhancement of agricultural development in the region?

Peace River Stakeholders



Provincial Stakeholders

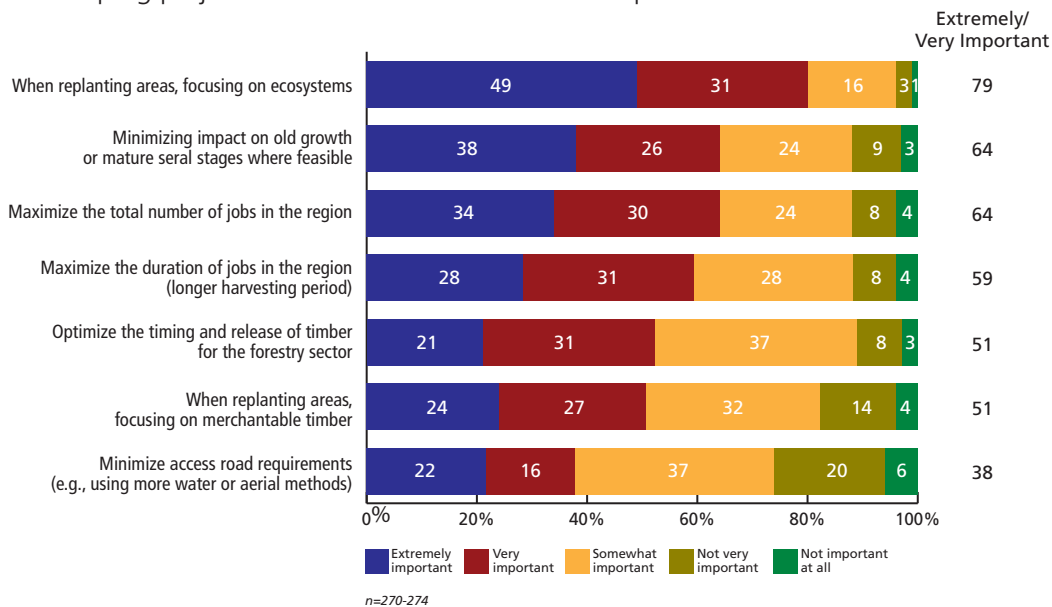


- Peace River and provincial participants generally provided similar importance ratings overall to all seven mitigation and enhancement options.
- Peace River participants were, however, more likely to assign a rating of “extremely” important to **providing support to a regional noxious weed control program** (44% vs. 24% among provincial participants), **developing or retaining a network of secondary access roads around farming areas** (39% vs. 20%), and to **creating ongoing legacy financial support to the region’s agricultural sector** (43% vs. 29%).

IMPORTANCE OF FACTORS IN DEVELOPING PROJECT-RELATED HARVEST AND RECLAMATION PLANS

Total

6. D) How important do you think it is to consider each of the following factors in developing project-related harvest and reclamation plans?

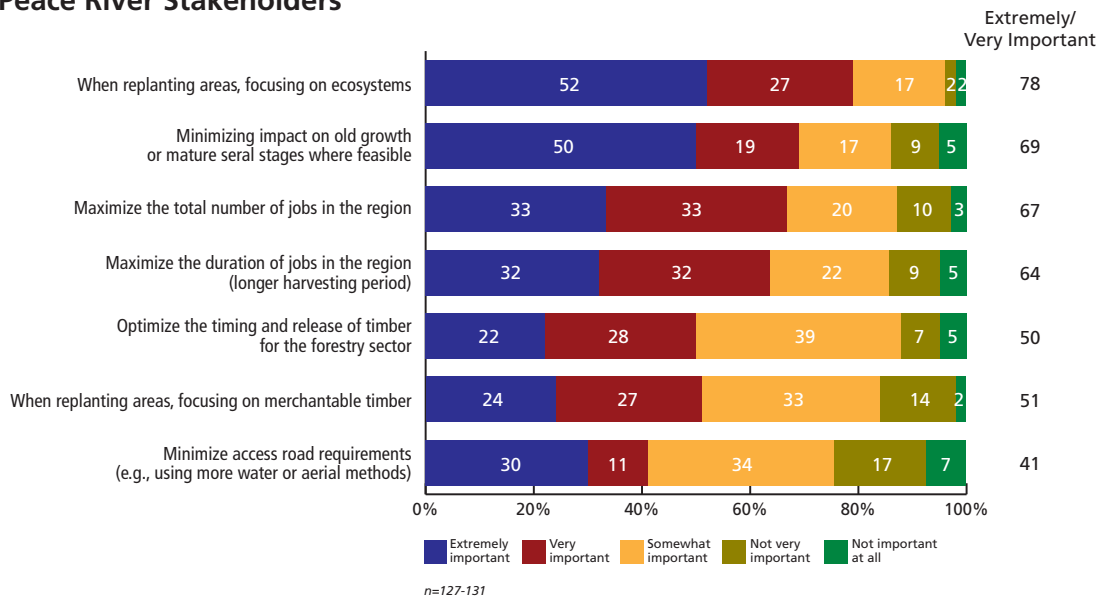


- Overall, **focusing on ecosystems when replanting areas** was rated most important (79% “extremely” or “very” important), followed by **minimizing impact on old growth or mature seral stages where feasible** (64%) and **maximizing the total number of jobs in the region** (64%).

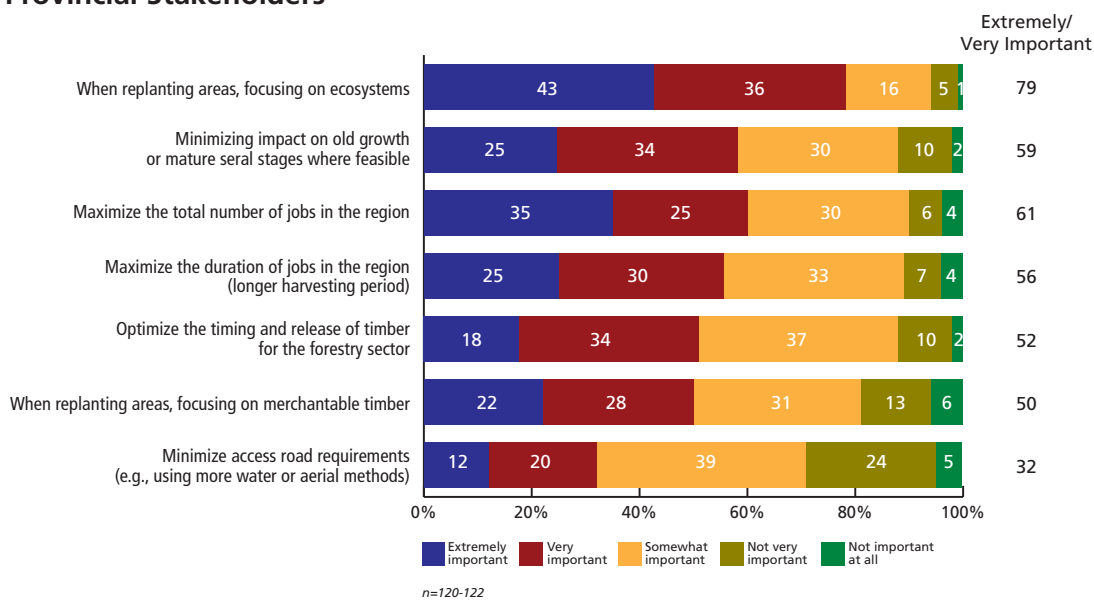
IMPORTANCE OF FACTORS IN DEVELOPING PROJECT-RELATED HARVEST AND RECLAMATION PLANS

6. D) How important do you think it is to consider each of the following factors in developing project-related harvest and reclamation plans?

Peace River Stakeholders



Provincial Stakeholders



- While overall levels of importance on all seven factors tend to be similar among Peace River and provincial participants, those from the Peace River region were much more likely to provide ratings of “extremely” important to **minimizing impact on old growth or mature seral stages** (50% vs. 25%, respectively) and **minimizing access road requirements** (30% vs. 12%).

OTHER MINERAL RESOURCES TO BE CONSIDERED IN ASSESSMENT OF POTENTIAL PROJECT EFFECTS

An open-ended question asked participants to identify other mineral resources that BC Hydro should consider in the assessment of potential project effects.

- Among the 82 participants who provided a response, the most common responses were:
 - Cannot identify any other mineral resources (45 mentions)
 - Gas (10 mentions)
 - Oil (8 mentions)
 - Gold (6 mentions)
 - Undiscovered mineral resources (6 mentions)

FURTHER COMMENTS

Total – Peace River and Provincial Stakeholders

Participants were asked to provide any further comments on any aspect of the potential Site C project. Of a total of 345 feedback forms, 144 participants provided comments.

	Total ²	Peace River Stakeholders	Provincial Stakeholders
Base	144	81	47 ³
	#	#	#
Negative			
Consider alternative technologies/other energy sources (solar/wind/nuclear/geothermal/retrofitting/etc.)	36	22	12
The survey is biased/not objective	23	17	2
Site C will destroy valuable farm land/food production capability	15	11	2
Pursue energy conservation/efficiency/Power Smart	11	5	5
Do not build the dam	9	6	2
Site C will have serious impact on residents/social consequences	8	6	1
Site C will destroy wildlife/habitat	7	5	1
Stop exporting B.C.'s energy	6	2	2
Concerned about the stability of the Peace River banks	5	4	1
Site C will have a negative impact on Peace River Valley's recreational value	5	5	-
BC Hydro does not keep its promises	4	4	-
Site C will have a severe impact on the environment (gen)	4	2	-
Other Negative	16	11	1
No Comments	2	-	2

2. Total is greater than sum of Peace River and provincial stakeholders, as not all participants could be identified by region. A response may include more than one key theme. 3. Caution: small base size.

- Many of the comments negative toward Site C advocate **considering other alternatives** (36) or suggest that **survey materials were biased** (23). Several others relate to the potential negative impacts of Site C, such as **destruction of farm land** (15) or **wildlife habitat** (7), as well as **negative consequences for residents** (8).

	Total ²	Peace River Stakeholders	Provincial Stakeholders
Base	144	81	47 ³
	#	#	#
Positive			
Site C will provide needed power for B.C./B.C.'s future needs	10	2	8
It will provide low-cost power/keep our energy costs low	8	2	6
Site C should be built/built as quickly as possible/it is necessary	7	2	5
Site C will create a lake/other recreational assets	7	5	2
Site C will supply us with clean power	5	2	3
It will create jobs within B.C./economic benefits within B.C.	5	4	1
The plans have been in place for a long time/construction costs are rising	5	1	4
Site C is the lowest impact solution	4	1	3
We should be exporting power/selling the excess	4	2	2
Site C will provide renewable/sustainable power	3	1	2
Other Positive	3	1	2
Neutral			
Need more information about impact/effects of the dam	10	6	2
Affected people need to be offered adequate compensation/relocated	6	3	1
It is important to improve the highways/provide improved access to Chetwynd, Fort St. John	5	2	-
Provide lower/discounted power for those affected by the dam	5	1	3
The reservoir needs to be created properly/the level controlled	4	3	-
Plan for additional turbines for the future	3	2	-
Concerned about private company ownership of power/BC Hydro should be in control	3	-	2
Minimize the effects on wildlife	3	2	1
Remove the flood reserve	3	3	-
Other Neutral	32	18	13

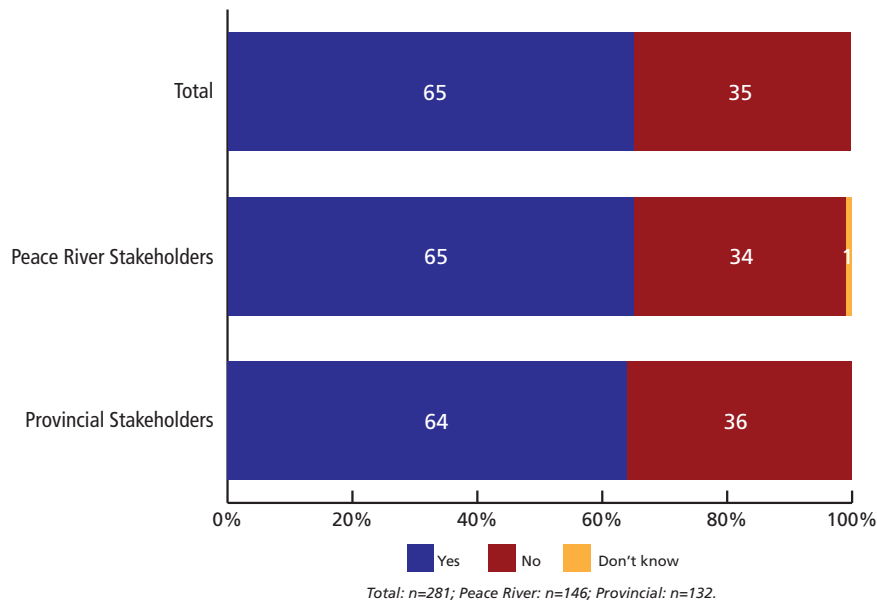
2. Total is greater than sum of Peace River and provincial stakeholders, as not all participants could be identified by region. A response may include more than one key theme. 3. Caution: small base size.

- Of the 144 further comments, those positive toward Site C relate to potential benefits deriving from the dam, including **providing needed power for B.C.** (10), **providing low-cost power** (8) and **creating a lake or other recreational benefits** (7).
- Among neutral comments made, the most common refer to the **need for more information about the effects of Site C** (10).

INTEREST IN RECEIVING UPDATES ON THE PROJECT

Total, Peace River and Provincial Stakeholders

Would you like to receive updates on the project, including the Project Definition Consultation Report?



- 65% of participants expressed interest in receiving updates on the project, including the Project Definition Consultation, Round 2, Summary Report.

4.2 Submissions

In addition to comments on feedback forms, open-ended feedback was also received in the form of 72 submissions, of which 13 were from the Peace River region and 26 from outside the region. The remaining 33 could not be identified by region. It should be noted that a submission may include more than one of the following themes.

Within the 72 submissions received, there were:

- 20 recommendations that BC Hydro consider alternative technologies instead of Site C
- 16 statements that Site C would destroy valuable farm land
- 12 recommendations that Site C be built
- 12 suggestions that Site C will provide needed power for B.C.'s future
- 12 statements that Site C would destroy wildlife habitat
- 12 comments that the multi-stage process to evaluate Site C, including consultation, is not objective
- 11 mentions promoting further energy conservation
- 6 comments that B.C. should be exporting power
- 5 statements that Site C would provide renewable power
- 5 statements that Site C would offer low-cost power
- 5 statements that Site C would create jobs in B.C.
- 5 expressions of concern about private ownership of power in the province

4.3 Key Theme Summary of Stakeholder Meetings

In addition to Synovate's analysis of the feedback form results and written submissions, Kirk & Co. Consulting, a professional consultation firm, analyzed the key themes from 26 stakeholder meetings.

Protests

Between 7-15 people attended stakeholder meetings in Hudson's Hope, Dawson Creek and two stakeholder meetings in Fort St. John to protest against and register their opposition to Site C. Please refer to the stakeholder meeting notes for more information⁴.

The following represents a review of the key themes from each of the stakeholder meetings to determine the most frequently mentioned topics in the meetings. It is important to note that the key theme summary represents a qualitative analysis of stakeholder meeting notes, as opposed to the quantitative analysis of feedback forms noted above. Meetings with Peace River region stakeholders are highlighted below; all others were held with provincial stakeholders.

1. October 2, 2008 – Fort St. John/Taylor Multi-Stakeholder

- Participants said that the consultation process should be conducted by an independent body, not BC Hydro.
- Participants suggested that the consultation take a greater focus on alternatives to Site C, such as geothermal and wind power, rather than project definition.
- Participants asked for more detailed information about environmental and engineering studies, including more detail about the scope and methodology of studies.

2. October 2, 2008 – Fort St. John/Taylor Multi-Stakeholder

- Participants were concerned that the consultation process does not present enough information regarding environmental studies and results.
- Some participants said they thought the Discussion Guide should have been available earlier.
- Participants felt that following Pre-Consultation, BC Hydro should have consulted more on alternatives to Site C rather than proceeding to Project Definition Consultation.
- Participants wanted more information on slope stability around the proposed reservoir and they expressed doubt that the slopes would be stable enough to allow for safe recreation in the area.

3. October 8, 2008 – North Peace Economic Development Commission

- Participants were interested in the energy options BC Hydro is considering under the *Integrated Energy Plan* and the *Long-Term Acquisition Plan* and if BC Hydro is close to meeting the projected demand for the 20-year planning period.
- Participants were interested in potential opportunities for local contractors, particularly regarding reservoir preparation.

4. Complete Stakeholder Meeting notes can be found in Appendix 1 or online at www.bchydro.com/sitec.

- Participants were interested in potential impacts on bees or plants that may be important to the region. Members of the North Peace Economic Development Commission said that 30% of B.C.'s honey production is done in the North Peace region.
- Participants asked how communities will be able to prepare for a decision to proceed with Site C. A suggestion to develop an interagency advisory committee was made.

4. October 6, 2008 – Fort St. John/Taylor Multi-Stakeholder

- Participants were interested in seeing the results of BC Hydro's baseline environmental studies.
- Participants were divided regarding the potential benefits of public access to the powerhouse access bridge.
- Participants expressed continued interest in alternatives to Site C.
- Participants asked BC Hydro to consider free access to power for the Peace River region as a potential legacy benefit.

5. October 6, 2008 – Taylor Local Government

- Participants were interested in opportunities for Taylor related to local labour and worker housing.
- Participants were interested in further discussion with BC Hydro concerning the potential for additional municipal services that may be required to manage an increased population during construction if Site C were to proceed.
- Participants wanted details regarding the safety of Taylor if Site C were built and suffered a breach.

6. October 7, 2008 – Hudson's Hope Local Government

- Participants expressed concern that BC Hydro's new rate structure may penalize those who have moved from gas and diesel to cleaner electricity.
- While conceding the potential benefit to other areas in the Peace River region (Chetwynd), participants were concerned that public access to the powerhouse access bridge may negatively impact Hudson's Hope.
- Participants requested updated information regarding slope stability at Hudson's Hope should Site C proceed.

7. October 7, 2008 – Hudson's Hope Multi-Stakeholder

- Participants questioned why BC Hydro is considering Site C rather than other energy alternatives.
- While some participants felt that BC Hydro's efforts managing sloughing at the Williston Reservoir were laudable, they remained concerned with the issue of sloughing in the potential Site C reservoir.
- Participants were generally opposed to Site C, preferring that BC Hydro consider other options to meet the province's growing demand.

8. October 7, 2008 – Hudson’s Hope Multi-Stakeholder

- Participants suggested that BC Hydro spend the same amount investigating energy alternatives, such as geothermal, as they are spending on Site C.
- Participants were generally opposed to retaining Site C as an energy option.
- Participants were interested in how much land, of that required to build Site C, is owned by BC Hydro.

9. October 8, 2008 – Dawson Creek/Pouce Coupe Local Government

- Participants were interested in preferential rates or a reduction in rates to reflect shorter transmission distances.
- Participants suggested that the Fraser Basin Council model, or a similar model, be considered to manage watershed issues and infrastructure improvements over time, particularly if Site C were to proceed.
- Participants asked if regional colleges could establish education programs to increase the capacity of local people to be involved in working on aspects of Site C development.

10. October 8, 2008 – Dawson Creek/Pouce Coupe Multi-Stakeholder

- Participants expressed a desire for BC Hydro to look more closely at other energy options before considering Site C, suggesting greater incentives for conservation and “distributed” generation.
- Participants requested additional information regarding environmental studies, clarification about the need and timing of baseline studies and when impact or effects studies would be completed.
- Participants wanted BC Hydro to ensure that any public access to the Hudson’s Hope road would create a viable, safe, alternate route to Fort St. John.
- Participants expressed a strong desire to preserve agricultural land in the Peace River region, particularly the valley bottom land that would be flooded by Site C.
- Participants were generally opposed to Site C.

11. October 14, 2008 – Fort St. John Local Government

- Participants expressed interest in the ongoing consultation program, thanking BC Hydro for keeping the City of Fort St. John involved at several levels – stakeholder meetings, Technical Advisory Committees and individual meetings with senior staff.
- Participants generally supported exploring the possibility of providing public access to the powerhouse access bridge. They acknowledged that additional consultations with the Ministry of Transportation and Infrastructure, as well as with other municipalities and regional governments and BC Hydro, would be required.
- Participants were interested in more information regarding potential impacts to the forestry and oil and gas sectors.

12. October 15, 2008 – Independent Power Producers of BC

- Participants expressed an interest in the potential environmental impacts of the project and BC Hydro's progress regarding engineering and design to mitigate potential impacts.
- Participants expressed an interest in potential opportunities for private sector engineering firms to work on the project, if it proceeds.
- Participants were interested in key features of the dam and the reservoir, asking questions about reservoir fluctuation and river flows.

13. October 15, 2008 – Lower Mainland Multi-Stakeholder

- Participants encouraged BC Hydro to pursue options other than Site C including conservation, net metering, wind, tidal and other renewable electricity options.
- Participants were interested in keeping the proposed reservoir as flat as possible, citing benefits to recreation and noting that the upstream dams could minimize the need for greater fluctuation on Site C.
- Participants questioned whether B.C. needs the additional power Site C would produce. They expressed concern that the energy generated from Site C would be exported rather than used domestically.
- Participants recommended that BC Hydro do a full cost-benefit analysis of the proposed Site C. An ecosystem, natural capital services study was suggested to give stakeholders more information with which to make decisions about Site C.
- Some participants suggested that Site C would have less impact than many smaller independent power projects and that Site C would create opportunities to train and employ local workers.

14. October 16, 2008 – Lower Mainland Business Groups

- Participants felt the level of participation in Round 1 was relatively limited and expressed concern that decisions were being made based on too small a sample size.
- Participants expressed interest regarding the extent to which BC Hydro may learn from other projects to reduce costs.
- Participants were interested in the procurement strategy for Site C.
- Participants were interested in the efforts being taken to mitigate potential local impacts, especially environmental impacts.

15. October 20, 2008 – Mackenzie Local Government

- Participants emphasized the importance of consulting with First Nations and long-time residents to gain intrinsic local knowledge, particularly in regards to the environment and wildlife in the Peace River region.
- Participants expressed concern regarding the sloughing of the banks and how this could affect access to recreation areas.
- Participants commented that given the current issues facing residents of the District of Mackenzie, the potential Site C Project is not a main concern.

16. October 20, 2008 – Mackenzie Multi-Stakeholder

- Participants were concerned with shoreline erosion, suggesting ways to protect the shoreline, including using non-merchantable trees.
- Participants were interested in reservoir preparation, emphasizing the importance of clearing trees to avoid a similar situation to the Williston Reservoir.
- The Chamber of Commerce expressed support for the Site C project, provided BC Hydro develops innovative approaches to utilize non-merchantable timber.
- Participants suggested that the access roads on the south side be maintained to provide displaced farmers and ranchers access to agricultural lands.

17. October 21, 2008 – Prince George Local Government

- Participants expressed support for Site C.
- Participants were interested in the environmental aspects of the project, commenting specifically on whether there was an opportunity to pre-dredge the gravel prior to flooding and the use of affected agricultural land.
- While participants were interested in the project's potential for sustainable job creation, they expressed concern regarding how to manage the influx of workers during the peak periods of construction.
- Participants suggested that the access roads between Fort St. John and Chetwynd may be an unnecessary expense, unless they are required for resource purposes.

18. October 21, 2008 – Prince George Multi-Stakeholder

- Participants were concerned with potential environmental impacts such as climate change (fog), mercury contamination and sloughing.
- Support for Site C was expressed, citing financial and employment benefits, recreational opportunities and the availability of cheaper, reliable power for the province.
- Participants wanted to know why Site C is being considered over other options, requesting additional information about energy alternatives.
- Participants expressed concern regarding employment opportunities for the construction of Site C.

19. October 22, 2008 – Peace River Regional District

- Participants were interested in energy alternatives such as wind and geothermal.
- Participants discussed issues regarding improvements to construction roads to manage increased traffic and public use of the access bridge.
- Participants discussed several legacy benefits, including improved communication transmission (broadband Internet and cellular phone service) and utilizing materials not used in dam construction.

- Participants commented that they would like to have First Nations join the community consultation with all other stakeholders.
- Some participants were concerned that the flooding needed to build Site C would have a negative impact on agriculture in the region.

20. October 24, 2008 – Joint Integrated Electricity Steering Committee

- Participants expressed support for Site C.
- Participants discussed localized issues including public use of the powerhouse access bridge and environmental impacts.
- Participants asked that cost estimates including rate inputs be produced as part of Stage 2.
- Participants said they would like to see certainty regarding a decision to proceed with Site C.
- Participants supported the idea of generating revenue for the province consistent with the self-sufficiency policy noted in the *BC Energy Plan*.

21. October 27, 2008 – Chetwynd Local Government

- On behalf of the District of Chetwynd, participants supported public access to the construction roads and powerhouse access bridge, provided there is a highway connection between Chetwynd and Fort St. John. Participants commented further that the highway should be part of the Site C project scope.
- Participants were interested in alternative energy sources such as wind and tidal.
- Participants commented that the reservoir should be adequately cleared.
- Participants were interested in whether the environmental studies done for Williston would help with the studies for Site C.
- Participants asked what would stop Site C from being built.

22. October 27, 2008 – Chetwynd/Tumbler Ridge Multi-Stakeholder

- Participants commented that the construction costs for wind projects (Dokie Wind Farm) are less than the construction costs for Site C.
- Participants suggested that alternative energy options be considered to meet B.C.'s energy needs.
- Participants suggested that the Jackfish Lake Road be pushed through to Site C so that workers from Chetwynd could commute to the dam site.
- Participants requested information on how stakeholders/communities were notified about Round 2 Consultation.

23. October 27, 2008 – Tumbler Ridge Local Government

- Participants were interested in participating in the clean call for biomass energy using beetle-killed wood from the Tumbler Ridge area.
- Participants noted that major, long-lasting legacy benefits arising from the Site C project are needed in the Peace River region.
- Participants were interested in who would maintain the access roads if these were open to the public after dam construction was completed.

24. October 29, 2008 – Nanaimo Multi-Stakeholder

- A number of participants stated strong support for the development of Site C, with the proviso that the issues discussed are addressed and dealt with fairly.
- Some participants linked Site C to broader goals concerning greenhouse gas emission reductions.
- Participants asked about environmental impacts, such as impacts on arable agricultural land, wetlands and the process of reservoir preparation. It was suggested that BC Hydro work with Ducks Unlimited on mitigation.
- Participants asked about consultation outside of the project definition stage, such as with First Nations and the Province of Alberta. It was suggested that the location of First Nation communities be labelled on the maps in the discussion guide.

25. November 4, 2008 – Fort Nelson Multi-Stakeholder

- Participants were interested in how energy costs in the table on page 8 of the Round 2 Discussion Guide and Feedback Form were calculated.
- Participants expressed interest in a reservoir-clearing program that would reduce boating accidents.
- Participants would like to know what the concerns of Fort St. John residents are regarding the proposed Site C project.

26. November 4, 2008 – Fort Nelson Local Government

- Participants commented that the Site C project should have been built in the 1980s.
- Participants suggested that industry would demand use of the powerhouse access bridge.
- Participants questioned what other large hydro projects might be considered in 20 to 50 years.

4.4 Key Theme Summary of Comments from Open House Question and Answer Sessions

Project Definition Consultation, Round 2 included seven public open houses, which provided opportunities for the public to engage with the Site C project team on a one-on-one or small group basis. In addition, six open houses included one-hour moderated question and answer sessions. The Fort Nelson open house did not have a question and answer session due to low attendance and the ability of the project team to answer individuals' questions on a one-on-one basis.

Protests

Approximately 10-25 people attended the Dawson Creek/Pouce Coupe and Fort St. John open houses to protest against and register their opposition to Site C. Please refer to the open house question and answer session meeting notes for more information⁵.

The following represents a review of the key themes from the six moderated open house question and answer sessions to determine the most frequently mentioned topics in the meetings. As with the stakeholder meeting notes, it is important to note that this key theme summary represents a qualitative analysis of question and answer session meeting notes, as opposed to the quantitative analysis of feedback forms noted above.

1. November 3, 2008 – Prince George

- Participants were interested in issues such as capacity and energy alternatives, as well as whether there would be an impact on archaeological sites.
- Participants expressed an interest in knowing why a third dam on the Peace River made sense.
- Participants expressed an interest in greenhouse gas and other emissions.

2. November 5, 2008 – Vancouver

- Participants were interested in alternative energy options.
- Participants asked about the decision-making process, with one participant suggesting that the decision to proceed to Stage 3 should be made by the legislature rather than cabinet.
- The Canadian Federation of Independent Businesses expressed support for renewable energy options and Site C.

3. November 17, 2008 – Taylor

- Participants questioned whether Site C is needed, given that BC Hydro was a net exporter of energy in 2008.
- Participants suggested that BC Hydro improve the efficiency of its existing power generation facilities and explore other alternatives before considering Site C.
- Participants suggested that BC Hydro's name should be changed to BC Energy to reflect a mandate to produce energy from many sources, not just hydroelectric.

5. Complete Open House Question and Answer Session meeting notes can be found in Appendix 2 or online at www.bchydro.com/sitec.

4. November 18, 2008 – Dawson Creek/Pouce Coupe

- Participants said they would like BC Hydro to invest in and develop alternatives such as wind, solar and other energy sources instead of Site C.
- Participants expressed concern that proceeding with Site C would eliminate agricultural land forever.
- Participants asked whether Site C is necessary, given current and projected demand, which they said could be dealt with through conservation and other alternatives to Site C.

5. November 19, 2008 – Hudson's Hope

- Participants commented that the Site C consultation events are more like information sessions rather than true consultation.
- Participants suggested that BC Hydro should be talking to the residents of Hudson's Hope to gain local knowledge about environmental issues, including animal species found in the area and socio-economic related issues.
- Participants were generally opposed to Site C.

6. November 24, 2008 – Fort St. John

- Participants felt that in addition to conservation, BC Hydro should be promoting and developing "green" technologies.
- Participants were generally opposed to the construction of Site C.
- Participants commented that the impacts from Site C would affect those who live in the Peace River region while the benefits would be for the Lower Mainland.
- Participants were concerned that recreation opportunities would not be available if Site C was built due to debris and instability of the banks.





BC HYDRO
PEACE RIVER SITE C HYDRO PROJECT

PROJECT DEFINITION CONSULTATION
ROUND 2 SUMMARY REPORT

APPENDIX 1 – STAKEHOLDER MEETING NOTES

FEBRUARY 9, 2009

Prepared by:
Kirk & Co. Consulting Ltd.
and
Synovate Ltd.



About Kirk & Co. Consulting Ltd.

Kirk & Co. Consulting Ltd. is recognized as an industry leader in designing and implementing comprehensive public and stakeholder consultation programs. Utilizing best practices in consultation, the firm designs consultation programs to maximize opportunities for input. Kirk & Co. works with polling firms to independently analyze and report on large volumes of public and stakeholder input.



About Synovate Ltd.

Synovate Ltd. is an internationally recognized market research firm. All consultation input received by feedback form and written submission was independently verified and analyzed by Synovate.

Participants self-selected into consultation rather than being selected randomly. Consultation feedback is not comparable to an opinion poll because respondents do not constitute a random sample.

The views represented in this report reflect the priorities and concerns of consultation participants. They may not be representative of the views of British Columbians and other stakeholders because participants self-selected into Round 2 Consultation. Although results are presented in the form of percentages, there are no margins of error for this data because there is no probability sample. The sample in question is based on self-selection, for which a sampling error cannot be measured.

Cover image: *A back channel on the Peace River approximately one mile east of the potential Site C dam site location.*

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

FORT ST. JOHN MULTI-STAKEHOLDER MEETING

October 2, 2008

Notes from a multi-stakeholder meeting held with representatives of the Site C Project Team and the Fort St. John community on October 2, 2008 at the North Peace Cultural Centre, Room #1, 10015 100th Avenue, Fort St. John, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Kate O'Neil, BC Hydro
Randy Reimann, BC Hydro
Andrew Watson, BC Hydro
Jack Weisgerber, BC Hydro (arrived at 3:30 p.m.)
Susan Campbell, Kirk & Co. Consulting Ltd., Recorder

STAKEHOLDERS: Andy Ackerman
Sylvester Apsassin
Ken Boon
Brian Carmichael
Diane Culling
Toby Elliott
Cory Goodwin
Moir Green
Laurel Hadland
Randal Hadland
Johanna Henderson
Tessa Holloway
Russ Kalb
Brennan Leidal
Jim Little
Karla Marsh
Dave Menzies
Kathy Miller
Ken Miller
Tim Mosley
Sara Parsons
S. Plotnikew
Grant Powell
Lynn Powell

Olive Powell
Bruce Reid
Al Ritchie
Steve Roe
Gordon Westergart
Daniel B. Peoman
Axel Zalbock

The meeting was called to order at 2:00 p.m. The record notes that there were two protests that interrupted the meeting for approximately 3-minutes each time and there were approximately 12-15 protestors.

KEY THEMES:

- Participants said that the consultation process should be conducted by an independent body, not BC Hydro.
 - Participants suggested that the consultation take a greater focus on alternatives to Site C, such as geothermal and wind power, rather than project definition.
 - Participants asked for more detailed information about environmental and engineering studies, including more detail about the scope and methodology of studies.
-

1. Welcome and Introduction of the BC Hydro Project Team

Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator further advised that while the notes are not verbatim they are detailed notes and that speaker attributions will be shown. These notes will form part of the consultation record and will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record notes that while every attempt has been made to secure the correct spelling of participant names we do apologize in advance for any misspellings.

The Facilitator noted that the Discussion Guide and Feedback Form are available on line at www.bchydro.com/sitec

3. DISCUSSION GUIDE

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used in the meeting notes and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes; Environment Assessment; British Columbia Utilities Commission - Dave Conway

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power – Dave Conway

Q: *Corey Goodman:* You said a call out, what is that?

A: *Dave Conway:* A call out is a competitive bid for the energy - a legal process; a call for competitive bids to get the energy at the best price BC Hydro can get it.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options – Dave Conway

Q: *Dave Menzies:* How long would the operating life of the dam be?

A: *Dave Conway:* The operating life, from the perspective of the financing aspect, the capital it would be over 100-years but once the facility is there it is there for good. You would need to refurbish the facilities as we are doing with WAC Bennett now.

C: *Andrew Watson:* Just a correction - the financial assumption for the proposed Site C is 70-years but as mentioned once you put it in it is indefinitely there. Any money you spend after 70-years is after the facility has been paid off.

Q: *Dave Menzies:* I heard 40-years because of the siltation? I thought it was 40-years on the old Site C because of the siltation – is that an issue? What impact does siltation have?

A: *Andrew Watson:* 70-years is purely a financial assumption - Site C is not affected by siltation because it is not used for water storage and don't affect the viability of the plant to generate energy and previous estimates for Site C to fill in to a substantial amount from siltation would be in the range of 700-years. It just needs the head (the volume)

Q: *Ken Boon:* So how about the siltation on the Williston Reservoir? They used to say 40-years what do they say now?

- A: *Andrew Watson:* The Williston Reservoir would be far in excess of thousands of years and there are some regional estimates that I could get back to you on.
- Q: *Steve Roe:* With respect to the field studies – will the full content be made available to the public?
- A: *Siobhan Jackson:* We have said at previous meetings that at the end of Stage 2 those completed studies will be released however some of the multi-year studies reports won't be available as they won't be final reports.
- Q: *Brian Churchill:* With respect to the multi-stage studies, will they be released when each stage is done? We know that studies are the creation of a Terms of Reference and will the Terms of Reference be made available for the studies that are on-going?
- A: *Siobhan Jackson:* Study outlines are available and include things like: what we are doing, where we are doing it, the timing for the study, study objectives and what is anticipated. As new studies are developed new outlines will be developed. There should be package of them at this meeting.
- Q: *Brian Churchill:* So you are equating the Terms of Reference to a study outline?
- A: *Siobhan Jackson:* The phrase, Terms of Reference, gets used for many things and we have found it confusing and we don't want to mix it up with the regulatory authority terminology so we are using the term study outlines, two to three pages, which sets out the objectives, methods and scope.
- Q: *Brian Churchill:* So the actual Terms of Reference will not be available until Stage 3?
- A: *Siobhan Jackson:* Because we are not in regulatory process there is no complete terms of reference developed until we get to Stage 3 and that would be done with the regulators as part of the environmental assessment process.
- Q: *Andy Ackerman:* On a point of process, if you have a number of studies that are not completed, by the end of Stage 2, how do you go to the decision-makers and ask them to decide to go to Stage 3? I am concerned because to go to Stage 3 is a fairly serious step and that means that somebody has made the decision to go and then we are into the regulatory review process so the decision is made to go to Stage 3 and if you aren't making an informed decision and if all the studies aren't done then it would be premature to go to Stage 3 because the people that make that decision aren't sitting in this room and I would hope that the politicians would make their decision on complete information and that would concern me in the process if they didn't have complete information. I

know that SERA¹ and the BC Environmental Assessment Authority process look at studies that have been done and look at what things have been completed, not half done studies and to me they are going to demand full information and I would really encourage that all the studies be done before a recommendation to government is made.

A: *Siobhan Jackson:* On Page 22 (Discussion Guide) we talk about the work in Stage 2 and the focus is on inventory or baseline studies and understanding the existing environment and this is typically done before an environment assessment or within an environmental assessment. So the effects assessments would be done under the environmental assessment agencies if the project was to proceed to that stage. The type of studies that are multi-year studies may move beyond that time frame, for example, the creel studies; the plan was for a 24-month study, initiated this year, so available data will be reported out on when it is ready or as an interim result.

Q: *Andy Ackerman:* I raised this concern at the first stage and for example the movement of Bull Trout at the Halfway Creek and we had the largest known migration from a Bull Trout from Halfway River system to Slave Lake and I asked how you will deal that and that species is red-listed and they will be severely impacted by this dam. I think if I was a decision-maker that I would want to know that this was satisfied before I went to Stage 3. My experience is that those doing the environmental assessment process would prefer to have the studies done before going into the process. They have set guides for timelines and if you don't have studies done then the timelines are screwed.

Q: *Brian Churchill:* I don't think I got a clear answer regarding the release of draft reports and I am as concerned as Mr. Ackerman and directly related to Mr. Ackerman's response. BC Hydro wrote to me in August, dated August 13th, and said that they weren't aware of Bull Trout studies and we can't provide you with information if we don't know what you are doing. Is the baseline information going to be available or do we have to wait 5-years to find out?

A: *Siobhan Jackson:* Reports that are finalized will be made available by the end of Stage 2.

Q: *Brian Churchill:* The question was will you release the information from the multi-year study reports?

A: *Facilitator:* When the reports are finalized they are public and not before.

C: *Brian Churchill:* So only final reports will be released.

A: *Siobhan Jackson:* Yes.

¹ Federal Environmental Assessment Agency

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C – Dave Conway

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics – Dave Conway

There were no comments received.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Randy Reimann

Resource Planning and Energy Planning:

- Our area in energy planning is to look 20-years out there and to try and understand what future resource needs may be out there and then look at the capability of existing resources to meet that need and then we look at options to fill it in.
- Within our group we have an analyst to compare the various resource options and look at costs, environmental impacts and risks of delivery and then we make a recommendation and file a long term acquisition plan (LTAP).
- Our long term acquisition plan is a regulatory document and is filed with the BCUC² and currently we are in that process right now with the LTAP 2008. As part of that document we list out the resource options that are available to meet the future customers' needs.

Page 8 – Resource Options Comparison – Randy Reimann

Page 9 – BC Resource Options Comparison

- In the process of LTAP we create a resource options report
- We go out to stakeholders, First Nations, environmentalists and customer groups and invite them in to scope out a study and look at the available options and try to make sure we have a full some list of resource options
- We did that process in 2005
- In the current plan we updated certain technologies and presented some that are more commercially available
- What we do when we identify resource to not identify every resource options that is going to be available ever but rather we try to identify a sufficient number to meet the needs for next 20-years that are commercially available and cost effective and then we look at trade-offs
- Look at the table and notice the colors – dark blue is wave/tidal and that is under development and not commercially available. To be commercially available we must have 3-facilities that have been put into production in the world that have been put into production and are serving a utility.

² British Columbia Utilities Commission

- Some things have been identified which aren't cost-effective but the government has directed us to consider cost-effective technologies
- One of the first things we look at is conservation – this is benign in terms of impacts to the environment and there is a lot of cost-effective DSM³ out there and it is not without delivery risk but we need a lot of people in BC to participate to get that conservation to be delivered
- Supply side options: look at thermal – can turn on in cold snaps and they generate and on the other side is renewals and they tend to be intermittent
- Wind can be quite good as a resource but needs a backup resource
- Thermals have green house gas emissions and there is concern about climate change and the government is committed to reducing green house gas emissions by 33% by 2020 so trying to restrict the use of thermal fuels and they have asked BC Hydro to ensure that our future resources are 90% clean

DISCUSSION:

Q: *Randy Hadland:* Why is there a range of cost for conservation?

A: *Randy Reimann:* We had a \$35-\$50 range depending on how much conservation you went for and what we have identified in this conservation number is the amount of savings we think that we could get between now and 2020 and that ended up being priced out at \$42. If you chose different amounts that would change.

Q: *Dave Menzies:* Where does nuclear fit in?

A: *Randy Reimann:* The government, in the 2002 energy plan and renewed in 2007, said they did not consider that as an option at this point.

Q: *Diane Culling:* In light of the fact that Alberta is looking at nuclear and Saskatchewan is more than happy to supply the fuel what impact will that have on BC Hydro and the selling of power to the grid? If Alberta makes a move to go there and the BC market has excess power doesn't that change if Alberta has a lot of power?

A: *Randy Reimann:* The BC Government's 2007 Energy Plan has asked for us to move to self-sufficiency so what Alberta does would not have an impact on BC and what we would build and operate in BC.

Q: *Steve Roe:* What looking at the options is BC Hydro pre-disposed to favor hydro?

A: *Randy Reimann:* I don't think so, no, we have a base resource plan that identifies actions we want to pursue over the next 10-years and it identifies demand side management and the (energy) calls so we have an open call that is going to be run and we are expecting bids this fall. Anyone that has a commercial facility that can sell energy to BC Hydro and are cost-

³ Demand Side Management

competitive we will look at. There will be a mix of energy – run of river, wind, garbage incinerators and I don't think that there are any large hydro projects that we are anticipating at this time.

- Q: *Steve Roe:* Follow-up question, in the consideration of an options list like this and in the interests of neutrality and objectivity of the process if an options assessment were mediated by a third party?
- A: *Randy Reimann:* That resource options report that I referred to we did it in open forum, they could put the options on the table that they wanted looked at and we went through an open assessment, reviewed the results and a filed a report with the British Columbia Utilities Commission and then the interveners' and the filers have an option to review and critique it so I would say that is an independent tribunal that reviews the options.
- Q: *Steve Roe:* I am wondering about this process and an independent review by an independent third party and to what extent could they contribute to the neutrality and objectivity here?
- A: *Dave Conway:* That options assessment is not part of this process, at this point, you are looking at a different model. We are working in a regulated environment with the British Columbia Utilities Commission and that process is set out for us and has an opportunity for cross-examination and interveners and BCUC directs us to make changes as they see fit as a regulator for us as an agency.
- Q: *Steve Roe:* Who defined the public consultation process that we are in now? We have moved from Stage 1 pre-consultation to Stage 2 project justification. Who is responsible for that because it doesn't seem to me that there is a necessary mandated sequence there?
- A: *Dave Conway:* The direction was provided by the provincial government, from the energy plan, and that is where we get our direction from and how to proceed.
- Q: *Steve Roe:* Was it BC Hydro that designed the consultation process?
- A: *Dave Conway:* A five stage approach and the direction came from government and that direction was reviewed by the British Columbia Utilities Commission.
- C: *Steve Roe:* I submit that a stage is missing, that we shouldn't have moved from pre-consultation to project justification. There should have been a sustained options assessment stage, mediated by an independent party, and then project justification should talk place about a year from now.
- Q: *Axel Zalbock:* Why is the present government rejecting nuclear power? In Europe there are very modern nuclear power stations in, for example, France and England and over the next years they are probably going to build a dozen more. It (nuclear) is clean power and I know that there is a waste problem but even so why is it not on the list? It is still essential power.
- A: *Randy Reimann:* There is a potential safety issue however we know that there are many plants that have operated safety but the biggest issue is

what to do with the waste and where do you put it. There has been a proposal to dispose of the waste deep into Yucca Mountain but can't get approval and it is millions of years before the radioactive material won't pose a problem. The BC Government looked at the options and thought there were enough options on the table and didn't want to tackle that particular fuel.

- Q: *Axel Zalbock:* So instead you are building a dam and flooding a beautiful valley. We are only 1.4 million people here. If you look at the same land mass as Britain, Germany, Holland and Belgium and there is a huge difference so how do 230-million people generate power? We know there are high tech coal generating plants and we have the coal in Tumbler Ridge so why is that not on the table? Why can't we do it? We can do the same thing. I know that total emissions in Canada are not doing very well and that in Europe they are doing better. I believe we should not touch the Valley. I think we should have a diversity of coal, nuclear power stations and windmills.
- A: *Randy Reimann:* With respect to coal there is super critical clean coal but they have a significant amount of green house gas emissions and this is a significant concern for the whole world and the government is saying we have to reduce green house gas emissions. The government has said that when coal is commercially available and all the carbon emissions are captured and the carbon dioxide is dealt with.
- C: *Axel Zalbock:* With today's technology and we clean up our act in 10-years coal will be 100% clean. Right now we have a certain amount of emissions with coal but the forecast is that in 10-years it will be completely clean. Improved technology may well make coal clean in 10-years.
- C: *Lynn Powell:* There is a coal plant in Edmonton and there is a complete haze around the plant and it is just dirty, really dirty.
- C: *Grant Powell:* And look at all the health concerns around the coal plant.
- Q: *Moira Green:* With respect to the demand side management – are you also looking at the training of consumers; for example, for instance with solar and wind the sun doesn't always shine and the wind doesn't always blow and for instance with the laundry I can turn my washer on at 5:00 a.m. with the use of a timer and I would be very willing to do this so that we not have to have the dam. Is that part of demand side management and a plan to teach consumers when to use their appliances?
- A: *Randy Reimann:* We are looking at that and moving in that direction we are in the process of investigating smart meters that we would put in to allow you to put a panel in the house to prevent unnecessary use of power and also allow you to use appliances in off peak periods.

C: *Moirra Green:* Solar energy technology exists but it is too expensive. Is BC Hydro in a position to provide research and development money for companies to develop this and produce the kind of equipment that I want install and build on my home at a reasonable cost?

At this point the Facilitator moved to the next speaker.

C: *Andy Ackerman:* Just a suggestion, because it has been raised about nuclear power, and there are a huge number of plants in Canada and Europe and I was wondering, to help this process, and to help people look at options if someone could produce a fact sheet on nuclear because it would help. The fact sheet could look at: here is what it is, what exists in the world and how safe it is. Chernobyl was a mistake, we know that, and if this fact sheet was developed it would help people make decisions. Someone needs to do that to understand why nuclear is not an option and spur on discussions.

Continued presentation on the resource options table – Randy Reimann

- Natural Gas
- Wind
- Large Hydro – Site C
- We are doing the calls and have awarded some contracts and we are anticipating more calls and the more of those type of facilities we must have something to go with it – they are part of the answer not all of the answer.

DISCUSSION:

Q: *Diane Culling:* I find this interesting that you chose to contrast wind and there are many other environment impacts from wind but wind versus large hydro. In the last year the Globe and Mail and other financial papers have written about BC's huge geo-thermal potential, BC stands alone on the rim of fire, and BC not been exploited geo-thermal because they (BC Hydro) have chosen to flood rivers instead for what people consider cheap hydro power. There were 12 other sites identified in the energy report. South Meager is an example of and represents one geo-thermal project just north of Pemberton within 170-kilometers of Vancouver. South Meager will produce about 100-megawatts of power. In the vicinity of South Meager is North Meager and there is a lot of potential there. South Meager will be built for \$400-million and won't cost anywhere near what Site C will cost. South Meager will provide employment for 40-people and Site C for about 10-people and throughout the province there are areas like that and we have the potential including between Chetwynd and Hudson Hope. When you look at the cost-benefit analysis and you don't do that for the other options none of these things are covered. You could

- spread the benefits throughout the province. What BC Hydro is doing is squandering that potential.
- A: *Randy Reimann:* I agree that geo-thermal is a good resource option and it has been identified, by BC Hydro, for a long time. When BC Hydro does a call everyone is free to bid on it and it an open process. Geo-thermal is believed to be there and to prove out the resource they have to drill holes and the government is looking at the permitting process to see what is stopping an independent power producer from doing more of that exploratory work. As well there is new technology for geo-thermal that allows lower quality heat to be used. There have been geo-thermal plants in California for decades - we are aware of geo-thermal power, we are participating and we are trying to see what is stopping people from developing it.
- Q: *Diane Culling:* I have partial answer for you because I spoke to the Manager of Public Relations of the South Meager project and he said that the biggest obstacle is access to BC Hydro's (power) grid.
- A: *Randy Reimann:* That is another issue with any resource option and if it is quite remote you need to build transmission lines to access it and it is true there is difficulty with building transmission lines in the Whistler Valley. There are other issues.
- C: *Diane Culling:* I asked him about local reaction to the project and it was a visual power line issue so what you have essentially said is that people in Whistler don't want to look at a hydro line and yet the people in the Peace have a dam flooding their valley.
- Q: *Randy Hadland:* Do Europeans use about half the electricity as us?
- A: *Randy Reimann:* I am not sure of the exact figure but it is less.
- Q: *Randy Hadland:* I think it is about half and if we switched that over then that would get rid of Site C.
- A: *Randy Reimann:* We are trying to understand within our programs why our per capita consumption is high but BC also has a large industrial base that uses power – Europe is very dense and we also have many more single family dwellings that contribute to use.
- Q: *Randy Hadland:* What is the net demand forecast?
- A: *Randy Reimann:* There is a load forecast and that is available on the web site – go the website under information and the long term acquisition plan there is a forecast.
- Q: *Randy Hadland:* Can I get a hard copy of that report?
- A: *Randy Reimann:* Yes and we will follow up on that with you.
- Q: *Brian Churchill:* There is over 1000-kilometers from the Peace River to the load and how long from the GMS generating plant to Vancouver does it take electricity? What is the delay?

- A: *Randy Reimann:* Essentially electricity travels at the speed of light although the electrons travel slower but basically turn on the generator and then it is there.
- Q: *Brian Churchill:* Whatever you have got now, over 90% capacity so when you talk about the unreliability of wind you already have 90% of your capacity, more enough capacity, so you don't need more hydro to balance wind. Am I correct?
- A: *Randy Reimann:* Not quite, there is enough capacity to meet the present load but as the load grows we will need more capacity so if we get that capacity from wind we can't count on the wind to be there all the time.
- Q: *Jim Little:* Last night I looked at the Ministry of Land's integrated land management web site and right now there are over 800-applications for independent power, wind and river. I checked on BC Hydro's application for use of crown land for studies and as of last night you had approval on 1 (application)? What about the other 4 (applications)?
- A: *Andrew Watson:* One application has been approved, another application is for south of the dam site for exploratory materials and others were to do with historic slide areas around the reservoir rim. We are still pursuing those applications and we will be doing the work next year. Right now we are looking at historical information and getting up to speed on that. We like to get the applications into the system because they take time to process and there is consultation around the permits themselves.
- Q: *Jim Little:* It seems like you are designing the system for export, for example, Victoria to Washington State has a transmission line and there is a transmission line from Tsawwassen to Vancouver Island and it seems like you are designing the provincial system for export. A lot of these wind energy and small run of river will depend on BC Hydro's reservoirs to sell power for export so we will build more dams to sell energy to the States. Presently, the wind energy goes all the way to the border and there is no ridge left from the Peace River to the Yukon so wind energy is more than that big right here now. It seems like the project is designed for export. With all the other stuff happening, it is a guise for BC because the huge lines are coming to the US/BC border so we will be running power through them. The small independent power producers will be relying on BC Hydro's reservoirs to fill the lines to the border.
- C: *Dave Conway:* With respect to your comments about the project being built for trade – Site C would be approximately 900-megawatts of dependable capacity and we have a gap right now – there is about 11,000 megawatts with about 1000-megawatts of that is diesel generation and a good percentage not connected to the grid and at peak we can't use that. At peak, for example, on January 7th when it was -25 below here in Dawson Creek and it was -5 in the lower mainland and we can't meet our own domestic need. We are importing energy high to meet that high demand period. We need more capacity in the system and ties back to the

statement about becoming more self-sufficient. Domestic first and if surplus then there is energy for trade.

Page 10 – Map of Peace River Country – Andrew Watson

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

- Q: *Dave Menzies:* I represent Canfor and we strongly favor the bridge with the provision that nothing happens to the highway to Hudson Hope.
- A: *Andrew Watson:* We absolutely support that – right now we simply talking about the crossing.
- C: *Dave Menzies:* We have wood and it is much further to haul to Chetwynd right now and spending more money and it is also creating more carbon emissions – there are lots of good things from this.
- Q: *Brian Churchill:* Will the capacity of the bridge be comparable to any MoT⁴ bridge in the province?
- A: *Andrew Watson:* That is a good question, it would be close if it was open to the public but we would be discussing that with the Ministry of Transportation about exact widths, road and so on.
- C: *Brian Churchill:* Should put a bicycle path across.
- Q: *Ken Boon:* It strikes me that (BC) Hydro is dangling this out to get us to support Site C and before they said no access across there and now they are throwing this bridge out there to get people on side about Site C. That is just my comment.
- A: *Andrew Watson:* This is attached to a larger regional planning issue and I don't think that BC Hydro will be making this decision, we are exploring

⁴ Ministry of Transportation and Infrastructure

- this because of feedback we got, for example, we have been asked by Chetwynd Council to explore it and there are also environmental reasons.
- C: *Ken Boon:* I imagine that Fort St. John and Chetwynd would like to see it but I imagine that Hudson Hope and Dawson Creek feel just as strongly the other way.
- Q: *Ken Miller:* Why not access right across the dam?
- A: *Andrew Watson:* BC Hydro, for security reasons, doesn't like roads right across the dam. This bridge has always been in the cost estimate as part of the major facilities needed to build the dam. It represents the most efficient route.
- Q: *Sarah Parsons:* What have you done to the existing network of roads in the area, this summer, to allow people in for studies? Have you actually put money in?
- A: *Andrew Watson:* Immediately after the dam site there are many access roads that crisscross and we are doing work there on the south bank with one drilling contractor and a few engineers and that work will go on for a few more weeks. There has been no investment on infrastructure.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

- C: *Randy Hadland:* I don't see the chart and I agree with Ken's (Boon) comment that you are dangling this out for us and I think this is grotesque and there isn't any kind of fairness in terms of what is going on.
- C: *Brian Churchill:* I am looking at the table on Page 8 (Discussion Guide) and then I am looking at the graph at Page 15 and I think we should sit down and look at all the BC Hydro projects and what has been spent in the province. Let us put it in real dollars. In the last consultation I asked about fish and wildlife programs on the Columbia and the answer I got from BC Hydro (letter) on July 7th was interesting in terms of budgets and the Peace (River) with the largest dam in the province has a budget of \$1.64 million for compensation programs and the Columbia has a budget of \$1.84 million for compensation programs and yet in the context of how many people are affected and the flooding of the valley the way that I would measure that would be in terms of productivity. What has been harmed and how much private land has been impacted and how many farms have been impacted and what about the impacts on green house gases and the vegetation and some those kinds of things? I want to see a table like that - a table that outlines on the same intellectual basis as you do in LTAP, or whatever you call it.

Q: *Steve Roe:* It is painfully evident from the questions coming from the table that there is a problem with the design of the consultation. You want to move to project definition and yet this is about options assessments not initial project justification. There is a serious problem here.

A: *Facilitator:* We have heard your comments loud and clear and the record hears you but I want to make it through the material for the people that are here so we need to move along but I am not disputing what you are saying.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Andrew Watson

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

There were no comments received.

Page 18 – Reservoir Preparation Considerations Table

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead

Q: *Brian Churchill:* Do you have an initial estimate in how much access you will create in kilometers?

A: *Andrew Watson:* No, but that is something that we will publish.

Q: *Brian Churchill:* Does BC Hydro have a commitment to managing weeds in the 7-year period? There will be seven years of disruption and that will create a lot of exposed ground and the potential to have an impact on the agricultural community is huge. BC Hydro's history of managing weeds in the valley has not been exactly sterling. Does BC Hydro commit to managing weeds and using native plants?

A: *Andrew Watson:* That is good feedback - please make a note of that on the Feedback Form.

Q: *Moira Green:* With respect to the Williston Reservoir there are significant slumping issues and landslides and those of us that live here know there are significant issues on the Peace River. How will you prevent this valley from sliding in?

A: *Andrew Watson:* Some areas will have protection, like Hudson Hope, but given the length of shoreline it is not feasible to have protection all along it – that is what we are trying to understand now with the studies.

Q: *Moira Green:* It is interesting to see a projection of what the valley will look like 5, 10, 15 years down the road because one of the selling points is recreational value and I can't see it because it will be too unstable and I can't see us using this for recreation because it will be too unstable. Will the stabilization be the same as for the Williston and Findlay and the

Parsnip because they are losing 3-meters of shoreline a year and that is unacceptable?

A: *Andrew Watson:* We will look at those tributaries but there are key differences and one of the differences is the shale versus sand and gravel around the Site C reservoir and another super important aspect is the wind because that is the energy which creates the erosion. We really need the data and we are working on that. Another important issue is the fluctuation and there is a difference at Williston with the large angle crossing.

A: *Moira Green:* The hills of Taylor rain mud when it rains and they slide.

Q: *Diane Culling:* Will the fill be coming in from Pine Pass? Is that a possibility?

A: *Andrew Watson:* Yes.

C: *Diane Culling:* The Ministry of Agriculture has extensive problems to stop the spread of hawk weed and they are trying to hold it at Pine Pass. Think about it.

Q: *Dave Menzies:* The Halfway has a serious stability issue on the north shore and regardless of whether you flood or not it will probably slide and in the past it blocked the river - in 1973 it blocked the river and they actually had flag people there for a while. How seriously is that being considered far as the integrity of the dam and flooding incidents because it seems like a potential safety issue?

A: *Andrew Watson:* That is a correct description of the Ache slide and the banks associated with it and a slide like that would be probable within the financial life of the Site C reservoir and the likelihood of an event like that wouldn't change with the reservoir and there are pre-warnings and challenges around that. BC Hydro would take a very conservative estimates and design to that level – from a dam safety point of view it will be addressed and we will manage public safety issues on the reservoir. The land slide wave impact line will be flagged and subject to certain hazards until additional studies are done to understand what the risk is.

Q: *Dave Menzies:* Would it be worst if there was no dam?

A: *Andrew Watson:* It is different to say because south of the dam we could create a small lake behind and then that gets released versus blocking the reservoir.

C: *Facilitator:* Okay, it gets technical pretty quickly and we are going to move along because I am cognizant of the time.

Q: *Randy Hadland:* Site C was not an impact on the Ache slide but doesn't the toe get lifted when that amount of water comes?

A: *Andrew Watson:* It can but it really depends on the site geology but it is correct that there are areas around the reservoir where there is a likelihood of a slide and that is why we are doing the work on it.

- Q: *Sylvester Apsassin*: I am from the Blueberry First Nation and all comments and questions are around that they (BC Hydro) have already built the dam and who is worrying about the migration of the animals. Not one of you people has said anything about the animals. Who talks for them? There are cow moose on the island and they live there and they raise their babies there and they use that island for predator control and no one is talking about that – everyone here is talking like they have already built the dam. It is 7-years and everyone works there and after that 7-years and the dam is done what is the certainty for me and my people of having any work? Are we promised positions within the dam or do we just work at medial jobs building the dam and then the dam just runs itself? What is in it for me, the Blueberry First Nation will be there, I was born and raised here and I will die here. WAC Bennett promised the First Nations that we will build this dam for the people so everyone will have hydro and on the first day they brought in the hydro line and one month later my grandmother got a hydro bill for \$21. I am still paying for hydro and the thing is it goes up and up every year. The thing is that the dam is right here, it is almost throwing distance, from my land.
- A: *Siobhan Jackson*: Are you asking about an employment profile with a lot of employment then what is the long-term?
- A: *Jack Weisgerber*: We will be spending a considerable amount of time talking to the First Nations that might be impacted and as you move further and further away there will be less impacts but there are obviously impacts to the First Nations in the traditional territory. I met with your Chief and Council in Victoria, this morning, and we have set out a program where we will have extensive discussions with First Nations around issues.
- Q: *Brian Churchill*: In times past, it was identified for the proposal, that a safe line would capture where there could be a probable land slough. I understand that it is a probability estimate but are you going to identify a line around the areas that might be eroded or might slough so that we can look at it? A similar type safe line and provide us with that probability line so that we can identify how much land will be impacted.
- A: *Andrew Watson*: Absolutely and your description is exactly what we are working on. In the past we identified the safe line and one of the tools today is to put, for example, an erosion line, and a specialist consultant is looking at that and other similar projects for impact assessments.
- Q: *Brian Churchill*: When will we see it (studies)?
- A: *Andrew Watson*: The update will be available at the end of Stage 2 and as part of the Terms of Reference for the regulators in Stage 3.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead – Andrew Watson

- Q: *Diane Culling:* So the design isn't confirmed and so with respect to the volumes represented are they a best or worst case scenario?
- A: *Andrew Watson:* The material will be close to what is needed but may change with respect to the shifting of disposing areas.
- Q: *Diane Culling:* So it is more of how you will use the materials?
- A: *Andrew Watson:* Yes, it is about final source areas and how the material gets moved around.
- Q: *Gordon Westergart:* At the WAC Bennett Dam the area was stripped and that created problems for recreational boaters, etc. trying to use the reservoir?
- A: *Andrew Watson:* The base clearing plan is on Page 16 of the Discussion Guide and stumps will be cut so as not to be a hazard for boaters.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Siobhan Jackson

- Q: *Dave Menzies:* What about the reptiles because they are very important. Are you doing anything with the snakes?
- A: *Siobhan Jackson:* We did a garter snake habitat review this fall as a result of local knowledge and next year we will do a field survey program to learn more about the habitat use in the proposed reservoir area.

Page 23 – Stage 2 Baseline studies underway or planned – Siobhan Jackson

There were no comments received.

Page 24 – Land Use; Agriculture

There were no comments received.

Page 25 – Forestry; Mining and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

There were no comments received.

Page 27 – Information Item – Transmission Lines

- Q: *Randy Hadland:* I would like to go back to an earlier discussion with Brian (Churchill) around terminology around Terms of Reference and study outlines and you sent me some study outlines but they were very, very, very vague and I found a lot of items of Pages 23, 24 and 25 (Discussion Guide) weren't mentioned as to what stage of development the rest of the studies are at. There was one sentence dealing with plant and wildlife vegetation and it didn't say anything – that's how vague they

are and you must have more detailed information to give to your study consultants?

- A: *Siobhan Jackson:* There are contracts with the consultants and deliverables are developed through the either a RFP⁵ process or another procurement process as to what work is required.
- Q: *Randy Hadland:* BC Hydro must have a minimum standard and so you must have access to Terms of Reference before you make the contracts. I would like to see a representative Terms of Reference and if I send my request to you regarding what I would like to see will you send them to me?
- A: *Siobhan Jackson:* BC Hydro has committed to the study outline and formats because they will provide a level of information to a large audience that is interested in those.
- Q: *Randy Hadland:* What about an impact assessment if we go to Stage 3?
- A: *Facilitator:* I am hearing you say that the study outlines are too vague and that you are requesting more detail or a more detailed outlines or something like what you have described as a more detailed Terms of Reference for the studies.
- A: *Siobhan Jackson:* There are two ways for study details to get developed: sometimes BC Hydro knows what they want and are prescriptive in their RFP and in other times we look to the potential consultants for their proposal to the question at hand. So the proposals are received and accepted and/or modified – there are multiple processes whether initiated by BC Hydro or extracted things for a broader audience in the study outlines so that they can be understood by a broad audience. There are objectives, methods and scope of the work and that is the type of study outlines that we will prepare for new scope as they are done. Some of this list is planned for next year and as the material is available at that level we would produce those as well.
- Q: *Randy Hadland:* With respect to the people you are consulting with can we have impact on, for example, the socio-economic on agriculture or wildlife - can we have input into the study outlines?
- A: *Siobhan Jackson:* The socio-economic is gathering pre-existing information, it is not primary research and if it moves to Stage 3 and we are developing the topic then we would shift to an impact assessment. At Stage 2 BC Hydro is not completing an impact assessment rather it is gathering information to support an impact assessment from pre-existing sources and looking at recent information that is available and working with agencies to understand if that information is at the right level to inform in order to inform an impact assessment at a later stage.
- C: *Facilitator:* I am hearing that it is too vague and that you would like more detail but in the interests of time we need to move along.

⁵ Request for Proposals

- Q: *Randy Hadland:* Can I get the information if I send you what I am interested in, for example, Terms of Reference for the contractual arrangements?
- A: *Facilitator:* The answer is that you would get existing (study) outlines but not a commitment for more detail.
- Q: *Diane Culling:* With respect to the topic source gravel and material what consideration will be given to competing users such as MoT⁶ because there will be long terms impacts on the region for our construction and highway maintenance.
- A: *Andrew Watson:* That is a super important consideration for the dam including the flooded area of reservoir; we will have extensive consultation with other users.
- C: *Diane Culling:* Potentially there could be negative impacts for the Fort St. John construction industry from the loss of gravel that is extracted for the dam.
- Q: *Brian Churchill:* What percentage of regional competent gravel supply will be buried by this project? We know the importance of competent gravels and this proposal will have a large impact.
- A: *Siobhan Jackson:* I don't know if we have the answer but I will see what information is available.
- Q: *Sylvester Apsassin:* What about toxicity levels of cut trees because we have a lot of logging operations all over the place and we do log and our question is all the time is how close to a creek are we because of the toxicity levels of balsam. Also, not only that giving off toxicity and in the past we had buffer zones and a lot of logging operations out here have killed off a lot of fish and wildlife – have you considered that? What about the migration routes of smaller animals like the martens and rabbits? The reason I ask that is that we have animals all over the area if one animal gets chased out of the area and if you have the same animals breeding all the time you will get in-breeding and this why I am asking this question. How is BC Hydro going to give the Blueberry (First Nation) assurances that the small animals won't be impacted? What about the small animal impacts? Also, I haven't heard anything about the toxicities of trees etc. and they bleed just like us.
- A: *Siobhan Jackson:* Those are good comments and we will take into consideration in terms of our water quality studies and reservoir preparation activities.
- Q: *Brian Churchill:* There have been a number of questions around resources; what about assessment of habitat occupancy and the vulnerability of salamanders; there is also potential for impact on grizzly genetics because

⁶ Ministry of Transportation and Infrastructure

this is the only area left between the WAC Bennett dam and the Peace Canyon Dam and Fort St. John this side of Rockies and will it wreck the connectivity for the grizzlies? BC Hydro has been funding throughout the province on their dam's terrestrial productivity retroactively will you do that before this project goes ahead and what about work done previously, will you be doing this? My last comment is that science depends on disclosure of methods, what has been done, analysis and results and data and I am just totally frustrated with you talking about consultation when you won't disclose the Terms of Reference for your studies and on the BC Bid website it says that the contractor has to sign a confidentiality agreement before they can even see the Terms of Reference and this is contrary to good science. Will you release the names of the contractors and what are the deliverables? I recognize that you looking for a primary data set but how can anyone assess base line inventories if you don't identify basics. Basic science like: who did it, what were the results and who analyzed the material. I am totally frustrated with your answers. You are in conflict with any scientific principles that I hold. This whole thing is not about transparency, this is a snow job. I can't in the interests of science assess it and neither can anyone else.

A: *Siobhan Jackson:* We talked earlier about releasing the full report and the full report will contain a detailed description the methodology, science, deliverables and the results in a complete report and the authors and the investigators.

Q: *Diane Culling:* With respect to the safe line and the reservoir – there is some local support because people think they will be able to buy lakefront property? Is that realistic? This idea that this will become cottage country is that realistic?

A: *Andrew Watson:* I don't know the definition of cottage country but the focus of the stability line will be residential and setbacks will apply.

Q: *Diane Culling:* Any area within 100-meters of the waterfront that you allow new buildings from the high water mark.

A: *Andrew Watson:* Yes, fair assumption, areas like Hudson Hope for example.

Q: *Diane Culling:* Cottages, not in Hudson Hope.

A: *Andrew Watson:* There will be shallower slopes where there is existing use and in areas it could be substantially less than 100-meters but we are in the process of working on that and it is to get a reliable number and it is not as simple as drawing a line because there are many things to consider including wind/geology. This is not something that can be done overnight.

C: *Axel Zalbock:* One more comment - our politicians tell us this is the best place on earth and that is controversial but I know that particular valley is one of the best places on earth and if we build a dam and flood it and in

light of all the new advances and technology this would be a capital crime on nature and keep that in mind.

- C: *Sylvester Apsassin*: If BC Hydro is planning on building a dam why not build it south of the mountains – they leave it in the north and say to hell with the north. Build it over there and then see what happens.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation

There were no further comments received.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Consultation Round 2 Feedback Forms.

5. Closure – Dave Conway

Thank you for your comments and your questions and your patience and we appreciate that and there are many different ways to provide that feedback. We appreciate your time and information.

The small group multi-stakeholder meeting was closed at 5:00 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

FORT ST. JOHN MULTI-STAKEHOLDER MEETING

October 2, 2008

Notes from a multi-stakeholder meeting held with representatives of the Site C Project Team and the Fort St. John community on October 2, 2008 at the North Peace Cultural Centre, Room #1, 10015 100th Avenue, Fort St. John, B.C.

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Kate O'Neil, BC Hydro
Randy Reimann, BC Hydro
Andrew Watson, BC Hydro
Jack Weisgerber, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Annette Bailey
Charity Blaney
Mathew Blaney
Melody Blaney
Diane Culling
T. Euchner
Stanley Gladysz
Laurel Hadland
Joe Halpentis
Patty Hebert
Ray Hebert
Verena Hofmann
Jan Jarvis
Karl Kirschbaun
Sharon Kirschbaun
Mike Kroecher
R. Koechl
John Locher
Blane Meek
Maryann Meek
Oliver Mott
Pamela den Nouda
J. Phillips
Rosemary A. Phillips

Valerie Powell
Darrell Reginbald
Steve Roe
Eliza Stanford
Helen Vokaty
Chris Wagner
Colleen Wilson
Gail Woodford
Harold Woodford
Julie Ziebart
Kelly Ziebart

The meeting was called to order at 6:30 p.m.

KEY THEMES:

- Participants were concerned that the consultation process does not present enough information regarding environmental studies and results.
- Some participants said they thought the Discussion Guide should have been available earlier.
- Participants felt that following Pre-Consultation, BC Hydro should have consulted more on alternatives to Site C rather than proceeding to Project Definition Consultation.
- Participants wanted more information on slope stability around the proposed reservoir and they expressed doubt that the slopes would be stable enough to allow for safe recreation in the area.

1. Welcome and Introduction of the BC Hydro Project Team

Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator further advised that while the notes are not verbatim they are detailed notes and that speaker attributions will be shown. These notes will form part of the consultation record and will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record notes that while every attempt has been made to secure the correct spelling of participant names, we apologize in advance for any misspellings.

The Facilitator noted that the Discussion Guide and Feedback Form are available on line at www.bchydro.com/sitec.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec. The following abbreviations will be used in the meeting notes and mean: Q: Question, A: Answer, and C: Comment.

DISCUSSION:

C: *Lauren Hadland:* I have sat through a number of pre-consultation and consultations meetings and now this is the time for questions to be answered for all.

Ms. Hadland departed the meeting.

Q: *Mike Kroeher:* Why wasn't the Discussion Guide released sooner? I would have liked to have had it sooner so that I could prepare for the meeting. Yet when I inquired I was told it wasn't available, so why not?

A: *Facilitator:* It (Discussion Guide) went to the printer on Monday (September 29) – it just wasn't available sooner and it will be available for the full two-months of the consultation.

C: *Mike Kroeher:* It seems to me that you are taking advantage of us, we come here and I had no idea what was going to be discussed and you have had time to prepare and we have nothing – that is ridiculous.

A: *Facilitator:* The information was available as soon as it was ready and will be available for the entire two-months of the consultation.

Page 1 – Site C Background – Dave Conway

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes; Environment Assessment; British Columbia Utilities Commission

There were no comments received.

Page 3 – British Columbia's Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

There were no comments received.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

Q: *Diane Culling:* Plus or minus 1.8 meters is the anticipated operational level – what is the actual water license BC Hydro would apply for? What is the maximum fluctuation?

- A: *Andrew Watson:* It is within that range and that would be part of the licensing for that project.
- Q: *Diane Culling:* Without any room for error that is all you apply for?
- A: *Siobhan Jackson:* Water licenses normally contain references to what is called normal minimum and maximum elevation so that would be in this case 461.8 meters is the maximum minus the 6 feet or the 1.8 meters that we are talking about and it would also contain emergency operating levels to ensure dam safety to accommodate the physical needs of the project and would be regulated by the water controller.
- Q: *Diane Culling:* Do you have an estimation of the fluctuation for emergency measures?
- A: *Siobhan Jackson:* There are numbers available and we can follow up on that on the historical design features – what the minimum and maximum elevations are?
- A: *Andrew Watson:* We know that it would be down from a maximum of 12-meters and no lower. Our commitment is that the operation of the reservoir would be between 1.8 meters.
- Q: *Steve Roe:* My question goes back - my understanding was there would be a report on the Round 2 Stage of public consultation – that this document?
- A: *Facilitator:* You mean the results of the Round 1 consultation, it is a consultation summary report and it was posted on the website two days ago.
- Q: *Steve Roe:* I would like to echo concerns because this raises a time line problem – this is Round 2 Stage 2 and there was no public access to the results of Round 1 Stage 1 until a few days ago and that is a bit of a problem. What are you going to do about that problem?
- A: *Facilitator:* I am not sure there is an answer - it was ready when it was completed and posted as soon as it was available.
- Q: *Steve Roe:* While I don't want to rehash issues we talked about earlier today there is a lot of research out there about dam-based public consultation processes and the effects of dams on people that could be displaced by the construction and I would like to know if you consulted any of these international studies that articulated best practice studies in designing the public consultation?
- A: *Dave Conway:* The design of the consultation process was by BC Hydro and approved by the provincial government and scrutinized by the British Columbia Utilities Commission that is the start of the answer.
- C: *Siobhan Jackson:* I worked on stage 1 and we did look at the work on the World Commission on Dams report and I did have a conversation with you about that and the Hydro Power Association and their recommendations on project development as well.
- A: *Dave Conway:* We did meet with Quebec Hydro, Ontario Hydro, Shell and others related to consultation processes around large projects.

- Q: *Rerena Hofmann:* This is about providing information in a timely way to the public for the consultation is to be meaningful and that hasn't happened and it is obvious that it hasn't happened. In terms of getting questions answered in Stage 2 there is not enough time for people to be reading through this additional information and formulate new questions. In terms of this meeting are you going to read this out (Discussion Guide) page-by-page because I can read myself and did you ask the public about what they want to talk about? This is not valuable and if we only have 2-hours you are wasting my time.
- A: *Facilitator:* With respect to the availability of information and with respect to the consultation Discussion Guide there will be 20-stakeholder meetings and 7-open houses, during this consultation, and the information will be the same throughout the process. You will have the full 2-months to look at the material. As to tonight's consultation - in the pre-consultation phase a large number of people asked for meetings like this with the BC Hydro Site C team present and a question and answer session with substantive information in front of them
- Q: *Rerena Hofmann:* Can you please explain how the province has delegated authority to consult with the public?
- A: *Dave Conway:* BC Hydro takes direction from the government through the energy plan in 2002 and the update document in 2007 and the government said look at Site C and speak with communities, stakeholders, First Nations and the Province of Alberta and bring the information related to the project up-to-date and gain an understanding of the impacts and benefits and that the consultation was clear and what the stages were.
- Q: *Rerena Hofmann:* So it has delegated full authority?
- A: *Dave Conway:* Yes – in Stage 2 only and there are five stages.
- C: *Melody Blaney:* My concern is about the material as well - the material was not available until yesterday and when a person has a full time job that is not enough time. I went onto the website last night and there was one document that was over 100-pages long. There are only a few meetings at the beginning of the month and documents are received at the last moment – for example, the minutes from the last consultation were not received and we don't know what people said and I object to the process.
- C: *Facilitator:* Thank you; we have heard your concerns and they have been noted.
- C: *Stan Gladyz:* I am not opposed to Site C if it is not too high and I would like to see it lowered as to not flood the Halfway Bridge. There could be another dam put in near the Alberta border, in that canyon, and the damage would not be too much. They have already lowered the dam level quite a bit and if it were lowered a bit more it would limit the damage.

- Q: *Oliver Mott:* We need a determination – does it talk about needs within the province or does it not include export to states?
- A: *Randy Reimann:* In a few pages we will be discussing that. BC hydro does have a Long Term Acquisition Plan which is a 20-year analysis of how we meet the needs of our customers (Page 7 of the Discussion Guide) and a load forecast is included in that report. It is on the website.
- Q: *Oliver Mott:* What about energy below the border is that a need?
- A: *Randy Reimann:* No.
- C: *Diane Culling:* My comment is about consulting with Quebec and Ontario Hydro and best management practices because that doesn't constitute good practices and just because talking with one another is about how to approach the northern problem. Northern people are being impacted for the southern market and export and it is not sufficient to say you talked to Ontario Hydro in this realm.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics – Dave Conway

- Q: *Melody Blaney:* When do we get consulted on wildlife – there are a whole bunch of topics that aren't being covered and when are we going to talk about them? There are a whole bunch of topics that are missing and when are we going to be talking about them?
- A: *Siobhan Jackson:* There are engineering components and then the considerations which are mostly around environmental and socio-economic work. In round one we raised the topic of fisheries and in this round we have been talking about wildlife and land use and there is context on those topics.
- Q: *Melody Blaney:* Having the consultation go through every phase what does it look like?
- A: *Dave Conway:* We are not the regulator - information will be provided to the regulator and BC Hydro doesn't determine it, we can't tell you what that will look like.
- Q: *Melody Blaney:* So this is the end of the consultation between people and BC Hydro?
- A: *Siobhan Jackson:* The environmental phase does have a consultation requirement and opportunities are required by law for that and BC Hydro is required to participate in those setting. Look at the BC Environmental Assessment Office's website to see how the process is documented and delivered - BC Hydro will be an active participant in all of that work.
- Q: *Rerena Hofmann:* If it does go to the environmental assessment stage how will you characterize how the proposal will impact the public if you aren't really consulting on impacts and how can you do that properly and adequately if we don't have information from baseline studies and that

comes later in the environmental assessment process – how are you consulting with us?

A: *Siobhan Jackson:* This process is ahead and in advance of when a proponent would consult with the public through the regulatory process and we are looking to consult in advance of when those studies will take place. We still have studies ahead. This is the first and early opportunity this year and doesn't preclude other opportunities associated with a project like this. This is somewhat extra in terms of being ahead of the process and may be confusing but we are here in advance of the environmental assessment process and we have studies underway and will include in the work ahead.

C: *Mike Kroecher:* What that young lady just said doesn't really make much sense – it is like a teacher testing students before teaching the subject and everything is about the lack of information and yet at the same time you call this a consultation, this is not and I am disappointed with your approach.

Q: *Charity Blaney:* I agree with Mike (Kroecher) and Siobhan (Jackson) makes it (consultation) sound like a treat for us but if you had asked us we would say we want information. Your favorite answer is that you have to do the studies – you act like it is a favor to consult with us and it is not a favor.

A: *Facilitator:* At the pre-consultation phase we did ask how you want to be consulted and I hear that wasn't enough or wasn't satisfactory for you.

C: *Charity Blaney:* You never listened to us.

C: *Steve Roe:* It is just that there is an overriding theme coming from the floor both tonight and this afternoon and what people are telling you now and told you earlier today is that this consultation process skipped a step. Stage 1 was pre-consultation and Stage 2 was project definition when it should have been project justification and you were told that very clearly in the pre-consultation round. The highest feedback on your graph was asking for a justification for the dam and we don't want a dam at all and that is not what you are talking about – I think that is a serious, serious flaw.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Randy Reimann

There were no comments received.

Page 8 – Resource Options Comparison

There were no comments received.

Page 9 – BC Resource Options Comparison

There were no comments received.

Resource Planning and Energy Planning

- I would just reiterate what I said earlier about the long term acquisition plan
- Hydro does 20-years of forecasting and we look at our existing supply and electricity needs and resource options and what they cost and how they compare and come up with a recommendation
- That becomes a regulatory application and currently we have in front of the British Columbia Utilities Commission is our 2007 Long Term Acquisition Plan
- We have a 10-year action plan and try not to get too far ahead because the world evolves
- We have a 2008 energy call to meet our needs in 2016 time frame
- In terms of meeting needs the starting point is looking at conservation first
- Conservation is cost-effective and benign
- There is an aggressive conservation target in LTAP¹ and it is not without risk but we are quite confident that we can get there
- Key issues for the 2008 LTAP is tradeoff between thermal generation and renewals and often renewals are intermittent
- We need to be able to count on generation being available
- Some of the thermals have emissions and one of the requirements for us, is from the government to reduce green house gas plants
- So on one side are thermal resources and it is reliable and on the other side is renewal resources
- Wind is intermittent and available when the wind blows and when it doesn't blow we need something else to meet the load and that is the same with small hydro
- Government's energy plan – maintain 90% clean energy portfolio on the supply side
- We do a resource options report and it is a process wherein we consult with our customers, stakeholders, environmentalists, supply demand people and then consider what we need to meet future need and then we ask what the scope would be, what studies are needed and are the results fair
- There was a 2005 Report and we have updated that report in the 2008 LTAP
- Back to the table (Page 8) and the different color blue are resources that aren't available to us, wave and tidal are being looked at but are not proven out, distributed generation is out there but not a lot of people are doing it and it is expensive, coal is out there and the government has directed that all emissions must be sequestered – a technology that is not yet commercial.

¹ Long Term Acquisition Plan

DISCUSSION:

Q: *Eliza Stanford:* What about solar?

A: *Randy Reimann:* Solar has been around but it is expensive and not cost-effective for BC Hydro to pursue but we are aware of it and there are some large scale utilities in the US doing it.

C: *Eliza Stanford:* Germany is huge and surely there must be some data that is available.

Q: *Diane Culling:* Did 10-years ago we envision that a 5-year old would have a cell phone that would take pictures and connect to the internet. I take exception that it is expensive and the technology is not there yet - the world will be such a different place in 10-years. So it is not valid to say expensive and technology not there yet.

A: *Randy Reimann:* We consider resources step-by-step on what to do next and when we make the decision it is based on what is commercially available.

Q: *Diane Culling:* How much of the consultation goes into the cost?

A: *Dave Conway:* Consultation cost: Stage 1 – \$7-million and Stage 2 - \$41-million with a total spent to date of \$48-million and to be clear that number is a combination of consultation, engineering, technical and socio-economic studies. This is Stage 2 and it is \$41-million and that adds up to a total of \$48-million.

Q: *Diane Culling:* My point would be that a lot of energy and a lot of money are going into this and we seem to be pushing the 21st century aside, Site C should be the last option not the first option and it appears to be the first option.

A: *Randy Reimann:* We are running an open call for clean resource this year and if someone has a solar facility and we could fit it in we would be happy to see it.

Continuing with the presentation– Randy Reimann

- Natural gas – we look at what is available commercially, what is cost effective and adequate to meet our needs over the next 20-years, best guess and probably lower end of cost
- Range of gas is quite wide and future gas prices – has to be offset for green house gas emissions and the government requires it to be off-set immediately
- Gas - turn on when you need, turn off, dependable energy, reliability is very good and can cycle
- Impacts of natural gas not that much - main concern is green house gas emissions
- Compared to wind looking at investigative use permits and a fair bit has been identified in the province – unit energy cost and quite a range based on how much the wind blows. Some fairly cost-effective then it goes up.

- Issue of wind is how much it blows – it is intermittent and when the wind blows it is great and we are finding that volatility and speed to ramp up and down can be quite difficult for the electrical system to integrate it in and in Europe we are starting to see caps on it – 20% penetration rate
- Wind – there are impacts for birds/bats and some water impacts
- Benefit – green house gas emissions offset thermal generation when running
- Wind is a clean resource and quite attractive – primary resource being built around the world – a lot of demand for wind turbines and as a result it is pushing up the cost of turbines.
- Large hydro - Site C – unit energy cost range
- Extremely flexible resource, good capacity and lasts a long time
- Land and water impact

DISCUSSION:

- Q: *Oliver Mott:* On Page 8 there is a projected availability of resources and Site C has 70-years and our climate seems to be changing and I am not sure from how much water flow comes from water melt or from precipitation but if the climate changes and it becomes drier has that been taken into account?
- A: *Siobhan Jackson:* BC Hydro is participating in a system-wide study to understand what the potential impact of climate change is on our inflows and that information would go into this project. With respect to the contribution of glacial melt, while I don't have the numbers, on the Peace it is mostly precipitation.
- Q: *Oliver Mott:* What effect would the construction of Site C have on that climate change?
- A: *Siobhan Jackson:* There are two studies just being initiated and there are no results as of yet but we are modeling green house gases and net change, construction and movement of trucks, etc. Site C is a northern boreal reservoir and, using a formula developed across Canada, a reservoir like Site C would be one of the lowest in the world – cold climate with very little vegetation being inundated would have a low emission profile.
- Q: *Oliver Mott:* Bennett Dam and Canyon Dam had a dramatic effect on the river and it seems to freeze now?
- A: *Siobhan Jackson:* We are working on a local climate model and a water temperature model and the input would take about two years because it is a sequencing process and the information from the water temperature model is needed for the local climate model. That work has been initiated and is underway.
- Q: *Rick Koechl:* With respect to wind power might you have under wind that it is a fledging issue. How would you rate that (wind) for Germany or Denmark?

- A: *Randy Reimann:* On an average output wind is quite good on the energy side.
- Q: *Rick Koechl:* Germany, what is it?
- A: *Randy Reimann:* I would need to look at wind records and 10-years data would look at a 10-year average and what is the average amount of wind.
- Q: *Rick Koechl:* Germany, what is the number?
- A: *Randy Reimann:* I don't know.
- Q: *Rick Koechl:* I would like to know that number, I know they have problems as an intermittent source, is that how it is being treated in Germany and Denmark?
- A: *Randy Reimann:* Yes and Germany relies on Norway and Sweden because they have large hydro facilities and interconnected transmission lines.
- Q: *Rick Koechl:* Do you know the status of Denmark?
- A: *Randy Reimann:* Denmark, Germany and Spain are probably the three wind leaders and in the 20% operating capacity and coming up against the cap of managing in the system. We are running an acquisition process and we have acquired 3-wind contracts however if you build wind you have to have something else with it to manage it.
- Q: *Rick Koechl:* How many in BC?
- A: *Randy Reimann:* Not one, in 2003 power call there was a wind farm that was awarded a contract but it never made it. In 2006 we awarded 3 contracts.
- Q: *Rick Koechl:* So there is no hard wind data to go with the province?
- A: *Randy Reimann:* That is right and that is why we have a wind study and we are getting a model to get a wind data set to understand better how it fits in the system.
- Q: *Rick Koechl:* How many turbines are running in Germany right now?
- A: *Randy Reimann:* Hundreds, I don't know.
- Q: *Diane Culling:* Can you address geo-thermal and the 12-marketable sites that were identified? Are they cost-effective?
- A: *Randy Reimann:* I don't recall how many sites in the report but it is an attractive resources.
- Q: *Diane Culling:* The 12-sites were identified and were cost-effective.
- A: *Randy Reimann:* The Energy Plan of 2002 and updated in 2007 said that they didn't want hydro building all the generation in the province only large hydro and wanted others so if geo-thermal is built then independent power producers need to build it. The issue is that you need to drill holes and if you drill and if you hit a hot spot when you drill that is good but if you don't then you have nothing. The government is looking at this in terms of approving drilling rights and trying to see if we can get more geo-thermal on the table.
- C: *Diane Culling:* It is a beautiful fit with northern gas and oil and Chevron has put \$100-million into it and the stock market is looking at the huge

potential of geo-thermal and BC Hydro is behind the wave and Site C is counter-productive to having geo-thermal.

- Q: *Colleen Wilson:* Is geo-thermal cheaper to run than a BC Hydro dam? Would it be cheaper?
- A: *Diane Culling:* On a note of technology changing they are going into hot rock mining and drawing on other things and there are huge leaps in where it is going. Comparatively speaking it is in the range of hydro.
- Q: *Melody Blaney:* What percentage of power in the province is from large hydro?
- A: *Randy Reimann:* 85% to 90%.
- Q: *Melody Blaney:* We are always hearing how Site C will help to develop more firm power to help the base for intermittent power but how is it that Europe can find up to 20% of its power from wind and make it work and yet you still want to build more?
- A: *Randy Reimann:* What we have currently is enough generation in the system to meet current needs and as the load grows we will need more in the system and with wind we will need a capacity source.
- Q: *Melody Blaney:* How much wind are you planning on buying?
- A: *Randy Reimann:* It is an open call, when we issue awards of contracts a lot of contracts don't come to fruition. The call is for 500-gigawatts hours – it is an open call. Again, it is a good energy contribution but just need capacity with it.
- Q: *Melody Blaney:* So Site C is not necessary. How I understand it is that BC has all new power generation and it has to be zero emission so how will Site C be offset?
- A: *Siobhan Jackson:* We will do the model to look at the net change and then look at offsets and right now we don't know if there will be a net increase. With respect to the mitigation activities the work we are doing now is baseline work and if we move to Stage 3 then we will be looking at impact assessments and reduce or avoid effects.
- A: *Randy Reimann:* BC has joined with the western states on a western climate change initiative and off-sets will be purchased and sold and the information is available on the internet.
- C: *Melody Blaney:* So that is probably how Site C green house gas emissions will be offset.

Page 10 – Map of Peace River Country – Andrew Watson

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

C: *Sharon Kirschbaun:* We farm across the way, just down from the lookout, and we have used this road presently is an unpaved road, it is a radio road and it is a dangerous road. It is not for tourists and not set up for public access at this point. At one point there was a road from Taylor across to Chetwynd but since the bridge at the Pine (River) washed out it is not accessible any more. There are hunters in there, logging is going on and I have had a truck demolished and nearly lost my head. We are the only farmers in the area and we were asked that we be in radio communication. Unless you would have a paved road and have it serviced and monitored by the RCMP then there are problems with the road.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

Q: *Chris Wagner:* Are you including all the costs of new infrastructure, new sewer and on-going policing for Site C?

A: *Siobhan Jackson:* The amounts to compensate for effects are included in the cost estimate – this is going above and beyond that, what else.

Q: *Chris Wagner:* What additional costs are to be added onto the Site C project? So all the information you are waving at us are carrots and yet you are not telling us that it will cost even more.

A: *Andrew Watson:* The cost estimate update at each stage is based on the best available information so whatever both mitigation and potential regional benefits will get considered.

C: *Dave Conway:* Not knowing a potential benefit.

Q: *Chris Wagner:* So you are not setting a budget?

A: *Dave Conway:* We have not set a framework for this and we don't know what the structure will look like.

Q: *Diane Culling:* Based on public input and the fact you say health facilities and we are hearing that Fort St. John might get a new hospital perhaps the government will say that the new hospital is contingent upon us giving support for Site C?

A: *Dave Conway:* This is information that came from the consultation.

C: *Diane Culling:* The fact that it is in the Discussion Guide makes it sound like a carrot.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Andrew Watson

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

Q: *Oliver Mott:* What do you mean by saying that the stumps would be cut to 30-centimeters?

A: *Andrew Watson:* Yes, they would be cut down to 30-centimeters so there would no hazard to boaters.

Q: *Stan Gladysz:* So all the timber would be harvested?

A: *Andrew Watson:* Yes.

Q: *Eliza Stanford:* I know that we go canoeing on Williston periodically and the shoreline there is very dangerous and it was flooded over 40-years ago and it continues to be a dangerous shoreline. I don't see how you can ever mitigate the erosion in this valley because the trees are still falling over decades later. How can you possibility prevent the continual erosion over the lifespan of the project where you can recreate on a lake?

A: *Andrew Watson:* There would be a clearing plan and we would do the best to mitigate against that and shallow slopes won't be subject to erosion and there are a lot of terraces near the reservoir and shallow areas and there would be safe areas. The stumps would be taken off right to the ground.

Q: *Mike Kroeher:* My point is similar to Eliza's (Stanford) and is around boating safety and boating suggests recreation and I know the Peace and some of the slopes are so steep that I stay away from the shore because otherwise debris will hit me in my canoe. We live right here so we will be able to see the reservoir and right now there are steep slopes that change every year because of sloughing and once the reservoir is there, there will be steady wave action so there will be more erosion. You are also not considering the Ache Slide so how can you say that about recreation - it will be too dangerous.

A: *Andrew Watson:* There will be after a period of monitoring where recreation could be used for most of the reservoir. We will have to compare the predicted performance of the slopes with the actual performance. There are a lot of reservoirs and lakes in BC where people recreate and there are some hazards and there may be areas of the reservoir that are flagged off for a longer period of time. I understand your concern and I think it comes down to what you would consider recreation.

C: *Mike Kroeher:* You cannot compare this reservoir with lakes so that comparison doesn't apply.

C: *Stan Gladysz:* If you would go with my suggestion to reduce the height of the dam you would stay within more stable levels and you would not have

problems similar to Williston. The lower level hits some old beaches that goes back to the ice age melting and you would not have anywhere the problems and it would be more stable.

- C: *Colleen Wilson:* I have lived here for 100-years and I have watched the river and it changes all the time – the earth is alive and change just happens so how do you expect it not to change, it is natural. I think the change may be a benefit. I agree with Site C, it is clean energy.
- C: *Stan Gladysz:* I agree with that.
- Q: *Oliver Mott:* The best comparison we have is Williston Lake and I am wondering if there are any studies on the effects of the construction on wildlife, on health and the diversity of wildlife, and projections in this case. It has been 40-years; are there studies on the effects on wildlife, are there studies on Williston?
- A: *Siobhan Jackson:* I don't have an answer to the question regarding effects on wildlife however I will follow up on that for you. This is a big question and you want me to give you a simple answer and I don't think there is one. There are a number of studies, on a number of species to understand their current status in the Williston - there are dozens of reports on our website under the compensation program at Williston focused on wildlife and the various programs associated with it. What I can do is follow up on this in terms of directing you to that information.
- Q: *Melody Blaney:* With respect to wildlife - have studies been done on the Y2Y² corridor and the effect that Site C would have on it?
- A: *Siobhan Jackson:* We haven't studied that specific question in terms of that but in terms of connectivity we are doing a collaring program for deer, elk and moose to understand their travel movements, in and around the reservoir, and how they live out their life. We need to know where they go, how far and what their full range is and next year we will add black bears to the study as we are in discussion with the Ministry of Environment around that and work out the best approach. The Y2Y corridor is largely focused on the larger species.
- Q: *Chris Wagner:* In this current Round 2 of consultation, in the Discussion Guide, you have just used the erosion impact line but in the first consultation round you used a ground water study? What is the impact of ground water on vegetation?
- A: *Andrew Watson:* That is two of the analyses that we are working on right now. First step would be predicating where the ground water would go and we are working on that right now.

² Yellowstone to Yukon

- A: *Siobhan Jackson:* We have undertaken base line terrestrial eco-mapping on the valley and we can overlay with potential climate changes on groundwater might have and changes that might influence some of the eco-systems. Agriculture: some lands would be favorable and some would be too wet for agriculture but we don't want to assume that now.
- C: *Chris Wagner:* Are you looking at that because as the groundwater table rises it will negatively impact the trees that have currently grown in those areas.
- C: *Sharon Kirschbaun:* Water tables change and the dam is 70-kilometers west of us and we used to produce nearly 800-bales of hay and we almost got two crops a year off it and yet in drought years we were lucky to get 17-bales so the water table has been affected. There is a beaver dam that I can almost see the entrance to so there is that daily fluctuation that is coming about 7-8 hours later from the dams up river. So you are trying to implement a dam that is near people and this process seems more like a confrontation than a consultation. Why not put another dam nearer to the Bennett Dam (Page 10) and kept that area going rather than jump down here where we are losing arable land; effecting the water table and wildlife along the river, and affecting the livelihood of people along the river, and the loss of a wonderful tourism spot. You are telling us that you will spend \$6.6 billion on this project and there will be a large carbon footprint by burning instead of chipping the timber when you clear for the dam. The dam is so close to the City and noise, dust issues and I noticed on the Feedback information on consultations that no one was interested in low cost power but rather they were interested in local construction opportunities. Interest in low cost energy only got 27% and I would have thought that would have been higher on people's lists. I was surprised about how many people attended the public meetings. If you break it down and 29 meetings with 294 attended that comes down to an average of 10-people per meeting. My neighbors never heard anything about this meeting tonight and if there were 300-people out I would call that a public meeting. What is your definition of a stakeholder? Granted I am a stakeholder but as I look around the room I see more stakeholders - where is the public, where is the non-biased or biased public opinion? I don't expect an answer - I am just throwing that out there.

Page 18 Reservoir Considerations Table – Andrew Watson

Page 19 Impacts on Resources and Looking Ahead

There were no comments received.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

- Q: *Diane Culling:* So when the original cost estimate was developed for the project where you thinking of getting the rip rap from the Pine Pass?
- A: *Andrew Watson:* It (cost estimate) was based on concrete but we would prefer rip rap and we are looking for that now and trying to find a source within 10-kilometers of the dam.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Siobhan Jackson

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned – Siobhan Jackson

There were no comments received.

Page 24 – Land Use; Agriculture

- Q: *Mike Kroecher:* I understand that there is a potential for increased fog and that comes from BC Hydro that statement and I am concerned that when the crops are being harvested and there is increased fog that it could be disastrous. How will you mitigate that when the sun is not available because of increased fog? This is a really serious issue.
- A: *Siobhan Jackson:* We did raise this topic in round one. Relative to the local climate study we are initiating a study to understand if that would be the case and if we move to Stage 3 we will work with the agricultural community if that is the case in terms of success and productivity and look what at what would be the options for mitigation.
- Q: *Mike Kroecher:* How would you study that? Won't we only see the results after the dam is built?
- A: *Siobhan Jackson:* We will study that through an impact assessment by developing predicative models based on a current understanding of process, local climate and a collection of local empirical data and consultants are also looking at adjacent bodies of water to understand the relationship of water temperature and air temperature – that is the general process. The process is through modeling and predicting effects and monitoring after to understand if the effects came about.
- Q: *Chris Wagner:* On Page 23 (Discussion Guide), socio-economic studies - I have a lot of questions around base line data collection and pre-existing information – where are you sourcing, what collection methods are being used in the studies and what are they looking at? Sourcing data and what is included?
- A: *Siobhan Jackson:* The work started in July and we are fairly early on at this stage however we are looking for an understanding of existing socio-economic sources such as: census data, the Fort St. John Official Community Plan, the land management plan for the area and all planning

documents and data sources for the region. We will be scouring available data bases for current pre-existing information as to reflect the current human environment as it relates to the project. Land use analysis is similar type work – collecting resource and current land use work, tenure information, agricultural land reserve data base in terms of what is ALR land. At this stage none of this information is BC Hydro primary work – it is the information on everything that goes into the region at this point.

Q: *Chris Wagner:* So this is a literature review?

A: *Siobhan Jackson:* It is more like a data pull and putting in data bases we would need – much more than a literature review.

Q: *Oliver Mott:* With reference to Page 23 (Discussion Guide) – who is doing the studies, do you contract out and if so; is the information reported directly to you and is it available to the public? I would be interested in the reports and they could come and talk to the public in Fort St. John. Who conducts the studies and will there be an opportunity for public information?

A: *Siobhan Jackson:* Who is doing the studies? All the work will be done by external consultants. Not academics per se although the academic profession can respond to the bid. Second answer: we have committed to making final reports of the work of those consultants available to the public – BC Hydro will finalize the reports and make them available.

Q: *Oliver Mott:* People who conduct the studies should present their finding.

A: *Siobhan Jackson:* Some of the reports are on the web site and as the reports are finalized they will become available.

Q: *Colleen Wilson:* I was wondering if people are concerned about fog and making it hard to farm.

A: *Siobhan Jackson:* The concern is more around fog and timing as it would relates to agricultural production.

Q: *Colleen Wilson:* Has that happened around the Bennett Dam?

A: *Siobhan Jackson:* Fog is caused by cold air temperature over a body of water.

C: *Colleen Wilson:* I know what causes fog but don't we have an example with Grand Prairie – has it changed and made farming impossible for the people around Hudson Hope from having the dam and if not why do we think it is going to change? Is it going to flood that much land that it is going to change the climate that much?

Q: *Stan Gladysz:* I want to follow up on my previous comments because if the dam is lowered to the level I suggested then the farm land would not be affected because hydro already owns most of the land and Highway 27 won't be as affected. Lower the dam and it won't affect that many more people and if you need more hydro build a dam near the Alberta border.

- Q: *Rerena Hofmann:* With respect to studies and the availability of getting more information than a list of topics my concern is similar to Oliver's (Mott), in Stage 1 we said we wanted more information relating to the studies, we said that in Stage 1 and I am sure it was said in the pre-consultation. So there are interim reports that are coming out of these studies and why isn't that being shared with the public? Why are you giving us outlines and one page summaries that tell us nothing?
- A: *Siobhan Jackson:* There is sequencing involved and we heard the request, earlier this year, and the study program is underway and the people writing the reports are still in the field doing the field work and there has been no opportunity to complete the data bases, to review the data bases and prepare the interim results because the work is still underway. Some of the reports are available. As more reports become available we will release them as they are completed.
- A: *Rerena Hofmann:* Preliminary data collection research with design parameters and data collection manuals - why aren't we seeing that and why aren't we being consulted on that? If there is a full commitment to research and a full understanding to the research and the people you have hired and that is right there from the start rather than getting people asking about the end report. It is all backwards. You heard this in pre-consultation as well.
- A: *Siobhan Jackson:* We heard that comment earlier today and BC Hydro will take that comment under consideration in terms of the ability to put out more information on the methodologies.
- Q: *Rick Koechl:* Agriculture: assuming the height of the dam is as projected and includes materials sourced from agricultural land - how much agricultural land will be lost in terms of hectares?
- A: *Siobhan Jackson:* I don't have number available because we haven't completed the assessment but we will make that available when we can. Historical studies are available in hard copy at the local consultation office and on the website.
- Q: *Rick Koechl:* What if the ALR³ says no, what will BC Hydro do?
- A: *Siobhan Jackson:* BC Hydro is not assuming that any of the regulatory processes will go ahead. The assessments will form part of the outcomes of Stage 3.
- Q: *Sharon Kirschbaun:* You have partly answered my question and I would point out that gathering data is just information if it is not used. My question is how recent is that information? What about accountability, how many reports and how much feedback do you need to get before you say we are not going through with the project? I see you as a provincial body and you are the same as the oil people coming on our land and saying you don't have mineral rights and taking the resource right out

³ Agricultural Land Commission

from under us. Is there a point where BC Hydro will say the project is not feasible - not ever?

- A: *Dave Conway:* We are looking at work that is based on a comprehensive understanding of the project and our requirement is to provide a report on the public consultation, technical studies and updated financial components and then the decision to move forward will be up to government. Stage 3 is the regulatory stage.
- C: *Sharon Kirschbaun:* We don't get cheap gas up here and it is the same for BC Hydro because all they are doing is providing energy for the south and the United States and we don't get cheap energy up here.

Page 25 – Forestry; Mining and Oil and Oil and Gas – Siobhan Jackson
Page 26 – Potential Land Use Effects
Page 27 – Information Item – Transmission Lines

There were no further comments.

First Nations Negotiations - Jack Weisgerber

- When we started the process we determined, in addition to consultation, that we had a particular responsibility to the First Nations and that there was treaty rights with specific obligations for the proponent BC Hydro and the Crown to consult with First Nations.
- I work at that and we are working with the Treaty 8 First Nations talking about many of the things we are talking about tonight.
- We are also monitoring water flows for issues like temperature and turbidity on the river downstream of the dam and we will be talking with First Nations in Alberta, along the Peace water shed and along the Slave River in the Northwest Territories, to ensure they understand any changes to the river and how that may affect them.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Dave Conway

Thank you for coming out and we appreciate your comments, concerns, input and feedback. While we need the Feedback Form returned by November 30th there are many opportunities to provide your feedback.

DISCUSSION:

- Q: *Blane Meek:* Say this thing is dead at the end of Round 2 or Round 3; do we have your commitment that you will lift the flood zone and sell back the land to the people?
- A: *Dave Conway:* I can't provide that commitment – there is a flood reserve on it.
- Q: *Blane Meek:* So this could come back in 25-years?

A: *Dave Conway:* It is a potential resource option and we have spoken to that this evening and we don't know where we will be at the end of Stage 2 and we can't commit on behalf of government.

Q: *Chris Wagner:* What is the remainder of the consultation schedule?

A: *Facilitator:* We brought a one-pager, outlining the consultation schedule, with us and Page 1 of the Discussion Guide outlines the open houses. It is also posted on the website. Information about the consultation schedule will be sent out to about 25,000 households. There were nearly 400-people contacted on the telephone.

Q: *Eliza Stanford:* When is the end of Round 2?

A: *Facilitator:* November 30th for the consultation.

A: *Dave Conway:* Stage 2 will end in the fall and winter of 2009 and then government will make a decision.

Q: *Eliza Stanford:* So that is a year from now and all the studies will be completed?

A: *Siobhan Jackson:* Our commitment is that all final reports will be released at the end of stage 2 if they (reports) are finished sooner then they will be released.

4. Feedback Forms

Members of the small group multi-stakeholder meeting were encouraged to complete the Site C Project Definition Consultation Round 2 Feedback Forms.

5. Closure

The small group multi-stakeholder meeting was closed at 9:00 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

NORTH PEACE ECONOMIC DEVELOPMENT COMMISSION MEETING

October 6, 2008

Notes from a North Peace Economic Development Commission meeting held with representatives of the Site C Project Team on October 6, 2008 at the Fort St. John, Quality Inn Northern Grand, Fort St. John, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Andrew Watson, BC Hydro

STAKEHOLDERS: Tammy Danshin, Executive Director
Dan Davies, Chair North Peace Economic Development
Commission and Councillor Fort S. John

The meeting was called to order at 2:00 p.m.

KEY THEMES:

- Participants were interested in the energy options BC Hydro is considering under the *Integrated Energy Plan* and the *Long-Term Acquisition Plan* and if BC Hydro is close to meeting the projected demand for the 20-year planning period.
- Participants were interested in potential opportunities for local contractors, particularly regarding reservoir preparation.
- Participants were interested in potential impacts on bees or plants that may be important to the region. Members of the North Peace Economic Development Commission said that 30% of B.C.'s honey production is done in the North Peace region.
- Participants asked how communities will be able to prepare for a decision to proceed with Site C. A suggestion to develop an interagency advisory committee was made.

-
1. **Welcome and Introduction of the BC Hydro Project Team and Stakeholders**
Round table self-introductions were undertaken.

2. **The Consultation Program – Facilitator**

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bchydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Introduction and Welcome – Dave Conway

Thank you for coming, we really appreciate it. We are holding about 20 multi-stakeholder meetings and what we are doing differently this time is now we are combining groups so that people get a bit of a different perspective from the one they might hold.

Page 1 – Site C Background – Dave Conway

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

Q: *Tammy Danshin:* So what is the status of the call for energy because I have heard it is a long time before they actually come on stream is that true?

A: *Dave Conway:* You would need to talk to the proponents as to timing, it is a lengthy process but the last I heard was the Bear Mountain Project was to come on line in 2009.

Q: *Tammy Danshin:* I heard that Dokie is a long way off?

A: *Dave Conway:* Again, you would have to talk to the proponents but I have heard Dokie is moving forward and they have already purchased the turbines in.

- C: *Siobhan Jackson:* There are projects around the province and some of those projects are coming on line since the 2003 call.
- Q: *Tammy Danshin:* When you say Dokie and Bear Mountain those are two confirmed projects that have a set date for coming on line?
- A: *Dave Conway:* Yes, that is correct they have energy purchase agreement with BC Hydro.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

- Q: *Dan Davies:* This list doesn't include the impacts at the construction stage, for example social impacts?
- A: *Siobhan Jackson:* This is a quick list and impacts will be assessed in detail in Stage 3 if the project were to move to that stage. Generally, we are doing preliminary work right now for the environmental assessment and then we will work with them and under their direction during the focus of Stage 3.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

There were no comments received.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Dave Conway

- C: *Tammy Danshin:* I think that energy options are important to discuss because we are getting asked about that and that was why I raised the question about Bear Mountain earlier. So to sum up: energy options, impacts; and, how will the region prepare and how much lead time is needed to prepare?
- C: *Dan Davies:* A big concern for me, whether I am wearing my city hat or my economic development hat, is if the call is made and it is a go (Site C) what kind of things can we do to prepare for that moment? The grade is going to go straight up the hill because there could be catastrophic outcomes to deal with at the close of the project. I know that BC Hydro has done big projects before but where is the province at with these (alternate energy) projects? Are we filling the gap?
- A: *Facilitator:* Observed that was a super frame and Dave (Conway) can now move to Page 8 and review the resource options table as it will likely answer some of your questions.

Page 8 – Resource Options Comparison – Dave Conway

There were no comments received.

Page 9 – BC Resource Options Comparison

Q: *Dan Davies:* One thing – I have never heard why nuclear is not an option because I think it is important and should be included in the list and maybe it could be included in the dark blue section. I know that this government doesn't want to consider it but it may be an option with another government, in power, in two to three years.

A: *Facilitator:* Yes, this is a thought for input.

C: *Tammy Danshin:* It is being considered in Alberta and it is not on the list.

A: *Dave Conway:* It is not an option under the Energy Plan and that question is better directed to government.

C: *Dan Davies:* That was good and did provide me with some of the information. The gap is the question.

A: *Siobhan Jackson:* The next call is for 500-gigawatt hours or the equivalent of almost a Site C.

A: *Dave Conway:* We have found a high attrition rate with the proponents (alternate independent power producers) and we are still seeing load growth and the thing we are planning for is where could the growth go, for example, electric cars – how it will change and by how much and are we making headway – yes. The problem is that a lot of energy is being added at a time of year when we have a lot of energy for example the spring freshet. We are looking to acquire firm energy.

A: *Facilitator:* This is what I believe your concern was: is BC Hydro planning thoroughly enough to address the demand gap 20-years out? The answer is yes through conservation, improving present facilities and the alternate energy calls - that is the purpose of a long term acquisition plan to ensure that British Columbia can meet its future power needs.

A: *Siobhan Jackson:* This is a diverse strategy and Site C has a long front end and a long back end and that is a different profile from the alternatives. Multiple irons in the fire lends to the planning strength.

Page 10 – Map of Peace River Country – Andrew Watson

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to (B)); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

Q: *Dan Davies:* I have driven that road to Chetwynd and taken the ice bridge across the Pine River and it's not a bad road - potentially a 30-minute drive but you are saying no plan for that? There would be less green house gases, if that road went in, for example.

A: *Andrew Watson:* We are exploring it but it is a regional planning consideration and we will collect the feedback up and have further discussions.

A: *Facilitator:* Site C project does not include that road connection but BC Hydro is interested in hearing feedback about that access.

C: *Tammy Danshin:* The Regional Transportation Advisory Committee is very active and they would want to comment on that. Vic Randall is the Chair. Note: follow up for Judy.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

There were no comments received.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Andrew Watson

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling – Andrew Watson

Q: *Tammy Danshin:* Will that clearing be under the management of BC Hydro or small contractors or First Nations?

A: *Andrew Watson:* That is a good question and I will answer it in the context of reviewing the table on Page 18. I would encourage you to read this and please provide feedback on any consideration we are missing.

Page 18 – Reservoir Preparation Considerations Table

Q: *Tammy Danshin:* Procurement opportunities would be something that we would really encourage. Who has access to the timber right now?

A: *Siobhan Jackson:* Tembec and Canfor are the two major forestry companies and there are private lands as well – so there is a mix. Almost none of the timbers we are talking about are in their ‘cut’ plans and although we haven’t run the numbers today historically it was considered uneconomical. This is about clearing an area that wasn’t in their ‘cut’ plans and we have to have discussions with them. We understand the forestry companies have planning horizons of 5 to 10 years and it is important to start discussions early on with them.

Page 19 – Impact on Resources; Looking Ahead

- C: *Tammy Danshin:* With respect to reservoir preparation one of the things we would like to see is local procurement opportunities.
- Q: *Dan Davies:* With respect to the landfill – what issues are there with that relative to the Peace River Regional District landfill; issues such as leaching and bank sloughing?
- A: *Andrew Watson:* We are looking at a reservoir rim study and stability will be looked at in that study. ‘Garbage Creek’ flows into the reservoir and we have another study that will be looking at that and possible leachate issues. So there will be two studies addressing the landfill.
- C: *Siobhan Jackson:* We believe the landfill is near capacity so there is a decision imminent in the regional about the landfill and solid waste disposal and the region has tabled that for the project - we have heard that concern from the staff level.
- C: *Tammy Danshin:* The wood waste can’t go in there.
- C: *Siobhan Jackson:* It is pretty common in the region to pile the wood waste and burn so that will be looked as one of the disposal options.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

There were no comments received.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Siobhan Jackson

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned

There were no comments received.

Page 24 – Land Use; Agriculture – Siobhan Jackson

- Q: *Dan Davies:* Are there any species unique to the Peace River Valley?
- A: *Siobhan Jackson:* Possibly plant variations but I don't know. One of the things is that when you start looking there is often the chance of finding something although it may not be necessarily unique to the region but you find things when you shine the spotlight - the more you look the more you find.
- A: *Facilitator:* I think what I heard asked was: is there anything BC Hydro's knows about in the region that is unique?
- A: *Siobhan Jackson:* I would have to ask our wildlife specialist.
- Q: *Tammy Danshin:* What is your take on bees? I don't see anything on the list about bees and 30% of the province's honey production comes from this area and we keep hearing of the bee crisis.
- A: *Siobhan Jackson:* I can share a similar process with respect to garter snakes and we asked our wildlife eco-specialist to look at eco-mapping and habitat capability units and then we are adding a field survey to observe what is on the ground.
- C: *Tammy Danshin:* There is the Honey Place in Fort St. John and a bunch of independent bee producers – there are number of them. There is also a Peace Country Beekeepers Association that you can talk to and you can probably find that information out from the Ministry of Agriculture.
- C: *Dan Davies:* In response to your question about the list of studies, the list isn't really new but I can't even envision what it will look like in terms of impacts in housing, social services, protective services, health care, addiction treatments, etc. and this is a huge concern. That could hinder us in so many ways and this is our municipality that will be impacted. I want to see a plan on what is going to be set in place leading up to the announcement.
- A: *Facilitator:* We want to see the results of the studies and a plan to address it.
- A: *Siobhan Jackson:* For example, we are looking at school plans but that is good feedback for us. We will complete the studies in Stage 2 and in Stage 3 we will be looking at impact assessments and what the load/burden will be on the community. For example, growth plans for the community and the role of a temporary work place versus whether there would be a plan for future growth.
- C: *Facilitator:* If the government did decide to go to Stage 3 then that plan would be overseen by regulatory authorities and monitored.
- C: *Siobhan Jackson:* Diane has shown up and participated strongly in the technical advisory committees so we can gain an early understanding of what your community needs. The plan will be developed by talking to the local government in Taylor, Fort St. John and the Regional District. Fort

St. John is updating their OCP¹ and the Regional District is also updating their plans and it is going to take all of Stage 2 and moving into Stage 3 to work this out. We will focus on collecting the data, look at the off-sets and look at what mitigation needs to come into a plan. With respect to the historical plans they had data relative to services that would need to be put into place as well as a monitoring plan to maintain the service level.

- Q: *Tammy Danshin:* Was there money set aside to support the plan?
- A: *Andrew Watson:* Yes it was in the cost estimates as was monitoring and compensation costs to be factored in.
- C: *Tammy Danshin:* And that ties into Dan's earlier question because of the future impacts and there will be a lot of organizations involved to help mitigate the needs of the community.
- C: *Dan Davies:* I know that the next day after the announcement (Site C) there will be an immediate impact on the town with companies coming in etc.
- C: *Siobhan Jackson:* Just to capture the concern we have heard that local government (Fort St. John) won't have much time at the point the decision is made and that is a different take and I have heard that from local government and that sense of urgency is important to capture.
- C: *Dave Conway:* In the earlier consultation Fort St. John said that they needed as much preparation time as possible for planning.
- C: *Tammy Danshin:* That concern also includes how the community organizations work together, for example Northern Health and Ministry of Transportation and other community organizations that are at arms' length from the project – I am just throwing this out for thought.
- A: *Siobhan Jackson:* There is a technical advisory committee process, which has got different topics and there is one called community services and infrastructure and one called land use and resources and another called recreation and tourism and others and they are cross-agency and the dialogue will feed into that perspective as well because everyone will be hearing all of the concerns around the table. For example, we are in the room with the Ministry of Transportation listening to the concerns that local government might have about access to the bridge. That should address your concerns.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

There were no comments received.

¹ Official Community Plan

Page 27 – Information Item – Transmission Lines

- Q: *Dan Davies:* Are there any oil and gas reserves in the flooded area?
A: *Siobhan Jackson:* I don't know but that is one of the studies we will do – collect the tenure information but I suspect there isn't because the land has been held under the flood reserve.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Dave Conway

There were no comments received.

FINAL DISCUSSION:

- Q: *Dan Davies:* How much are we purchasing – imports of electricity?
A: *Dave Conway:* About 10% -15% net and last year we were a net exporter because it was such a good water year last year. People make the assumption that everything is running all the time and that there are no constraints on the system but that is not correct as there are constraints on the system and the equipment is getting older and breaking down more.
C: *Tammy Danshin:* If you want the North Peace Economic Development Commission to sit on the technical advisory committees we would be happy to.
A: *Siobhan Jackson:* At the moment we have been focusing on government and First Nations, we are trying to get health and the school districts involved but at the moment we are working through the provincial realm. There are many topics and there is an information sheet available regarding that.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 5:00 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

FORT ST. JOHN MULTI-STAKEHOLDER MEETING

October 6, 2008

Notes from a multi-stakeholder meeting held with representatives of the Site C Project Team on October 6, 2008 at the Quality Inn Northern Grand, Fort St. John, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Cam Matheson, BC Hydro
Andrew Watson, BC Hydro
Jack Weisgerber, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Roman Anthony
Renee Ardill
Arlene Boon
Ken Boon
Diane Culling
Ruth Ann Darnall
Robert L. Doefl
Brian Dyck
Ken Forest
Eng Hong
Kirk Grimes
Julia Karabury
Mike King
Stephen Kowalsky
Andy Larstone
Julie Vander Linden
Carla London
Joan Low
Annie Madden
Karen McKean
Justin McKnight
Oliver Mott
Pamela den Ouden
Nelly Rodriquez
Steve Roe
Brian Ruddell

John Scholten
Neale Skauge
Jim Wassing

The meeting was called to order at 6:30 p.m.

KEY THEMES:

- Participants were interested in seeing the results of BC Hydro's baseline environmental studies.
 - Participants were divided regarding the potential benefits of public access to the powerhouse bridge.
 - Participants expressed continued interest in alternatives to Site C.
 - Participants asked BC Hydro to consider free power for the Peace River region as a potential legacy benefit.
-

1. Welcome and Introduction of the BC Hydro Project Team

Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

At this point the meeting was interrupted by a protest for a period of approximately 5 minutes. The protestors stated they did not support the Site C project.

3. DISCUSSION GUIDE

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

Page 2 – Environmental Assessment and Other Regulatory Processes

Q: *Ruth Ann Darnall:* Is this the only consultation in Stage 2 and does it end at the end of this year?

A: *Dave Conway:* There were three rounds of consultation: pre-consultation, then the first round then this round which will end on November 30th.

Q: *Ruth Ann Darnall:* Will we see the information related to the studies?

A: *Siobhan Jackson:* The work that is currently underway is due to be reported out at the end of Stage 2. These studies involved baseline studies to determine the existing environment and if the project moves to Stage 3 those studies will feed into Stage 3. In Stage 3 there would be extensive consultation as outlined and prescribed in an environmental assessment review.

Q: *Ruth Ann Darnall:* When will we see it (completed studies)?

A: *Siobhan Jackson:* Studies will be released to the public at the end of Stage 2 or earlier if they are available.

Q: *Ruth Ann Darnall:* Will the studies be peer reviewed?

A: *Siobhan Jackson:* Some of the studies will have an external review and there will be some internal review but ultimately there will be a complete review during the environmental assessment stage. CERA¹ and EAO² will review the studies as part of the Stage 3 regulatory process.

C: *Ruth Ann Darnall:* I understand that the EAO can hardly keep up with their work now so I am not sure how much of a review will be done. Perhaps some of the money being spent here should be spent to help the EAO with personnel.

Q: *Renee Ardill:* Where will we be able to review the studies?

A: *Siobhan Jackson:* On the BC Hydro web site and at the community consultation office here in Fort St. John - there will be a complete set of binders in the community consultation office.

Q: *Joan Low:* So if we had visited the community consultation office before this meeting we would have been able to inform ourselves in advance with, for example, the Discussion Guide?

A: *Facilitator:* Yes.

Q: *Joan Low:* When was that Discussion Guide available?

A: *Facilitator:* October 1, 2008.

¹ Canadian Environmental Review Agency

² BC Environmental Assessment Office

- Q: *Andy Larstone:* Currently the base line studies are looking at the current environment status and not identifying impacts. Is BC Hydro doing the studies?
- A: *Siobhan Jackson:* All the studies are being done by outside consultants.
- Q: *Andy Larstone:* So with respect to input, at Stage 3 will there be an opportunity for comment?
- A: *Siobhan Jackson:* All studies are being done by external consultants and the base line studies are being informed for potential models that will feed into the modeling for an effects assessment. For example, with respect to GHG³ most of the work is to develop a qualitative model however completion of the model will be done at Stage 3. On Page 2, of the Discussion Guide, regulatory processes are described there and I would encourage you to look them up on line because there are some very good reports.
- Q: *Andy Larstone:* Is the GHG study being assessed for the construction stage?
- A: *Siobhan Jackson:* A lifecycle analysis will be undertaken.
- Q: *Andy Larstone:* What about conservation? Will that feed into the model?
- A: *Facilitator:* That will be covered in the next section of the presentations as we move along.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

- Q: *Ken Forest:* Going back to Page 3 (Discussion Guide) you have got under hydro assets commentary about the load on the coldest day of the year and yet on October 2nd I was listening to the CBC news and the Premier said: “we have to think of our water resources as a major economic resource”, now that sounds like a problem to me. Are you looking at this dam to meet BC energy needs or to partly or greatly as a profit source to generate revenue?
- A: *Dave Conway:* We have during the coldest day of the year, last year for example, and remember that some of the available energy is not integrated and if all of the facilities are working and there are no constraints on the system particularly in Peace River where there are controlled flows; as a result of all of that, there are periods where we can’t meet our domestic energy needs and we have to import. However, there may be other times when we have a surplus and we export.
- C: *Cam Matheson:* If you are asking if Site C is for provincial needs or for export, in the context of the long term plan it is only for domestic need.

³ Greenhouse gases

- Q: *Ken Boon:* How come California has just spent \$14-million on buying power?
- A: *Cam Matheson:* California has passed very stringent laws and is looking for clean renewable resources and they have done that independently and it is not up to BC to supply California with clean renewable resources.
- Q: *Ken Forest:* I understand about surplus and about what you said being only for domestic needs but I still don't understand the Premier's comment about the "major economic resource" and he is talking about this valley and he was saying that in the context of this river and this dam.
- A: *Cam Matheson:* I can't speak for him and I don't think that we know. It could have been meant in the context of the electrical system for the province.
- Q: *Ken Forest:* In light of the unsettled conditions in the world have you discussed the impact a recession would have on the dam (proposed Site C)?
- A: *Cam Matheson:* At BC Hydro, in terms of the long term plan, we look at energy demand in the Province of BC and provide a 20-year forecast and we are just forecasting that right now.
- Q: *Ken Forest:* This is one of the biggest projects in BC right now and in light of what is happening on world markets and the possibility of a recession have you considered putting this on hold?
- A: *Cam Matheson:* I will move to my section and provide my answer.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

This section was not presented.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Cam Matheson

Page 8 – Resource Options Comparison

Page 9 – BC Resource Options Comparison

I wanted to talk about Site C in the context of planning and how to meet our customers' needs. We have to forecast demand and it fluctuates with economic conditions and it changes and ebbs and flows but the forecasting of demand is the basis of all the plans we develop. If BC were to enter into a recession we would have to adjust the forecast. Remember that recessions last for periods of time and then the economy comes back and growth continues. Even if, for a period of time a recession took the demand down it would come back up and we could see growth - if that occurred, we would adjust the plans to meet the demand. Second, we look at options to fill demand over 20-years. We look at constraints and for example we can't consider nuclear because the provincial government prohibits it

in the energy plan. Wave and tidal power, are another example, and it isn't there yet so it is not a commercially available option. So when you look at it, public policy is a constraint and then there is the commercial availability of the other options. Overall, we look at suites of options and then decide what is best for our system. In BC we have a hydro system which has tremendous attributes and we optimize the system every day for the benefit of our ratepayers. The other two jurisdictions with low rates that run large hydro are Manitoba and Quebec. We have to look at the system we have when we consider the options that are available. Then a resource options report is developed and we develop that in consultation with independent power producers and we ask them for the characteristics of each energy type and each unit of energy and then we look at the option in terms of the base portfolio and what makes the most sense for our system. We look at cost and reliability and then we develop the portfolio and eventually we land on a series of choices that goes into a long term acquisition plan that we take to the regulator, the British Columbia Utilities Commission. Then we go through evidential hearings and if the plan is supported by the Commission off we go.

DISCUSSION:

- C: *Diane Culling:* The Scandinavian countries have the highest taxes and the highest standard of living in the world and your discussion of rates is not valid – we are squandering electricity because of our low rates and at the same time we are going to destroy land, expropriate land and flood farm land – that is a fallacy because there is a high cost.
- A: *Cam Matheson:* I don't disagree but one of our key mandates is to keep the rates as low as possible - any project will have an environmental impact.
- Q: *Diane Culling:* You are at a table where people will lose their land. Canadian business has identified geo-thermal and said that BC Hydro has identified 16 sites and of those sites 6 are identified as having 100% capacity or about 1070-megawatts of power. So here is a quote: “geo-thermal has been slow to catch on because BC has relied on cheap hydro power for decades”. There is disconnect around what you are saying and yet you leave geo-thermal off the table?
- A: *Cam Matheson:* The Provincial Government sets out the broad energy policy and in 2002 it set policy that BC Hydro will no longer build the system except for large hydro. So that became the touchstone around our energy plan. We will run a procurement process and buy energy from that community and we will look at low-cost energy. In 2007 the second energy plan was released and it said that we must conserve 50% of new energy needs by 2020 and that we must become self-sufficient by 2016 and finally that we must run a 90% clean and renewable energy system in the Province. There is a large potential for geo-thermal but it tends to be on the end of the expensive end of the system. We put out a (energy) call and if you bid out a cost-efficient proposal we will take it.

- Q: *Diane Culling:* In 2008 the Post said: “Currently we are seeing more money get into the space of geo-thermal than we have projects available”. Geo-thermal companies outperform on the stock market. I understand it is the BC Energy Plan and government policy but BC Hydro needs to change its mandate to consider it. Geo-thermal is a benign form of energy and this makes me angry – we have the answer and we don’t have an energy issue rather we have a policy issue and BC Hydro needs to get its’ mandate changed – how do we do that?
- A: *Cam Matheson:* I am ill-advised to try and say how provincial policy can be changed – that is not our role. We take our guidelines and try and do the best we can based on what makes sense and what is cost-efficient. Plans are highly contested when they go to the regulator and for example, forestry companies complain, if more resources are added in, because they can’t pay more and still operate and all we can do is to respond to public policy.
- Q: *Diane Culling:* What is the cost of kilowatt hour to develop Site C?
- A: *Cam Matheson:* The range is on Page 8 (\$50-\$100 megawatts).
- Q: *Diane Culling:* So the 2002 Energy Report was based on small plants and yet your table estimates that there are higher costs for geo-thermal?
- A: *Cam Matheson:* That was in 2002 and those figures are out of date now.
- Q: *Julie Vander Linden:* I think you hit the nail on head - we have the ability to sell power and another hydro facility facilitates that. Every time we import it is because it is good financial sense. Wind farms are another good thing and California is building them because we are building another dam.
- A: *Cam Matheson:* California is absolutely looking out for their own interests. We optimize every day by storing when prices are low then we generate into the market when prices are high and sell. Does Site C become surplus power? No.
- C: *Julie Vander Linden:* Site C allows us to sell power to the States.
- A: *Cam Matheson:* No, BC Hydro has become a net importer and the Provincial Government has said we must become energy self-sufficient by 2016. We are simply optimizing the system.
- Q: *Julie Vander Linden:* What about Burrard Thermal because it hardly ever runs?
- A: *Cam Matheson:* Demand fluctuates as well and in the winter time the system runs at capacity.
- Q: *Ken Boon:* One thing about the BC Energy Plan is that it has a surplus around domestic need so we will always have a surplus to export. Is that not correct?
- A: *Cam Matheson:* It is not really correct in the way you say it. All energy systems have a built-in buffer and it is always there and if there was a major outage there has to be enough juice in the system so that we don’t

need rolling blackouts and that is 14% in our system. We have dropped below 14% for the past years and that is our situation.

Q: *Andy Larstone:* In the past 20-years the flood reserve was lifted from Site E and Site C was removed from the 20-year plan and there was a vast conservation potential that was untapped at the time. Suddenly Site C is back in the plan – what happened?

A: *Cam Matheson:* I wasn't at hydro at the time however by the time the modern hydro system was complete the system was in a massive surplus situation in terms of capacity and was in that state for about 24-years. Site C was shelved because it wasn't needed. Now in 2004 we determined that we needed to add to the system to enjoy the same capacity.

Q: *Andy Larstone:* What happened in 2004 – was there some other demand?

A: *Cam Matheson:* Site C isn't as big as you think it is – in size it is 5th or 6th in the Province and there was 20-years of load growth and it was the combination of those two things that influenced looking at Site C again. The bottom line in our system is that we have to add more generating resources and Site C must be looked at. When you say it disappeared I wasn't here but our current 20-year plan is keeping the 'optionality' open – we aren't saying that it will be built that is a decision that will be taken at a later date.

Q: *Renee Ardill:* You are wasting a lot of money over something that is not being built. In past meetings, I still don't understand why, if you are not building it, why are you going through all this fuss and waste of money when you could put it toward something better? I still think you guys have decided what you are doing.

A: *Cam Matheson:* Bottom line is that there are a couple of parts and it is difficult to build large generating plants of any nature. 'Optionality' is what this is about and we need to look at the support from communities in the area and First Nations and without the leg work we are doing now - we need to do the background work to understand the lay of the land.

Page 10 – Map of Peace River Country – Andrew Watson

Page 11 – Powerhouse Access Bridge and Associated Access Roads

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

C: *Ken Boon:* Do you want answers to that right now? My comment is that I don't want to see it but I will put my reasons in writing.

- A: *Facilitator:* Thank you and please get that feedback back to us by the end of the consultation, November 30, 2008.
- C: *Diane Culling:* The flood zone will alienate the ungulates that live in the area and there will be a significant impact on them because the road will allow greater access for poachers. From a wildlife perspective this is not good. You can call this a regional decision but it is putting onto the table a proposal that pits community against community and this road would kill Hudson Hope and you are creating discord in the region.
- C: *Annie Madden:* I live on Jackfish Road and we would love to see the road go in because if there was a disaster we have no escape - we couldn't do it. It would be nice for a bridge to address emergencies because the hospital is not that large and it would also help us move our farming equipment around so that we are not running our vehicles up to Fort St. John. Think of the fuel that is wasted and the hours of extra travel.
- C: *Julie Vander Linden:* This is exactly how the process screws us over and people only want the dam because of access to Chetwynd – this is the carrot.
- C: *Ken Forest:* I really understand that and I am not in favor of the access going across but we could develop a permit system so those that are affected could get through.
- A: *Siobhan Jackson:* In the consultations we have heard no public access and some public access and that is the reason that this is being considered so early on in the process. This is not the basis of a current study but if it was to be seriously considered then it would be studied and we would look at, for example, GHG and pressure on communities. BC Hydro doesn't need access but in response to public enquiries we have been asked to put the topic on the table. There are many design considerations that would need to be taken into account and the feedback is really useful.
- C: *Kirk Grimes:* I am from the oil industry and to not even mention the road would be irresponsible. That road would save on commuting times for workers in the camps and I could go on and on. This is a huge bonus and we need it. We don't have a good solution right now and we need it for a shorter travel time and the benefits are not even measurable. Right now a worker could stay in camp and look at the lights of Fort St. John but not be able to travel there easily and this creates a hardship. This is big for the oil and gas industry - we really need the bridge.
- C: *John Scholten:* We had a bridge across the Pine River many years and the government could have done this years ago and why they haven't is anyone's guess. I think they wanted the dam access and this is a carrot.

- C: *Nelly Rodriquez:* I came here from Revelstoke where we lived for 13-years and my husband wanted to be here tonight but he is in Europe. With respect to wind power, it is very expensive. We have worked in different dams around the province and we moved here for Site C because we thought it was going to be built – I would love to see Site C being built.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

- C: *Andy Larstone:* In terms of other infrastructure improvements some of the best soil will be submerged and that soil is basically irreplaceable - how do you replace the food that could be grown on the Class 1 soil that is gone forever? I would suggest free power and heat for a large greenhouse assembly, right beside the dam, to replace the fruits and vegetables that could have been grown in that Class 1 soil. We aren't even beginning to see the potential of the soil because of the flood reserve. We need to start thinking locally and the food source is very important. This suggestion should be seriously entertained.
- C: *Roman Anthony:* We haven't been getting too many home grown tomatoes here. I think that the water is too valuable and in the future we could always drain the dam if more farmland is needed. Preserving water is critical and this is a source of water for irrigation and water is the resource and it is very important.
- C: *Diane Culling:* With respect to water storage capability and climate change, we already have upstream storage and if that was a valid point it would make more sense to dam other rivers. I think dams on rivers are ridiculous. We have downstream users and we have obligations to them.
- C: *Renee Ardill:* There were market farms in the valley in the 1960's and, for example, Larry Peterson grew potatoes until BC Hydro forced him out. BC Hydro has everything tied up and they have strangled the whole valley. People have land that may flood and the dam is going ahead and then it won't flood and the dam is not being built and the whole thing is off again and then on again. I will run my operation and if BC Hydro builds it then you will have to pay for my operations. This is ridiculous and Hudson Hope has just sat there and is afraid to do anything.
- Q: *Ken Forest:* How many families will be removed from the valley if the dam goes in?
- A: *Andrew Watson:* We are trying to get a handle on that through the studies and the historical work showed about 40; however, I don't have a number right now.

- Q: *Kirk Grimes:* With respect to Fort Nelson I heard there was a real shortage of power – will BC Hydro be building a transmission line to Fort Nelson?
- A: *Cam Matheson:* It is unclear and Fort Nelson is experiencing a boom particularly in Boom River and it is unclear how far that the developers will go and there isn't enough power up there to support additional development. Fort Nelson is connected with Alberta through agreements and we have an energy sharing agreement with them but that agreement won't support a large development. If it grew we would build a transmission line but it would need to be a huge development. So there are three options: extend the (transmission) grid, local generation or get Alberta to supply from their side and I am not sure how we would proceed.
- C: *Diane Culling:* With respect to energy needs in Fort Nelson and going back to the issue of geo-thermal - on the Province's geo-thermal map there is a hot spot there and if you are looking at that with respect to industry, hydro is not the only game in town.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Andrew Watson

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

Page 18 – Reservoir Preparation Considerations Table

Page 19 – Impact on Resources; Looking Ahead

- Q: *Steve Kowalsky:* With respect to timber rights – if the logging goes through, where does the profit go?
- A: *Siobhan Jackson:* One of the studies underway is to identify all the tenure rights - it would be a mix of timber and a mix of tenure.
- Q: *Steve Kowalsky:* Would the people who own the land that is flooded, would they get any compensation for the timber?
- A: *Siobhan Jackson:* We will take as consideration as we develop a future understanding.
- Q: *Ken Boon:* There is that new bridge down by our place and look at the 100-year history to this valley and everyone knows about the Ache Slide and everyone knows that a slide would generate a big wave hazardous to the dam. I am sure that there will be a lot more land slide issues. I see you out there studying and flying around in your helicopters but I don't see how you can creditably come forward here. And, that is my same comment for recreational activities because at an earlier meeting I heard you say that you may have to keep people off the reservoir for 6-years and when what happens, when 6-years passes, it is 6 more years. I just can't see how you can creditably say that.

- A: *Andrew Watson:* With respect to both slides that you mentioned and what the wave could look like the dam is being designed so there would be no overtopping waves and we are currently working on a wave impact line and we won't want to encourage people to enter areas where it could be hazardous. I don't recall that I said 6-years however debris management will be looked at and compared to actual performance and that will go over several years and there may some areas where it is possible access restrictions could be placed on longer. Safety is the top goal of BC Hydro and we would make ensure that it would be safe.
- C: *Ken Forest:* You said 6-10 years because I heard it and I wrote it down.
- Q: *Mike King:* How much Class 1 is being farmed now – actually farmed now because there is not much farming going on and you can't eat hay? As far as vegetables there are all sorts of things that could be grown in Taylor but are not happening because there is no money in it. What is actually being farmed, not the potential, because I thought it would take up more than it did when they put up the signs.
- A: *Siobhan Jackson:* It is 100 ha of Class 1 land and I am trying to confirm the data set and there is updating work that needs to be done and it may be 191 ha because some low bank terraces have been added in. Those numbers will have to be confirmed. In acres, I am not sure but it would be 2.2 times 191. The other part of your question is current use and we will be talking to people next year about actual use of the land. The ALR does look at capability and that is a different understanding.
- C: *Diane Culling:* First of all the general public has a hard time grasping a concept because input costs were too uncertain because of the flood reserve on Site C.
- Q: *Ken Boon:* You have got to watch Class 1 because we have land that is not Class 1 but would be if there was irrigation.
- A: *Siobhan Jackson:* Classification of land was a big issue in the past and those two numbers were sourced from the federal government. We need to work with the region and understand the capability of the land.
- C: *Renee Ardill:* Climatic conditions are different – there is a micro climate in the valley that allows you to grow crops that you cannot grow up top.
- C: *Arlene Boon:* For the record: Tell the public that BC Hydro does not own all the land in the valley.
- A: *Andrew Watson:* BC Hydro does not own all the land in the valley.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

Q: *Ken Forest:* If you found a resource on private land would you expropriate it?

A: *Andrew Watson:* The first thing we are doing is looking at air photos and to continue we would have to have discussions with land owners to look at their land.

Q: *Ken Boon:* Is the impervious material clay?

A: *Andrew Watson:* Till.

Q: *Mike Kowalsky:* With respect to the access road, primary access is coming off the end of the dump road and how will you deal with increased traffic because there is residential in the area – how will you deal with that in terms of upgrades, widening and enforcement?

A: *Andrew Watson:* When we understand the worker housing and materials a traffic management plan would have to be done in consultation with the residents and local government and mitigation and potential compensation would be looked at.

Q: *Mike Kowalsky:* What about the potential life of the dump - is it possible that the life of dump will be finished soon?

A: *Andrew Watson:* The dump has a limited life left, in the neighborhood of 3-years.

Q: *Diane Culling:* With respect to your requirement to upgrade MoT⁴ roads does BC Hydro absorb all the costs?

A: *Andrew Watson:* Yes, it is part of the project cost and items are in the current cost estimates for costs like that.

Q: *Kirk Grimes:* Going back to Page 12, will the road be asphalt or gravel?

A: *Andrew Watson:* Asphalt to the power house.

Q: *Neale Skauge:* Could BC Hydro put accurate markers on the road so that we can see where the new level of Site C would be or are the markers that are there now accurate?

A: *Andrew Watson:* Most of the markers are quite accurate but a couple of them are up to 7-meters inaccurate.

Q: *Diane Culling:* Which markers are out by 7-meters?

A: *Andrew Watson:* We can provide you with the answers.

⁴ Ministry of Transportation

- Q: *Kirk Grimes:* I was recently visiting the Yangtze River and would you entertain a lift for boats over the reservoir? There are inexpensive lifts and that would provide a lasting benefit to the region.
- A: *Siobhan Jackson:* One of the key acts is the Navigable Waters Act and it addresses access to boat traffic and understanding boat traffic and on the Three Gorges Dam in China it moves large freighters up and down the river system. We are engaging in discussions to understand that and it will be looked at.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies

Page 23 – Stage 2 Baseline studies underway or planned

- Q: *Ken Forest:* Are those studies taking into account the integrity of the animals on the Y2Y⁵.
- A: *Siobhan Jackson:* It is possible that we could do a genetic study later but we are engaging in a radio collar study now to understand their travel patterns.
- C: *Ken Forest:* She is saying they will monitor.
- A: *Siobhan Jackson:* It is a radio collar study and the decision-makers would be the EAO.
- Q: *Ken Forest:* One of the concerns of Y2Y is that will there be genetic diversity across the dam and it sounds like you might be getting enough information.
- A: *Siobhan Jackson:* We will work with Ministry of Environment on this.
- Q: *Ken Forest:* If you get the information would it make a difference?
- A: *Siobhan Jackson:* All the work will go into the EAO process and they will review in the context of everything at the time.
- C: *Oliver Mott:* In the context of everything and analyzing – is there anyone that is considering global context and degradation and the accelerating rate and impact on wildlife around the world and extinction of species. I view this with the most profound dismay with respect to the galloping rate of acceleration and the hundreds of thousands of years it took to create an environment and then in the blink of an eye you are destroying it.
- Q: *Steve Roe:* I would like to suggest that there is something disingenuous around your statements about the ultimate decision-makers. At the end of Stage 2, BC Hydro will make a recommendation and what you are doing is making out that BC Hydro is a neutral agency and that is not the case because at the end of Stage 2 you will be a recommendation.
- A: *Siobhan Jackson:* It is the role of BC Hydro to make a recommendation. We won't have completed an impact assessment and that work will be assessed in Stage 3. Rather we will have base line studies completed at

⁵ Yellow Head to Yukon

the end of Stage 2. Effects will be assessed in Stage 3 during the regulatory process.

Q: *Ken Boon:* With respect to the radio collar I can tell you I know that they swim the river and that there is genetic diversity now so how can you predict how the reservoir will impact them? Right across from us the land will all slough in.

A: *Siobhan Jackson:* We will work with wildlife specialists to build a model to predict that effect and we will look at water temperature, for example, and model that to see if the river is frozen and what effect that has - all the factors will be taken into account. The radio collar tracking will provide an understanding of their travel movements.

Q: *Andy Larstone:* Are there any species in the river that will not survive in a reservoir?

A: *Siobhan Jackson:* We will get back to you on this. Arctic grayling may not do that well.

Q: *Arlene Boon:* Are you going to go to Stage 3 for all the studies?

A: *Facilitator:* Baseline studies will be completed in Stage 2.

A: *Siobhan Jackson:* Stage 2 will have a lot of baseline studies and they may be completed into Stage 3. We are going out early with the work for Stage 3 and then we may have additional studies that will need to be done. At Stage 3 it is the regulatory stage.

Q: *Arlene Boon:* How many of the 76-studies will be done?

A: *Siobhan Jackson:* There is an information sheet, with estimated completion times, that is available at the back of the room. The reason we use the word 'estimation' is because we may have to add an additional year of study to some of the studies. We are also working with federal/provincial governments to review some of the work and asking for their input as to whether or not additional work is required. We will be engaging with many authorities to present the early work and then ask their opinion of what additional work needs to be done and the regulator has the right to ask for additional work. This is not a yes/no answer - some multi-year studies are required to properly assess.

C: *Diane Culling:* There has been a long history of fishery and wildlife studies and specific to fish the BC Ministry of Environment did a study on Bull Trout and found that they migrated as far as Clear River in Alberta and the Halfway River so there is a lot of understanding around that. This issue is enormously important on a continental scale level.

Page 24 – Land Use; Agriculture – Siobhan Jackson

Page 25 – Forestry; Mining and Oil and Oil and Gas

Page 26 – Potential Land Use Effects

Page 27 – Information Item – Transmission Lines

Q: *Mike Kowalsky:* What is the position of the First Nations and how are things going with the consultation with them? I don't see a lot of First Nations at the consultations.

A: *Jack Weisgerber:* It was decided to establish a parallel process, from the public consultation element, and that was a separate and distinct First Nations consultation process. There are treaty rights, constitutionally protected and we needed to focus on those issues with people that had an understanding of those issues. I am working with the Treaty 8 peoples and attempting to have discussions with First Nations all along the river regarding fish and water issues so they can understand what is happening in the river and we will be working with the five First Nations on the Slave River.

Q: *Mike Kowalsky:* Will we be able, as the public, to access the information and read about it?

A: *Jack Weisgerber:* There are elements of confidentiality however there will be an element of that report in the Stage 2 record.

Q: *Mike Kowalsky:* So there will be certain parts we will find in the reports and other parts in the paper when they announce.

A: *Jack Weisgerber:* Stage 2 will be a public document and any other considerations once concluded will be made public but not while under negotiations.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Dave Conway

Thank you for your feedback and the honesty you have shown. We would also like to see your feedback by November 30th.

FINAL DISCUSSION:

Q: *Andy Larstone:* Why doesn't BC Hydro build projects where the load is? It is not very efficient to build this far away from the load.

A: *Cam Matheson:* There is no large hydro on Vancouver Island or the lower mainland.

Q: *Andy Larstone:* What about the Fraser?

A: *Cam Matheson:* By the time the Fraser Canyon begins you are a long way outside of the lower mainland. The second answer is that long ago the provincial government embarked on a two river policy and Site C, on the

Peace River, is really the final installment of that. What you are finally seeing is the play out of past policy.

Q: *Diane Culling:* Given the fact that Bob Eldon (President of BC Hydro) has addressed the Vancouver Board of Trade and in your analysis will there be consideration of weighting of communities and stakeholders that reside in the region and have impacts versus the Vancouver Board of Trade that has no impacts?

A: *Dave Conway:* All information and feedback will be considered. A report goes in with a recommendation and there will be no particular weighting.

Q: *Kirk Grimes:* Once the dams are done, how much says in the Peace – what is the load of the Peace country?

A: *Cam Matheson:* It is miniscule.

Q: *Kirk Grimes:* We have the impacts so why are we not getting free power?

A: *Dave Conway:* That is one of the things that have been looked at in, in the past, the legacy benefit.

C: *Kirk Grimes:* There should be a greater benefit and maybe free power should be looked at.

Q: *Mike King:* Where is hydro North America-wide regarding ratepayers?

A: *Cam Matheson:* We are the third lowest in North America. There are a group of four companies that roughly have the same rates: Quebec Manitoba, Saskatchewan and Seattle WA.

Q: *Renee Ardill:* Where is Danielle?

A: *Dave Conway:* She was appointed on Sept 29th and still coming up to speed on the project.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 9:02 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

TAYLOR LOCAL GOVERNMENT MEETING

October 6, 2008

Notes from a local government meeting held with representatives of the Site C Project Team on October 6, 2008 at the Taylor Community Hall, Back Office, Taylor, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Kate O'Neil, BC Hydro
Kyle Robertson, BC Hydro
Andrew Watson, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: George Barber, Councillor
Everett Clark, Councillor
Glen Cross, Manager, Lone Wolf Golf Course
Gordon Davies, Superintendent of Public Works
Keir Gervais, District of Taylor
Troy Gould, Director of Parks
Charlotte McLeod, Director of Finance
Betty Ponto, Councillor

The meeting was called to order at 12-noon.

KEY THEMES:

- Participants were interested in opportunities for Taylor related to local labour and worker housing.
- Participants were interested in further discussion with BC Hydro concerning the potential for additional municipal services that may be required to manage an increased population during construction if Site C were to proceed.
- Participants wanted details regarding the safety of Taylor if Site C were built and suffered a breach.

-
- 1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders**
Round table self-introductions were undertaken.

2. **The Consultation Program – Facilitator**

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

Page 2 – Environmental Assessment and Other Regulatory Processes

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

C: Everett Clark: When you talk about fog, the other morning we left Taylor and there was no fog and we drove to Fort St. John and it was fogged all way from the Taylor Hill to Fort St. John.

Q: *George Barber:* Is there a possibility of viewing the site (Site C) because I would like to see what I am talking about?

A: *Facilitator:* We will look into that and get back to you.

Q: *George Barber:* Is there a chance this, Site C, will be an election issue and if so could it be announced sooner?

A: *Dave Conway:* Our mandate is to report out in the fall of 2009 and a lot of the work we are going wouldn’t be done sooner and would not be ready to be reported out on in May 2009 when the provincial election is going to be held.

- Q: *Everett Clark:* You are going to do all that work without knowing whether the dam will go ahead because I would see that as a terrible waste.
- A: *Andrew Watson:* We are working on major design issues, risk around construction materials and geo-technical materials and that will be all wrapped into the Stage 2 cost estimate and a lot of other studies will be updated.
- Q: *Everett Clark:* Where do you get your instructions from?
- A: *Andrew Watson:* The BC Government asked BC Hydro to look at this and we are following the Energy Plan - the decision to go to the next stage will be made by government.
- Q: *Betty Ponto:* You are working for BC Hydro aren't you?
- A: *Andrew Watson:* Yes, I work for BC Hydro.
- C: *Siobhan Jackson:* A lot of baseline studies will be undertaken and I will talk about it later.
- C: *Keir Gervais:* With respect to the pine beetle, this is the first I have heard about that as a bio-mass option and this needs to be made more publicly aware that those options are being pursued – the public needs to know more about that.
- A: *Dave Conway:* I suspect it is where you are living because if you were in Nechako or Bulkley Valley it is a prime factor and a major issue. We refer to the bio-mass options this time when we go out on the energy call.
- Q: *Keir Gervais:* I was shocked to see the amount of pine beetle in the Tumbler Ridge area and while it may be smaller than the pine beetle kill in the Prince George area it is still a large thing to see and when you drive down the road and see the hundreds of thousands of logs in piles it still hits you – we have got it, in the North Peace.
- A: *Dave Conway:* The bio-mass call is for more than just pine beetle and you should hearing something about the call in late November.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Dave Conway

- Q: *Keir Gervais:* To Siobhan (Jackson) - What is the caveat that goes with the planning life?
- A: *Siobhan Jackson:* Project life is paid off in 70-years but maintenance will be kept up on and the dam will go on.
- C: *Keir Gervais:* This is important because some people might think that it is only 70-years.
- A: *Andrew Watson:* The dam's life span is indefinite.

Page 8 – Resource Options Comparison – Dave Conway

- C: *Betty Ponto:* I suggest that the material (Discussion Guide) be sent out ahead of time so that people can review it ahead of time.

A: *Facilitator:* Yes and I thought it had been emailed to the Clerk but it is not an excuse and it is worthwhile to note that the consultation will go on for two months and the same material will be used throughout.

Page 9 – BC Resource Options Comparison – Dave Conway

There were no comments received.

Page 10 – Map of Peace River Country – Andrew Watson

Page 11 – Powerhouse Access Bridge and Associated Access Roads

Q: *Troy Gould:* Have you been approached by any of the oil companies for access?

A: *Andrew Watson:* No, not the oil companies but we have heard from the forestry companies.

C: *Troy Gould:* I have always had to be flown in there and if the bridge went in it would have a big impact for Chetwynd and you could get there in maybe 20-minutes.

C: *Facilitator:* So if I could reinforce with Council - what Hydro is doing is looking is looking for questions and comments and the comments, we have received so far, have been pro and con and one of the things BC Hydro is after, is what are the reservations, would a connection be a good thing or not or do you have concerns that it could open up the south side too much? Particularly for local government this is important for you to weigh in on.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E – Andrew Watson

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

Q: *Charlotte McLeod:* So are we worried that people would stop going through to Hudson Hope?

A: *Facilitator:* We need to be careful here and it would not be correct to characterize one community for or against it at this point.

Q: *George Barber:* During construction will the industrial roads be radio controlled?

A: *Andrew Watson:* Yes during construction.

Q: *Keir Gervais:* I am missing this - these roads lead to nowhere, what is the community benefit of a road to get to the powerhouse?

A: *Andrew Watson:* If the road was left open to the public and enough people used the industrial roads would it then force some time of upgrading - you are right though about it right now.

- Q: *Keir Gervais:* I have only been here for about 3-years and one of the first things I heard, in relation to Site C, was that the highway between Fort St. John and Hudson Hope would be no more and that is not the case but here Troy's (Gould) comment that it would only be 20 or 35 minutes to Chetwynd - I don't see that happening here nor do I see the possibility of it happening through this project.
- A: *Andrew Watson:* If the straight road was continued then that would be the case however we are doing work down at the dam site and it is not a straight road and it takes a while to get there on the industrial roads that have developed incrementally as the gas/oil sites opened up.
- Q: *Keir Gervais:* So, no greater purpose that if you feel like jumping in the car on a Sunday and driving to the power house?
- A: *Facilitator:* No, it is actually more than that because if there wasn't public access at all then MoT¹ wouldn't entertain public access on the roads but if it there was open access then MoT would have future considerations. So that is why it is important to make your views known.
- C: *Keir Gervais:* So if I were to say I am in favor of believing in a future opportunity for the road to Chetwynd, I should say that on the Feedback Form.
- A: *Facilitator:* That is correct.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

There were no comments.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Andrew Watson

- Q: *Keir Gervais:* Page 32, question 4(b) - I would expect that you have made a decision that you will do all of them? Put your best foot forward.
- A: *Andrew Watson:* Yes, we would expect that however some of them have competing interests but that is a very good point. There is a whole number of issues around balance and that is really what this section is all about.
- C: *Siobhan Jackson:* For example, do we pile all the cleared wood in the nearest location and burn because there is trade-offs associated with that and there will be other factors including distance and cost and it gets complicated trying to get the balance.
- A: *Facilitator:* We heard a lot in the first round of consultation around increasing access and the earlier the project team hears that the better.

¹ Ministry of Transportation

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling – Andrew Watson

Page 18 – Reservoir Preparation Considerations Table

Page 19 – Impact on Resources; Looking Ahead

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

- Q: *Everett Clark:* If the dam broke how long for the water to get to Taylor?
- A: *Andrew Watson:* It is not going to break – dam builders are ultra-conservative and we will undertake inundation breach modeling and that will be done for this facility. We will look at this in Stage 3 and the assumption is that this will be a safe facility.
- Q: *Everett Clark:* They are all safe and yet there have been some breaks in dams in the world?
- A: *Andrew Watson:* We will look at that in Stage 3 of the process.
- Q: *Everett Clark:* How long to build it?
- A: *Andrew Watson:* 7-years.
- Q: *Keir Gervais:* If we talk about a complete destruction of the dam, like terrorism, how far up the bank would the water go?
- A: *Andrew Watson:* I can't answer that at this point because the studies have not been done – the height of water in the dam will be 52-meters.
- A: *Siobhan Jackson:* How far up will the bank fill? That is a different question and the maximum extent that the river would go up is that it may not go outside historical levels.
- Q: *Charlotte McLeod:* You must have some idea of how high?
- A: *Andrew Watson:* About 48 meters but that is more of the head.
- C: *Dave Conway:* That type of question will be asked and answered in Stage 3 – it will be addressed there.
- Q: *Everett Clark:* Stage 3 is too late because at Stage 3 they will build it come hell or high water, no pun intended.
- A: *Andrew Watson:* This facility will be designed to the highest standard and will be regulated by the Water Controller.
- C: *Everett Clark:* So you will know by the time your studies are done.
- Q: *Gordon Davies:* If you are moving all that material during construction and we know that at no time will Taylor be out of water the issue of

turbidity continues to be a concern on the wells. When will DFO² get involved? I would like our concerns about turbidity to be noted.

A: *Siobhan Jackson:* We have started to engage DFO in discussions now and I am not familiar with the environmental monitoring but it will go on.

A: *Andrew Watson:* Impact assessment - we would be responsible to address that and turbidity will have to be carefully managed for those processes.

A: *Kyle Robertson:* With respect to the maximum flood on a dam break and normal operations of the dam we have preliminary studies relative to the normal operations and there will not be a significant change from what is existing now and that information will be available at the end of Stage 2. Timing will be the only difference from the water from Peace Canyon to Site C but we are not expecting significant changes in the elevation of water.

Q: *Keir Gervais:* I am not sure but with respect to the acquisition of additional construction materials and looking out for Taylor's sand and gravel businesses and the capacity to provide sand and gravel for construction and going back to Page 12 of the Discussion Guide - I would note that I believe that the railroad tracks connect to Taylor and there is the old Canfor site which is vacant and that could serve your interests in terms of having readily available railroad access and serve our business interests as well.

A: *Andrew Watson:* Requirements for a project like this are large and small – that is good information.

C: *Keir Gervais:* You can go and view the site; it is just over there, when you leave.

A: *Andrew Watson:* Thank you, we will take a drive by on our way.

C: *George Barber:* Our gravel pits are small compared to Teko's on the south side of the river.

C: *Dave Conway:* We have an on-going list for local contractors and we can place them on the list.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Siobhan Jackson

Page 23 – Stage 2 Baseline studies underway or planned

Q: *Troy Gould:* Every spring with the snow melts there are swimming areas at Peace Island Park that have high fecal contamination and that is from the pasture lands and this affects the swimmers – has this been looked at?

A: *Siobhan Jackson:* We undertake typical water quality studies– fixed sites we return to over the past 3 or 4 years. I can look at this and look at those sources that contribute to the water quality in the river.

Q: *Troy Gould:* Probably a one-time thing then it gets washed out.

² Department of Fisheries and Oceans

A: *Andrew Watson:* We have a study that is looking at the actual use of the land and with the agricultural use we can look to see if there is a spiking in the use of fertilizers etc.

Page 24 – Land Use; Agriculture – Siobhan Jackson

Page 25 – Forestry; Mining and Oil and Oil and Gas

Page 26 – Potential Land Use Effects

Page 27 – Information Item – Transmission Lines

Q: *Everett Clark:* I was wondering if BC Hydro has looked at maybe helping out in the stretch of the construction with the Fort St. John police detachment because the construction is going to bring in a lot of crime. Right now the Fort St. John detachment is stretched – have you looked at that at all?

A: *Siobhan Jackson:* That was always the intent in the historical project regarding, for example, dentists etc. identifying what is needed to add to the existing resources and then monitoring. We are undertaking studies to look at that and will manage and off-set with additional resources in various areas.

C: *Dave Conway:* That is something you might want to consider with respect to the question on Page 31 (community amenities).

C: *Facilitator:* As well, we have heard those comments in round 1 and the results of the round 1 consultation are posted on BC Hydro's web site.

Q: *Keir Gervais:* With respect Monkman Provincial Park recently when I was by there they were offering free fire wood because of the pine beetle and we won't mind having access to wood that doesn't have value on the market. Perhaps a free wood lot might be a suggestion.

A: *Siobhan Jackson:* That is a good comment related to resource allocations.

Q: *Keir Gervais:* I find that Site C is being more of coffee topic in the community and one topic that hasn't been raised is the perception that jobs generated may or may not be local but someone referenced another local project wherein most of the labor came from outside. I don't see the labor force identified in here?

A: *Andrew Watson:* That was a whole topic in the earlier consultation and the cost estimate has a camp on the north and the south bank however BC Hydro hasn't formulated a procurement strategy for the project. We really encourage input on that, at this point, but I am guessing that the availability of local tradesmen may be the problem.

Q: *Keir Gervais:* I was thinking of more of an apprenticeship type program for the untrained local folks where they can get involved and get trained through this project because skilled labor may be tough to get up here. My other comment is about the worker camps or are you thinking of the development of something like minor communities?

A: *Andrew Watson:* The historical cost estimate was based on most of the workers in camps but this is going to be determined through consultation

with local government and there are a variety of options, what do communities think and what is best.

Q: *Keir Gervais:* Where are you right now?

A: *Andrew Watson:* We got feedback in round one and right now we are engaged in the Technical Advisory Committee process.

C: *Siobhan Jackson:* With respect to the Technical Advisory Committee process we have had a first meeting around community services and local infrastructure and we will be talking about the base proposal and there will be more discussions and identification of interests. We wouldn't be able to make a commitment in Stage 2 because it is tied to the procurement strategy but getting the feedback is important to inform and determine what types of considerations should be put in. This is an active topic.

A: *Andrew Watson:* It is also important to put those considerations into the procurement process.

C: *Facilitator:* How are communities being consulted on the potential work force and how workers will be housed was a specific topic in round 1 and the results of that consultation are on the website and I will share the Discussion Guide from round 1 with you after the meeting. We will also be consulting through the technical advisory committees with local government, federal and provincial representatives.

A: *Siobhan Jackson:* Local one-on-one discussions with local government will be undertaken by BC Hydro and we will come back and talk with you over Stage 2.

C: *Keir Gervais:* With respect to the capacity to manage sewer and water our Council may have an appetite to hear for some aspect of housing in Taylor because living here could increase the workers quality of life and could serve the community well.

A: *Siobhan Jackson:* We will need to discuss with you and Fort St. John relative to the future plans for growth whether you wanted to absorb a temporary work force or pre-build for future growth. This is baseline information that we will be working on.

C: *Keir Gervais:* Our Council will have a real interest in engaging with you.

C: *Betty Ponto:* Infrastructure needs are very important.

Q: *George Barber:* Should we fill out the feedback form as an individual or as a Councillor?

A: *Facilitator:* Yes, individual response but we also want feedback from Council. We received input from the Administrator, on behalf of Council, last time even though we received it after the cutoff date.

C: *Betty Ponto:* As a Council we decided to provide feedback individually and not as a group this time.

Q: *Facilitator:* Would you have Terry (Administrator for Taylor) fill out (feedback form) for Council?

C: *George Barber:* Yes, he will be directed to respond.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Dave Conway

There were no further comments.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 2:00 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

HUDSON'S HOPE LOCAL GOVERNMENT MEETING

October 7, 2008

Notes from a local government meeting held with representatives of the Site C Project Team on October 6, 2008 at the Pearkes Centre, Board Room, 10801 Dudley Drive, Hudson's Hope, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Kyle Robertson, BC Hydro
Andrew Watson, BC Hydro
Jack Weisgerber, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Karen Anderson, Councillor
Robert Bach, Resident
Carolyn Bonnick, Administrator
Lenore Harwood, Mayor
Gwen Johansson, Councillor
Darryl Johnson, Councillor
Sam Kosolowsky, Councillor
Becky Mercereau, District of Hudson's Hope
Terry Webster, Councillor

The meeting was called to order at 10:00 a.m.

KEY THEMES:

- Participants expressed concern that BC Hydro's new rate structure may penalize those who have moved from gas and diesel to cleaner electricity.
 - While conceding the potential benefit to other areas in the Peace River region (Chetwynd), participants were concerned that public access to the powerhouse access bridge may negatively impact Hudson's Hope.
 - Participants requested updated information regarding slope stability at Hudson's Hope should Site C proceed.
-

1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders

Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. DISCUSSION GUIDE

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

Page 2 – Environmental Assessment and Other Regulatory Processes

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

Q: *Terry Webster:* With respect to conservation it was talked about legislation for single family dwellings and by making it legislated that would make people have to do it? Is BC Hydro doing that?

A: *Dave Conway:* That is part of the approach including working with the Building Code – that is part of the overall picture including a change in the BC Hydro rate structure and we are looking to provide incentives for people to keep their energy use lower. So it is a mixture of many things to get the energy out of it and promote conservation.

C: *Facilitator:* The question was whether there was legislation and is it in the plan?

Q: *Gwen Johansson:* The legislation is not within BC Hydro’s purview so where are you with it?

A: *Dave Conway:* We are talking to local government and working with the Building Code.

Q: *Gwen Johansson:* That was the whole problem and building codes are only one thing?

A: *Facilitator:* To summarize, the question is where are we in terms of legislation and Building Code changes?

- Q: *Terry Webster:* On September 27, in the Vancouver Sun newspaper, there was an article about renewal energy and the independent power producers said that they are offering BC Hydro 5-times the amount of energy that BC Hydro is taking, so why is BC Hydro not accepting all the independent power? Why not accept it all?
- A: *Dave Conway:* We look at the need right now and then we look to fill it as we go along so we have been doing that in incremental stages since 2003 and we have a competitive call stage for independent power. We have a high attrition rate for such projects and we could find ourselves in an over build situation.
- C: *Facilitator:* This will be discussed more in the next topic.
- Q: *Darryl Johnson:* My question is to do with raising hydro rates and with the other incentives out there to develop, for example, the use of electric lawn movers to get away from hydro carbons, and we will see more use of clean energy, is there something that will be built into that rate structure so that they are not penalized?
- A: *Dave Conway:* Electric car use could increase demand and personally I can see that an increased use for things like an electric car would push me over the conservation levels. We working on the Power Smart program and looking to move use from off-peak periods.
- C: *Facilitator:* We will be joined by Cam Matheson, Manager of Long Range Planning, this afternoon and he will be able to provide you with more information.
- Q: *Robert Bach:* The rate structure seems to penalize people that are using electric furnaces but I should wait for answer until this afternoon?
- A: *Dave Conway:* Electrical use in northern BC is the second best in the province and people using base board heaters have high consumption. You can isolate your heat use and there is a give and take but the new rate structure would mean that you could pay more.
- Q: *Gwen Johansson:* What do you mean by second best in the province?
- A: *Dave Conway:* Second lowest, per capita among households.
- C: *Terry Webster:* When you are encouraging people to go geo-thermal it would be a shame to charge more.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options – Dave Conway

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

- Q: *Terry Webster:* Are you trying to be neutral or are you trying to sell Site C?
- A: *Dave Conway:* We are looking at potential benefits and impacts so that we determine an understanding as we move forward.
- Q: *Terry Webster:* I don't see this page as neutral in any way and there could be negative as well as positive impacts. The page should also say that flooding the valley and damaging the First Nations artifacts is a negative impact and if I was doing this in school I would use this as an example of how to sway people - negative impacts and positive or neutral impacts.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics – Dave Conway

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead

Page 8 – Resource Options Comparison

Page 9 – BC Resource Options Comparison

- Q: *Gwen Johansson:* I don't think the net metering is that feasible?
- A: *Dave Conway:* For solar, it is not the net metering aspect but the aspect of solar. We have an active program within the company to have smart meters installed.
- Q: *Gwen Johansson:* When completed that will allow every customer to use a meter? To use or send power - my question was with respect to net metering.
- A: *Siobhan Jackson:* Smart meters will allow more fine tuning of rate-based energy consumption however net meters are a different structure and allows for the flow of electrons in both directions. Any customer can sign on for net metering today but I believe that it must be clean power - we are not really seeing the uptake on this.
- Q: *Gwen Johansson:* What are you paying for the power going in from the net metering, that is the key isn't?
- C: *Siobhan Jackson:* We can provide that information because it is regulated rate just like any other part of it – the price we are paying was approved by the BCUC and is on the net metering information sheet. There is web site and there are a few information sheets on the process and actually on the rate and what the contract would look like if you were to use that option.
- Q: *Terry Webster:* Recently, I went to a meeting in Fort St. John and asked how much more would it cost us if we went to all green power instead of doing Site C and the woman there told me it would probably cost about 5% more and then she said that it probably wouldn't cost any more in the long term and yet on the chart on Page 7 it is showing that it is a

- significantly higher to do Site C than others? What is the difference there - looking at bio-mass or small hydro both of them are significantly higher?
- A: *Dave Conway:* There is a range there (on the table) depending on where the fuel is.
- Q: *Terry Webster:* Site C, one of the reasons it is relatively cheap is because it can go quickly into the grid and that is why it doesn't cost as much, is that right?
- A: *Dave Conway:* There is a transmission cost and an upgrade cost it is away from the load center and there is a line loss to consider as well. Part of the transmission costs are project costs.
- Q: *Gwen Johansson:* What is included in the cost estimate because the transmission costs to Site C to the grid is a cost but getting that electricity from WAC Bennett tie-in point to the load is not included in project cost?
- A: *Dave Conway:* That is correct. The transmission line would be part of the British Columbia Transmission Corporation plan.
- A: *Andrew Watson:* The costs are on the table in Page 8 and do reflect the cost of getting the power to Vancouver and the loss in the transmission lines and any upgrades associated with different portfolios and the unit of electrical cost does reflect that and there are some credits with capacity of Site C. Base cost estimate is transmission line to Peace Canyon.
- C: *Facilitator:* So just to be clear, on Page 8, the yellow line includes the cost of transmission whereas the project cost does not.
- A: *Andrew Watson:* That is correct.
- Q: *Gwen Johansson:* I have a heard a complaint from the wind people that BC Hydro seems to think it will cost more for wind produced transmission to the lower mainland than it does for Site C because their cost estimates are being assessed transmission costs that are greater than has been assessed against Site C and I am curious about that?
- A: *Andrew Watson:* That would another question for Cam (Matheson) but it was an evaluation based on the profile of hydro and that is quite different from the profile for wind.

Page 10 – Map of Peace River Country – Andrew Watson

Page 11 – Powerhouse Access Bridge and Associated Access Roads

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

- Q: *Sam Kosolowsky:* Another road would sure kick the heck out of Dawson Creek and Hudson's Hope and I thought at the beginning we said that

people would not be allowed to use the bridge and now I have a problem with that.

- A: *Facilitator:* In the earlier consultation, the answer was in respect to travelling across the dam and the answer was clearly no but in terms of crossing the bridge, some said they wanted it and some were opposed and that is why it is here today as a topic.
- A: *Andrew Watson:* BC Hydro does not have an opinion one way or the other - we are simply exploring it.
- C: *Gwen Johansson:* I can't see how you can have a bridge and then say you can't use it – once a bridge is there public access will occur.
- Q: *Sam Kosolowsky:* That is right and once the bridge is there you will never tear it down. Could the dam access be used instead of a bridge? You will need it initially and after it doesn't need to be there. I am saying that because we are struggling economically as a community and with having people travel to Dawson Creek to shop we might as well close shop.
- A: *Jack Weisgerber:* One of the questions is that BC Hydro has to determine the design of the bridge and if there was some direction from government then it would change the design and BC Hydro will build a bridge to public standards.
- A: *Dave Conway:* We are going in the opposite direction in terms of access across our dams and we are not looking to increase public use rather it is the opposite.
- A: *Siobhan Jackson:* What hasn't been done is a thorough study on the potential effects and part of the timing is that if studies are contemplated then we would need to look at land use pressure, access to the south bank and travel movements in the region - so at the moment we are early on in the process and a significant amount of work would need to be done if the project moves forward.
- C: *Darryl Johnson:* There was an old Bailey bridge when they built the Bennett Dam and then they took it down.
- A: *Andrew Watson:* There could that aspect of that and BC Hydro is moving to increase security and it is not inconceivable to put in a security block. There would be sharp grades on the north bank, reference Page 12, and that is not realistic.
- Q: *Darryl Johnson:* If the dam was completed couldn't hydro use the top of the dam?
- A: *Andrew Watson:* That is correct but the road coming down from the north bank would be steep.
- C: *Lenore Haywood:* This has always been our concern here in Hudson's Hope and when it was noted that BC Hydro was not allowing public access across the dam that was good but now this bridge opens it up and

right now we are back to square one. Yet, Chetwynd people would like to have this bridge so you have to understand that there are other points of view but this is a major concern for us.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

- Q: *Gwen Johansson:* Back to Page 15 – with respect to the consultation results, where is the distinction to the various areas?
- A: *Siobhan Jackson:* In the text.
- A: *Dave Conway:* This is just the Peace region.
- Q: *Gwen Johansson:* Was there a variation?
- A: *Facilitator:* Yes and people in the Peace were more interested in exploring infrastructure improvements that all people were.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Andrew Watson

- Q: *Terry Webster:* How far back will the erosion occur?
- A: *Andrew Watson:* Site C will have a small fluctuation as opposed to the fluctuation at the WAC Bennett Dam. The low bank erosion line was the buffer they used in the historical studies but it is going to depend on the material (shale, overburden) that is in the area but the really important thing is the wind because that is what causes the erosion and we will do predicative modeling based on the wind. We are doing that work and within Stage 2 we will get study results.
- Q: *Sam Kosolowsky:* With respect to the shoreline at Hudson's Hope and going back to the 1980's there was a slough line running down Dudley Drive and then it got moved and where is that slough line now? I have cracks in my driveway and in my neighbor's driveway they have cracks as well, so where are we?
- A: *Andrew Watson:* There are so many impacts on the erosion line including stability, groundwater and potential sloughing – there was a historical proposal for shoreline protection and that would be looked at today and the question is where the upstream boundary would be – Hudson's Hope would be protected and the real question is what it would look like and what would be the extent of it.
- Q: *Sam Kosolowsky:* There are areas of shale rock and gravel and dirt and we will almost have to protect everything along there.
- A: *Andrew Watson:* The challenge will be when we move out of the overburden. The historical protection for Hudson's Hope was erosive and that might not be feasible against the shale and bedrock. There wouldn't be erosion against rock rather it would be a question of stability. The studies will be looking at this and a lot will be drawn on existing

conditions – we need to establish the impact line then we will be discussing that line with the communities.

Q: *Robert Bach:* At what stage?

A: *Andrew Watson:* This is one of the most high priority projects and should the project proceed there will be a site specific drilling down for further information.

Q: *Robert Bach:* Hudson's Hope is in a unique situation and we don't want to wait too far into the project to see how it will be protected.

A: *Andrew Watson:* The historical study areas are a given and the historical information is available at the Fort St. John office and on the web site.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling – Andrew Watson

Q: *Sam Kosolowsky:* With respect to the proposal for burning will there be black debris floating around?

A: *Andrew Watson:* The real issue will be smoke.

Q: *Sam Kosolowsky:* How clean will it be?

A: *Andrew Watson:* It is fair to say that we won't get all of it and there are many considerations that will need to be taken into account including wildlife etc. and that moves us to Page 18.

Page 18 – Reservoir Preparation Considerations Table – Andrew Watson

Q: *Robert Bach:* What about the roads on the south side?

A: *Andrew Watson:* We will be developing an access plan and that is something that we will have to study.

C: *Facilitator:* With respect to the consultation results, in round 1, there was a split but a few more people wanted more access and others wanted less access and BC Hydro needs to probe further here.

Q: *Robert Bach:* With respect to the power line on the south side - will that be relatively close to the river and you will need access for maintenance – access points in conjunction with the project.

A: *Andrew Watson:* Page 27 shows the clearing required but it would follow the existing right of way.

C: *Sam Kosolowsky:* There is access but it is not that great.

C: *Robert Bach:* So it is not feasible.

A: *Kyle Robertson:* For access, even if it goes down to the river and the discussion about keeping or deactivating it is feedback that we are looking for.

Q: *Sam Kosolowsky:* I got thinking about it just recently and the sloughing and I thought about Hudson's Hope's sewage lagoons and they are in gravel.

- A: *Andrew Watson:* The historical extent of the studies didn't protect the sewage lagoon but that is one of the areas we will need to protect if the project does proceed.
- C: *Carolyn Bonnick:* The engineer from Hudson's Hope recently participated in an Infrastructure Committee last week.
- A: *Siobhan Jackson:* There are seven different topics which are being undertaken by the technical advisory committees and we are engaging government; federal, provincial and local, and First Nations to participate. Invitations to local government went out on all 7 topics and for example, there are community services and infrastructure, land use and resources, recreation and tourism related to the land use side committees; and our main tasks are to focus on identifying the potential effects and concerns such as powerhouse bridge access, then we will review the data received from the committees, identify data gaps and look at what new studies will need to be implemented if the project goes to Stage 3. What would be the effect and what data do we need? Stage 2 is focusing on baseline information to support the work needed in Stage 3.

Page 19 – Impact on Resources; Looking Ahead – Andrew Watson

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

- Q: *Gwen Johansson:* With respect to the location of the fill, I would think this would have a significant impact on cost and what is the variability and impact on price – do you have a sliding scale?
- A: *Andrew Watson:* You are right that it does get more expensive the further away the construction material is however this isn't a decision factor of that magnitude rather it is something that we know we need to resolve as the project proceeds. There are factors that will be needed to be considered around access roads and how to get the materials to the site if the project proceeds.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Siobhan Jackson

Page 23 – Stage 2 Baseline studies underway or planned

- Q: *Gwen Johansson:* Do you take into account the accumulative impacts, for example, with respect to oil and gas etc. impacts or is it being looked at in isolation?
- A: *Siobhan Jackson:* The environmental assessment review process does look at accumulative effects and the scope will be looked at in Stage 3 - we haven't done an effect assessment because that will happen in Stage 3 and that scope will be defined by the regulators.

- Q: *Robert Bach:* There are a lot of eagles and hawks along the river so they are being studied?
- A: *Siobhan Jackson:* Yes and the study should be called, more accurately, a raptor nest and location survey.

Page 24 – Land Use; Agriculture – Siobhan Jackson

- Q: *Gwen Johansson:* I just want to make sure you understand that BC Hydro owns most of the land because in the 1970's there was much more agricultural activity in the valley.
- A: *Siobhan Jackson:* That was why we want to study the physical capability of the land regardless of its use.
- C: *Carolyn Bonnick:* Will the ALR¹ then put more pressure on preserving the agricultural land around Hudson's Hope, will they increase the pressure if the land that is needed for Site C comes out because there are some people, in Hudson's Hope, that want to get their land taken out of the ALR.
- A: *Facilitator:* Good comment and it should be noted.

Page 25 – Forestry; Mining and Oil and Oil and Gas – Siobhan Jackson

Page 26 – Potential Land Use Effects

Page 27 – Information Item – Transmission Lines

There were no comments received.

Jack Weisgerber, First Nations Consultation

- We have embarked on a parallel process with the First Nations based on treaty rights protected by Section 35 of the Constitution and other recent legal decisions, by the Supreme Court, outlining responsibility of the Crown with respect to consultation.
- We recognized the obligations and established a separate process for First Nations.
- We have moved along and we made a further distinction between Treaty 8 who will be directly impacted by the project and we will be engaged in an extensive process with these First Nations.
- Also we will be talking with First Nations to Alberta and along the Slave River and focus on any changes that may occur as a result of the dam being built – changes such as water temperature and turbidity and freeze-up.
- Then a team will be working with the First Nations in BC and three elements have emerged and the Province is obliged to refer to First Nations where we have requested permits and consult with them; secondly we have invited them along with the Alberta First Nations to participate in

¹ Agricultural Land Reserve

technical advisory committees and thirdly area is the obligation for consultation and accommodation.

- We have come to an informal agreement that in Stage 2 we would consult and then in Stage 3 we would discuss accommodation. I have put to them that given that the province has not decided to go ahead with the dam and it would not make sense to negotiate if the dam did not go ahead.
- Confidentiality agreements have been signed and we are obliged, at the end of Stage 2, to include a section around the First Nations and how their positions might affect the dam moving forward.
- Any accommodation agreements reached at the end of the Stage 3 would be made public.
- We anticipate some discussions with the First Nations on Williston Lake.

FINAL DISCUSSION:

Q: *Carolyn Bonnick:* With respect to the source water from the reservoir how much comes from glaciers and do you have life span predictions on the glaciers?

A: *Siobhan Jackson:* This system is largely precipitation and in addition BC Hydro is looking system-wide and working through a climate change group looking at climate change and the potential effects on our system. With respect to what we are modeling now we anticipate average year based on historical data and the point of the review is to look at the inflow record and ask if that is right.

Q: *Gwen Johansson:* Could you give us those system-wide figures and trend lines?

A: *Siobhan Jackson:* I can check on that and see what the status of the work is.

Q: *Gwen Johansson:* BC Hydro must have data based on inflow compared to outflow and the assumption that extra is coming from glaciers?

A: *Siobhan Jackson:* That is a different question and is around the question of whether we should change our assumptions about inflows based on climate change and I would be glad to speak to you further about this after the meeting.

Q: *Gwen Johansson:* Okay, we can talk about that later outside of the meeting. My last question - are there any updates on costs?

A: *Andrew Watson:* At the end of Stage 2 we will present an updated cost estimate.

Q: *Robert Bach:* Any discussion with the Athabasca region First Nations?

A: *Jack Weisgerber:* They are in the proximity of the Peace delta and we will be talking with them although at that point what we see will be very modest changes in the river. One of the First Nations has an outstanding lawsuit with BC Hydro regarding a perceived change in the delta and the other First Nations have settled their lawsuits. There are a bunch of Treaty

8 First Nations along the Athabasca River but we don't see any impact on them. We see the need and potential to talk to the First Nations along the Peace.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Dave Conway

Thank you to everyone for participating and there is continued consultation along the way and BC Hydro is committed to providing information and feedback. The consultation office in Hudson's Hope will be open a half a day a week. We also intend to promote the fact that the office has been opened and signage will be included.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 12-noon.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

HUDSON'S HOPE MULTI-STAKEHOLDER MEETING

October 7, 2008

Notes from a multi-stakeholder meeting held with representatives of the Site C Project Team on October 7, 2008 at the Pearkes Center, Board Room, 10801 Dudley Road, Hudson's Hope, B.C.

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Cam Matheson, BC Hydro
Kyle Robertson, BC Hydro
Andrew Watson, BC Hydro
Jack Weisgerber, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Beverly Bach
Eileen Chatten
George Chatten
Bob Dean
Evelyn Edinger
Barb Frocklage
Sharon Jackson
Gwen Johansson
Rose Ann Kirkeeng
Ruth Mills
Anita McWilliams
Heather Wilson

The meeting was called to order at 2:00 p.m.

KEY THEMES:

- Participants questioned why BC Hydro is considering Site C rather than other energy alternatives.
- While some participants felt that BC Hydro's efforts managing sloughing at the Williston Reservoir were laudable, they remained concerned with the issue of sloughing in the potential Site C reservoir.
- Participants were generally opposed to Site C, preferring that BC Hydro consider other options to meet the province's growing demand.

1. **Welcome and Introduction of the BC Hydro Project Team and Stakeholders**
Round table self-introductions were undertaken.

2. **The Consultation Program – Facilitator**

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bchydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

- Q: *Evie Edinger:* On the news this morning, the following message flashed steadily across the bottom of the screen: “BC Hydro announces giant Site C electrical project”. This was BC News from Vancouver - so what is the point of all these consultations?
- A: *Dave Conway:* I absolutely refute that – there has been no decisions made around proceeding with Site C. There was some news coverage around the protests at the two multi-stakeholder meetings held in Fort St. John earlier this week and that may be the reference but there has certainly not been a decision to move the project beyond Stage 2.
- C: *Evie Edinger:* It said “BC Hydro announces” on the news so what is the point of all this?

Page 2 – Environmental Assessment and Other Regulatory Processes – Dave Conway

There were no comments.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

There were no comments.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

There were no comments.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

- Q: *Sharon Jackson:* Have you got any new information on where you will get the earth for the dam?
- A: *Dave Conway:* Yes and Andrew Watson will talk about it later in the presentation.
- A: *Andrew Watson:* The majority of the dam can be sourced immediately within the vicinity of the dam (Page 21) and we are looking on both banks, north and south of the dam within 10-kilometers of the construction area, for the source material.
- Q: *Sharon Jackson:* So it is an investigation area but you don't know?
- A: *Andrew Watson:* No, we know that it is there.
- Q: *Sharon Jackson:* On the south side, isn't that First Nations land?
- A: *Jack Weisgerber:* No, there is no First Nations land there – it is all crown land.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics – Dave Conway

There were no comments.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Cam Matheson

There were no comments.

Page 8 – Resource Options Comparison

There were no comments.

Page 9 – BC Resource Options Comparison

- The first thing we do is to try and determine the demand in the province and we call that load forecasting and this is a difficult thing and we are constantly adjusting the load in the province to reflect changes in the economy.
- We set down a fairly precise view of demand and forecast for 20-years out on how much additional resource we will need in order to secure reliability for rate payers.
- So we get a view of the demand and then we look at capacity and with respect to what options are not on the table an easy one to identify is nuclear power. The government has mandated that nuclear power will not be considered. Then we look at what options are commercially available, and for example, wave and tidal are not commercially viable so they are not honest options.

- Once we know the options we characterize them, Pages 8 and 9, in the Discussion Guide looks at that and then we characterize the value of the energy we get. We look at all the characteristics and list them and take information from the independent power producers association and experts that are most familiar and interveners and then we list out the options in a large options resources report.
- Another thing we must consider is to ensure compliance with government policy – in 2002 the Energy Plan said other than building large hydro BC Hydro will purchase energy sources from IPP's¹ in public procurement processes.

DISCUSSION:

Q: *Sharon Jackson:* Can you explain further what the BC Government has said about no building?

A: *Cam Matheson:* In the 2002 Energy Plan the provincial government mandated that BC Hydro will no longer be the builder of the system other than large hydro rather we will be the buyer when we need new resources.

Q: *Evie Edinger:* Is it not true that there are 13-inactive dams in BC?

A: *Siobhan Jackson:* No, BC Hydro does not have inactivated dams. If there were structures like that the private sector would have the option to bid on and obtain the water license.

A: *Cam Matheson:* No, I don't know what you are referring to.

Q: *Evie Edinger:* What is the life expectancy of Site C?

A: *Andrew Watson:* It is really a question of maintenance because dams can go on indefinitely with maintenance.

Q: *Evie Edinger:* What about sloughing?

A: *Andrew Watson:* It would be a very long time and in the case of Site C it would be in the range of 700 plus years.

Presentation Continued - Cam Matheson:

- Since 2002 we have had numerous energy calls and either the cost to get into service would be too great or they are not there.
- Dams are built for all sorts of reasons like flood control but have no capability for electrical generation.
- In 2007 there were additional considerations such as: BC Hydro must meet 50% of its new need through demand side management or conservation programs. We are trying to change the way ratepayers use our product to forestall building new projects by conserving the product. That is one of the key elements of the 2007 Energy Plan. Another component was that BC would become self-sufficient in energy by 2016. Finally, new thermal resources (coal/natural gas) must be completely off-

¹ Independent Power Producers

set as soon as they are built and that adds cost-uncertainty and it is unlikely we would build thermal until we get a better idea of cost.

- So we set out a 20-year time and then we look at viable options and then we look at public policy to see what the constraints are and then given the system we add resources that synchronize well with the system.
- The system is hydro-electric and we do the essential things we need: reliability, historic low-cost of the system, and then we put together a series of portfolios to see what will best fit with our criteria and then we determine a view of all the characteristics and then decide on a single portfolio that best suits us and we take that plan to the regulator, the British Columbia Utilities Commission, and then we defend it.

DISCUSSION:

Q: *Gwen Johansson:* You mentioned direction from government because that is the key; eliminate nuclear, thermal must be zero-emissions and yet you don't say that about large hydro and then there is special direction #10 and you can't use imports and there are changes to the British Columbia Utilities Commission and then there is self-sufficiency and we see that you are using critical water years. It seems to me that the direction has restricted you so that you can't go anywhere else – there are no other options and BC Hydro has a vested interest in this (Site C) going forward. We have the wrong people at the table because the Ministry of Energy should be here.

A: *Cam Matheson:* With respect to your last point about growing business – we aren't in the business in that sense and we only look at growth opportunities that we need to meet the demand growth.

C: *Anita McWilliams:* He was speaking about the need to reduce and I can recall when there were ads saying live better with BC Hydro and now ads say use less and they are very poor ads. They don't make sense those power smart ads.

Q: *Ruth Mills:* Why does BC Hydro sell so much electricity?

A: *Cam Matheson:* We use the markets outside the system to optimize the system we have right now. We enjoy flexibility in the system and electricity is a volatile market and most generators can't turn their plants off and on but with hydro-electric we can stop generating and store water in the reservoir and then when the market spikes we can run the dams and seek advantages for our customers. That is different between trying to buy and sell into the market on a net basis – we do not do that. On a net basis we import more than we export and we have allowed the system to become dependent upon the markets. We must become self-sufficient so we don't lose energy security and by 2016 we must be self-sufficient.

- Q: *Gwen Johansson:* You haven't been net importers every year. With respect to the point you made about net import if it is cheaper to buy power why wouldn't you buy it?
- A: *Cam Matheson:* We have up to now.
- C: *Gwen Johansson:* I am going to argue we should do that and will argue that at LTAP².
- Q: *Sharon Jackson:* Does BC Hydro have plans to store energy instead of having to sell it? Is there any way to store energy?
- A: *Cam Matheson:* Once electricity is produced there is no storage but we often refer to storage as water in the reservoir but once the water has gone through the generator you can't store it.
- Q: *Sharon Jackson:* So the water sitting in the reservoir that is an asset?
- A: *Cam Matheson:* Absolutely, that is one of the most important assets.
- A: *Andrew Watson:* And Williston is one of the most flexible reservoirs on the planet.
- Q: *Sharon Jackson:* Looking at this from a different point of view that dam (Williston) is continually sloughing and BC Hydro doesn't address that because there are very few residents affected by it but there are residents that have lost almost 400-meters of their properties. If BC Hydro can't fix existing problems then how is it going to fix Site C?
- A: *Siobhan Jackson:* At the north end of Williston we are doing some bank protection.
- C: *Sharon Jackson:* After 40-years you are doing some bank protection - you should be doing a lot more.

Page 10 – Map of Peace River Country – Andrew Watson

There were no comments.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments.

² Long Range Acquisition Plan

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

Q: *Evie Edinger:* Where does that leave Hudson's Hope?

A: *Andrew Watson:* Highway 29 will be relocated and maintained as a highway. In round 1 public consultation, we went over the historical alignments and since that time we have talked with the MoT and updated the information down in the valley bottom at the Halfway, Farrell and Lynx Creeks and updated the design standards. We are just completing the work right now and then there will be a series of consultations with the affected land owners and then the information will be released.

Q: *Evie Edinger:* And did you consult with MoT³?

A: *Andrew Watson:* Yes.

Q: *Barb Frocklage:* Why did MoT build that new bridge at Cache Creek then?

A: *Andrew Watson:* There were safety considerations that MoT considered.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

Q: *Sharon Jackson:* Like the round 1 consultation booklet, this (Discussion Guide) is so biased that is laughable and the ability to add comments is not even here this time. Where do we go to find the comments from the last consultation - where has Site C filed away the comments that were the individual comments?

A: *Facilitator:* Kirk and Co. Consulting Ltd. compiled the consultation summary report and the data was verified by Synovate, an international polling firm.

Q: *Sharon Jackson:* Why aren't the consultation summary results here?

A: *Facilitator:* I will make the ability to access that information available to you - where you can find the results of the previous consultation.

Q: *Gwen Johansson:* There are suggestions about the benefits but there aren't any impacts and that creates a frame of reference for benefits but doesn't let you look at the other side. This leads an open-minded person to be swayed.

A: *Facilitator:* I think that the two topics in this guide (reservoir and materials) are topics that focus on impacts that will occur if the project goes ahead. That is a fair comment from you but there is a great deal of information in this guide and a lot of focus on impacts.

C: *Sharon Jackson:* There are so many people that don't attend these meetings and if they thought it was a fair process they would but people in the community say it is not a fair process and this is not a small percentage of people that believe this so there must be something to it.

C: *Evie Edinger:* I have two sons that live on the river and they don't need power and this will be a huge thing to them. When you talk about off-sets that is like we took the land and fur from the Indians and gave them shiny beads back and then said shut up. Thank you, those are my comments and now I have to leave.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Andrew Watson

Q: *Anita McWilliams:* So it would be over some of the farm fields?

A: *Andrew Watson:* Yes in some of the shallower areas.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling – Andrew Watson

There were no comments.

Page 18 – Reservoir Preparation Considerations Table

There were no comments.

Page 19 – Impact on Resources; Looking Ahead

Q: *Barb Frocklage:* I was looking at the table here and what about the Dolly Varden, aren't they are considered an endangered species?

A: *Siobhan Jackson:* This table is specific to the terrestrial-based clearing activities.

Q: *Barb Frocklage:* Right but it will affect the whole river?

A: *Siobhan Jackson:* We would invite you to comment on that and BC Hydro has initiated radio tracking for fish to understand their critical habitats and life stages and we will be completing those reports and moving the results into the impact assessments if the project proceeds. There are many years worth of work that will go into the fish and aquatic program.

Q: *Barb Frocklage:* Where do we access the information?

A: *Siobhan Jackson:* As the reports are finalized we will make them available by the end of Stage 2 or earlier if they are available.

Q: *Rose Ann Kirkeeng:* Slopes have been a problem in Williston and how will BC Hydro solve that problem in this reservoir?

A: *Andrew Watson:* There are over 280-kilometers of shoreline and it is not feasible to do shore protection all the way but we will protect Hudson's Hope and the rest is predicting where it will be needed.

- A: *Dave Conway:* Williston is much different and has greater fluctuations than is proposed for Site C.
- C: *Ruth Mills:* You need some yachting engineers because you don't seem to know much about boats and you don't seem to know much about moving water on stumps because it might be a stump one week then a floating mess the next week. I am speaking about aluminum hulled boats because they are very difficult to repair and Zodiacs aren't very comfortable.
- Q: *Beverly Bach:* Where will the material come from?
- A: *Andrew Watson:* It is also a question of what it would look like and the area protected will be an area of overburden that is protected by a berm. This will be subject to consultation with the community.
- C: *Beverly Bach:* Some of the banks are really sheer and you can see the gravel along the bank but we are down by the waterfall.
- A: *Andrew Watson:* That is an area that will have to have protection.
- Q: *Beverly Bach:* One of our concerns was to have a berm built however we have worked on our property a great deal and we don't want to deal with a trespass issue.
- A: *Andrew Watson:* We are doing the impact work right and the next stage will be to look at the finalized work and then we will need to determine the boundaries for the protection areas. The process is getting the impact line work done and the preliminary work out on that and then if the project went to Stage 3 there would be much more work and consultation.
- Q: *Heather Wilson:* How high would it be at the hotel in Hudson's Hope?
- A: *Andrew Watson:* 8 to 10 meters at Hudson's Hope although I am not familiar with where the hotel is.
- Q: *Heather Wilson:* We live down past the school and when we excavated for our property the structure was shale and sandstone and if we weren't protected wouldn't there be a risk that the sandstone would be washed away and the shale would compact and it would damage our property?
- A: *Andrew Watson:* I know that once you move into the material that the Peace Canyon Dam was founded on there wouldn't be a detrimental effect but that is our nature of our work and then we discuss with property owners.
- Q: *Heather Wilson:* What about Holland Park and the islands?
- A: *Andrew Watson:* We do have the maps available, at the Fort St. John consultation office, that show which islands would be inundated.
- Q: *Rose-Ann Kirkeeng:* So the water will be backed up to Hudson's Hope?
- A: *Andrew Watson:* Yes, 0-meters at Peace Canyon and 50-meters at Site C.
- Q: *Beverly Bach:* So what is the plan for the bridge?
- A: *Andrew Watson:* There will be zero change at the bridge.

- C: *Heather Wilson:* Thank you for coming. I am totally opposed to the dam and I will continue to say that but I have to go.
- A: *Dave Conway:* Just to let you know that the deadline for consultation feedback is November 30th.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – Andrew Watson

There were no comments.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

- Q: *Anita McWilliams:* Won't that leave a great big hole there?
- A: *Andrew Watson:* There will be different areas of excavations so you won't have a big hole.
- Q: *Ruth Mills:* What do you mean by 'in the like'?
- A: *Siobhan Jackson:* You would use landscape ideas to design the habitat and it would be on a smaller scale of relocation materials.
- Q: *Anita McWilliams:* I would like to make a comment – how far up the Moberly River will it be flooded – how far will it be backed up?
- A: *Andrew Watson:* It will be flooded 10 kilometers up the Moberly.
- Q: *Anita McWilliams:* How close to Moberly Lake?
- A: *Siobhan Jackson:* It is a very long way and it is not close to the lake – it will be some distance from the lake. What are we studying - our fish and wildlife studies will take place on the Moberly River and we will be doing more observation studies.
- Q: *Anita McWilliams:* What will you do with the information; will it change your mind in any way?
- A: *Siobhan Jackson:* If the project moved to Stage 3 that would be an effects assessment by the regulator and it would be there that the decision to weight the benefits and impacts will take place.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Siobhan Jackson

- Q: *Anita McWilliams:* This is all very interesting and how many people will be involved?
- A: *Siobhan Jackson:* All the work is being by consultants and we will be tracking various animals and reporting on status and activity.
- C: *Anita McWilliams:* So you are the people that have been putting up and down the river and flying over in helicopters, there has been a lot of activity.
- A: *Siobhan Jackson:* It is a lot of work.

- Q: *Eileen Chatten:* We have run into people doing bat studies and owl studies – this is on the ground.
- A: *Siobhan Jackson:* One of the commitments we have made is that we will contact the property owners before we go onto their land to minimize disturbances to the property owners.

Page 23 – Stage 2 Baseline studies underway or planned – Siobhan Jackson

There were no comments.

Page 24 – Land Use; Agriculture

- C: *Anita McWilliams:* The agricultural land is priceless.
- Q: *George Chatten:* What percentage of agricultural land will be flooded?
- A: *Siobhan Jackson:* Percentage of what?
- A: *Jack Weisgerber:* I think that the question was: of the lands that are going to be flooded what percentage would be Class 1 agricultural land?
- C: *Siobhan Jackson:* Historically there were about 100 ha and now with the updated information we think it is about 191 ha but when we get the final numbers we will release them. This is a difficult question because is it agricultural land or currently cultivated land? I can follow up with you with 1980's numbers and as we are able to update those numbers that will be contained in the final reports at the end of Stage 2.
- Q: *George Chatten:* What percentage of Class 1 agricultural land is being farmed today?
- A: *Siobhan Jackson:* The current use of land is the topic of one of the studies where we will be going out and talking to the property owners to ask them how to use their land.
- C: *Anita McWilliams:* I wrote down my feelings this morning and here they are:
“This is why I oppose (Site C):
1. The flooding and consequent destruction of Class One Agricultural Land forever and ever would be a crime against future generations.
 2. Only about 10% of the Province of British Columbia is rated as first class food-producing land. In a world of ever-growing populations and ever-shrinking food-producing lands, again I say this project would be a crime against future generations.
 3. Highway 29 “the Hope Road” is one of the finest drives in Canada. As an asset to tourism, which can only grow over the decades, it has enormous value. The necessary re-routing of this Highway, in my view, would be another crime against future generations.
 4. To argue for Site C reservoir as an asset to recreation is ludicrous. The river already has that virtue. Will a lake with sloughing banks enhance this? Look at the evidence of instability in the banks at Watson’s Hill and the Great Slide near the Halfway River which happened in the

early 1970's. This would just go on and on much as it does in Williston Lake, and clog up your generators.

5. The proposed power would simply follow its predecessors straight to the Lower Mainland. They don't care about us, they barely know we exist.
6. The City of Vancouver generates millions of tons of garbage which is hauled into the Interior and dumped. That garbage should be converted into energy to supply Greater Vancouver. I understand that technology exists and is in use elsewhere. **GET BUSY WITH THIS!!!**
7. The harmful effects on wildlife and ecology generally go without saying."

The record notes that a written copy of the submission was provided to the Facilitator.

- C: *Gwen Johansson:* I recently noticed that there was a huge discussion in the Vancouver Sun and great to-dos because of the proximity of a windmill in the lower mainland and people would be able to see it. Someone has to take responsibility for balancing things and we know there are more votes down there but when you looking at the disruption of one windmill compared to the destruction of an entire valley there must be some balance.

Page 25 – Forestry; Mining and Oil and Oil and Gas – Siobhan Jackson

Q: *Anita McWilliams:* Are you talking about clearing the islands?

A: *Siobhan Jackson:* Yes we are.

Page 26 – Potential Land Use Effects – Siobhan Jackson

There were no comments.

Page 27 – Information Item – Transmission Lines

There were no comments.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Dave Conway

Thank you for your attendance. There will be consultation processes throughout Stage 3 if the project advances to that stage. We are committed to releasing Stage 2 reports when they become available. The deadline for feedback is November 30th and there are many opportunities to provide input.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 4:00 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

HUDSON'S HOPE MULTI-STAKEHOLDER MEETING October 7, 2008

Notes from a multi-stakeholder meeting held with representatives of the Site C Project Team on October 7, 2008 at the Pearkes Community Center (10801 Dudley Street, Hudson's Hope, BC).

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Cam Matheson, BC Hydro
Kyle Robertson, BC Hydro
Andrew Watson, BC Hydro
Jack Weisgerber, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Guy Armitage
Christine Baker
Arlene Boon
Ken Boon
Mary Brereton
David Butterfield
Ken J. Chambers
Paul Dupris
Pat Enderlin
Lenore Harwood
Darryl Johnson
Dick Kress
Joan Kress
Clara London
Carl Lynch
Blane Meek
Maryann Meek
Glen McTaggart
Mike McWilliams
Jason Naisby
Kelly Newsome
Larry Noble
Barb van Nostrad

Dick van Nostrad
Deborah Peck
Ross Peck
Cecil Siemens
Doug Summer
Leigh Summer
Ed Sykes
June Sykes

The meeting was called to order at 6:30 p.m.

KEY THEMES:

- Participants suggested that BC Hydro spend the same amount investigating energy alternatives, such as geothermal, as they are spending on Site C.
- Participants were generally opposed to retaining Site C as an energy option.
- Participants were interested in how much land, of that required to build Site C, is owned by BC Hydro.

1. Welcome and Introduction of the BC Hydro Project Team

Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. DISCUSSION GUIDE

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bchydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

Q: *Ross Peck:* When did Stage 2 start? Was it last spring?

- A: *Dave Conway:* Stage 2 began with pre-consultation where we asked what you wanted to be consulted on and then round 1 and round 2 consultations were developed.
- Q: *Ross Peck:* Do you have a final deadline for Stage 2 – is it two calendar years until it ends? The decision point is quite important.
- A: *Dave Conway:* Fall/winter 2009.

At this point the meeting was interrupted by a protest for a period of approximately 5 minutes. The protestors stated that they were concerned about the consultation and that answers should be provided to the questions asked. They asked for fair consultation and stated their opposition to Site C.

Page 2 – Environmental Assessment and Other Regulatory Processes – Dave Conway

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

- Q: *Ross Peck:* I think you did listen a bit at the last meetings and now you have geo-thermal listed but other things like the Columbia River and nuclear power aren’t on the table. Am I correct in assuming that this is the only project getting \$40-\$50 million to support it?
- A: *Cam Matheson:* On that scale yes.
- Q: *Ross Peck:* What about the Moran Dam on the Fraser – why isn’t that being looked at? We are seeing this (proposed Site C) up here because it is a long way from the lower mainland.
- A: *Cam Matheson:* This is being considered because Site C can take advantage of the water already stored in the Williston Reservoir and the unit energy costs for Site C are so much lower than would be on a brand new river with a brand new development.
- Q: *Ross Peck:* If your power projections are right then within 10 to 20 years we will have to be looking at something else. You have to be looking futuristically and we shouldn’t be putting all our eggs in one basket and I would agree with the impacts on the river as outlined in this section.
- A: *Cam Matheson:* I take your point about Site C.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

This section was not presented.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Cam Matheson

There were no comments received.

Page 8 – Resource Options Comparison

There were no comments received.

Page 9 – BC Resource Options Comparison

- The first thing we do is look at demand for the province and those changes over time as the economy flows and ebbs and with in-migration and growth. Although it is tricky it gives you a good idea about the gap and what needs to be filled and that is called the load forecast.
- Then we look at the options that are available to us and nuclear is one option any utility has and we determine what the realistic options we have at our ability to consider. The province has said that there will be no nuclear.
- We also look at options that aren't commercially viable and those are wave and tidal – when they are, we will look at bringing them in to the system at that point.
- Then we develop a roster of resource options and got to the experts in the field and look at cost, efficiency and look holistically at the system. Then we look at which option will fit best with the electrical system we are running in the province.
- Our electrical system is largely hydro and 90% comes from large hydro electrical resources and has specific characteristics and one of the great values of the system is that it is flexible and that allows you to gain access to the broader markets. We have one of the lower rates in North America by optimizing the resources and we want to add resources that enhance our ability to do this.
- So we look at provincial and public policy and ask what the constraints are and the provincial government has come out with two energy plans. In 2002 they said that BC Hydro cannot be the builder of the system except for large hydro; and, in 2007 the government said that at least 50% of new energy must come from demand side management – so we must ask the customers and ratepayers to be more conservation minded and in 2020 that initiative will represent two times Site C. By 2016 the province must be energy self-sufficient and anything must on a net basis but be generated by the Province of BC.

- We have a clean renewal standard that we must adhere to and that prohibits us from filling up with thermal.
- Further the government has said that any new thermal must be completely off-set when built.
- We then take the remaining resources available to us and build portfolios that will meet growing demand in the future. We develop and model and see what they cost over time and eventually select one. Criteria: low cost for ratepayers, look at only resources that will provide high standards of reliability, and meet the other policy directives and arrive at a preferred portfolio and file with the British Columbia Utilities Commission (BCUC).
- Site C would still have to go to the BCUC if it proceeded.

DISCUSSION:

Q: *Doug Summer:* They (government) only said large hydro and that is the Site C option and being from this area and seeing what the Peace has already been asked to give up we feel that someone else should have to give up something. There is transmission loss and if a generator was closer to where there was load then there would be less line loss. Does your cost estimates include the cost of transmission lines and loss?

A: *Cam Matheson:* Yes it does and the cost estimate includes the cost of any additional transmission that has to be built including line loss. The reference price is plant gate cost minus additional costs to get to load center.

Q: *Ross Peck:* Is Site C in LTAP¹ as a preferred option?

A: *Cam Matheson:* It is in the plan as a contingency resource not base resource required in 20-years.

Q: *Deborah Peck:* Contingent upon what?

A: *Cam Matheson:* The current plan is different than any other plan BC Hydro has submitted in that most of the demand will be met by demand side management initiatives and this is different for us and carries risk. We have to build programs and get into the demand side management. So contingences will be very important and how we would bring into the system if the contingency became necessary. Mica (Dam) is also identified and we can build thermal plants in one-to two years.

Q: *June Sykes:* Never solar and wind power? We have wind power here but can they send it on your transmission lines?

A: *Cam Matheson:* We are acquiring wind power and they can come onto the grid. Wind is on there but solar isn't cost competitive in BC at this point.

¹ Long Range Acquisition Plan

- C: *David Butterfield:* I work as an educator and I work for human rights. I have already given a challenge to the Panel before on behalf of the First Nations relative to Estoppels' Orders and an affidavit of non-response and judgments have been set. BC Hydro has no lawful authority over the land and is registered as a private company on the New York stock exchange. You have no authority and BC Hydro is a company that is private and as such public laws cannot claim control over. You have no authority to be here and you are violating all these peoples' rights. You are ignorant of not even knowing who discovered alternating current and it was Tesla. You have no lawful authority here and you have violated the law. Everyone who has been subject to these people had had their rights violated.
- C: *Facilitator:* We must move along here and I will move to the next speaker.

The record notes that Mr. Butterfield submitted a number of documents in support of his statements. These documents have been attached as an appendix to the meeting notes.

- Q: *Mike McWilliams:* Co-generation isn't mentioned - is it exempted? Co-generation should be here and should be exempt. Are we studying that?
- A: *Cam Matheson:* Most of the facilities have already been turned over to co-generation that can be and in terms of existing facilities there is not much room left. In the calls for power we can take applications from the private sector and we set up co-generation - we are moving into that direction.
- A: *Dave Conway:* Additionally, there are some co-generations plants in Kamloops and Prince George.
- A: *Cam Matheson:* There is also another aspect that we are trying to avoid and that is incenting our industrial customers to sell power to the grid and by doing that they can't produce their product and workers lose their jobs.
- Q: *Ross Peck:* I might have got us off track earlier and I appreciate Cam's (Matheson) analysis. Is it correct that there is no other large hydro being considered other than Site C?
- A: *Cam Matheson:* That is correct that is the only large hydro product that is being analyzed and if we can't build Site C we can't build anything.
- Q: *Ross Peck:* My next question relates to the options on Page 9 and it is good to have geo-thermal on the list but I am assuming it is the geo-thermal around South Meager and to my reckoning and with all the money being spent on Site C; there is considerable geo-thermal potential in the province but we need to have someone evaluating that on an equal basis. Relating geo-thermal to the oil and gas industry why aren't we putting

those royalty benefits to help geo-thermal? The potential, for geo-thermal, is unlimited and is at the bottom of the costing.

A: *Cam Matheson:* I agree that there is strong evidence for its potential but it is not cost-competitive on the energy calls and I am sure that is because of the cost-nature.

Q: *Ross Peck:* We know that it does have potential and if it (geo-thermal) had incentives it could be viable?

A: *Cam Matheson:* We don't know that about the incentives.

Q: *Ross Peck:* We need something to kick start it. My other point is the question about 800-megawatts, is that South Meager?

A: *Cam Matheson:* No, there are certain pockets that have been identified as potential but at the present time there is little known.

C: *Ross Peck:* The Peace Valley has geo-thermal resources to equal Site C.

A: *Cam Matheson:* For example, we know that we may need to develop new resources in the Fort Nelson area and we put out an expression of interest and we didn't get back any meaningful responses. The independent power developers aren't prepared to put the financial stake in the ground.

Q: *Leigh Summer:* Regarding the Fraser River, why not put a run-of-river with a long 20-30 mile tunnel in the canyon and if it was large enough it wouldn't affect the salmon run. Has that been looked into?

A: *Cam Matheson:* At one time it was looked at in terms of large storage and it was shot down and we are bound to procure power through our calls. In terms of BC Hydro it would have to have a large reservoir; that is our definition.

C: *Leigh Summer:* If it was a large enough run-of-river then it becomes large hydro but because it has no storage you can't get involved.

Q: *Doug Summer:* I don't think my first question was answered and you haven't said that Site C is the only new hydro? You said you are doing expansions in other facilities and increasing outputs and that there are additional generators at Mica Creek but my other question is with all the hydro you can get a tremendous amount of power without incurring the environmental intrusive facility you are contemplating at Site C?

A: *Cam Matheson:* All the calls have been coming back as small hydro and wind - so everything we have been adding is small hydro. We are already doing that and we haven't reached this point but the energy comes and goes and we can shape it.

Q: *Pat Enderlin:* I am having a problem - why don't you go away and come back when you can come and talk about other large projects other than Site C?

A: *Cam Matheson:* We are tasked with meeting electricity demand in the province and we have to add resources in a timely way. We have to deal with what we have.

- C: *Pat Enderlin:* You are still not getting the point that we want you to go away and come back with other projects.
- Q: *Ross Peck:* What happens if the water stops running - isn't it time to diversify the system?
- A: *Siobhan Jackson:* Your question is about inflows into the Peace system it is largely precipitation-based inflows – snow pack, rain, glaciers (not significant) and the status of the inflow study relative to climate change. We keep yearly data and on the Peace we have about a 60 year hydrology data and then we plan for average year and adjust and look at whether or not the average is right for forward planning and variations around that drives the energy on the system.
- A: *Cam Matheson:* That is a very good point and we have to consider the risk of having all the eggs in one basket - most of the growing need is being met from demand side management.
- Q: *David Butterfield:* What about the Tesla alternating energy waves – it is operating in the US and why can't you do it? Talk about monopolies - scumbags.
- A: *Cam Matheson:* No one in the world provides free energy.

Page 10 – Map of Peace River Country – Andrew Watson

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

- C: *Doug Summer:* I feel that it is almost insulting to the public in this area to divert us to a minor part with a projection of what could come after something that is not approved and not being done is done. Why doesn't BC Hydro come to the table and say that; because they have a narrow involvement in this and it is the Government of BC that should be here answering questions.

- C: *Ross Peck:* Wearing my Hudson's Hope Historical Society hat, if this goes ahead it will have negative impacts for Hudson's Hope and the impact of high grade access would need to be looked at and mitigated and who will do that? BC Hydro will say their responsibility ends at the rail head and this will open a whole can of worms but will make Chetwynd happy.
- A: *Andrew Watson:* We were asked to look at it and if it were to ahead there are a series of studies that would be implemented to take a look at potential impacts.
- C: *Ross Peck:* You say that it will make it better for the gas and oil industry but there may be some negative impacts that haven't been thought of.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

- C: *Mike McWilliams:* I see here all the benefits but where are the downsides? I don't see this and you are spinning this positively and it makes you look like government flunkies.
- A: *Facilitator:* We heard a similar comment earlier this day like that.
- Q: *June Sykes:* Will we get a chance to state our reasons around the bad impacts that this site will have on us? Are you going to listen to us?
- A: *Facilitator:* Yes, please state them now.
- Q: *June Sykes:* For example, the Head Office (BC Hydro) makes the decision to move the line crew out of here and now they work out of Prince George. And now you want another big project and why can't we make our own decisions here?
- A: *Dave Conway:* When the decision was made to remove the remaining crew we were down to one person and we tried to fill the position locally. We do national searches and we go to trade fairs throughout Canada and the US. The issue is that people don't want to live in small communities and all utilities are looking for the same person. There is a shortage of skilled workers and we were already doing the work out of Prince George.
- C: *Cecil Siemens:* Can I quote you to our plant manager? Good because I will - the plant manager at GMS Shrum.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Andrew Watson

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

There were no comments received.

Page 18 – Reservoir Preparation Considerations Table

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead

- C: *David Butterfield:* There is no mention of human rights.
- Q: *Leigh Summer:* You made mention of a fluctuation of 3 feet and then you said it was 1.8 meters, which is it because they are different? If the total fluctuation was 1.8 meters that is huge when you want to stabilize a bank - at 6 feet that is a huge consideration.
- A: *Andrew Watson:* Total fluctuation would be 1.8 meters and this would be one of the most stable reservoirs in hydro's system. This is same type of fluctuation that is at the Revelstoke Dam.
- Q: *Ross Peck:* So if the mills don't want the timber then we burn it because we have to get rid of it? We have mills shutting down all over and there has been a downturn in economics that might continue for a long time. Are you having discussions with the mills already? You have this whole clean image of Site C and yet there are potential green house gas impacts around the whole clearing thing?
- A: *Andrew Watson:* The clearing plan would be addressed in the GHG² emissions plan and with respect to the local mills and their capacities that would have to be assessed but I will take your comments.
- C: *Dave Conway:* We did meet with some of the local mills in the previous round of consultation regarding their operations and potential impacts.
- C: *Siobhan Jackson:* We have also met with the Ministry of Forests and they have interest in having the product make it into the harvest stream. This has to be an initiative that we look at very early because we need to understand their plans.
- A: *Ross Peck:* My first comment is that this could upset the apple cart.
- C: *Leigh Summer:* You keep talking about "we" but that "we" should mean everyone in BC and when you say "we" you are part of BC too and when Cam (Matheson) makes the point that BC Hydro is not allowed to look at different levels it is like the government has already made the decision for "we".
- Q: *Ross Peck:* Inherent in this discussion, with respect to the steeper slopes and stabilization, is that the public needs to realize that it will be 20-years plus before you can get on the water. We will lose the recreation potential during the 7 years it will take to build the dam, then it has to be filled up and the recreation potential probably won't happen in my lifetime.

² Greenhouse Gas

A: *Andrew Watson:* With respect to the beaching and erosion issues that will happen in the first years we will have to clear the debris and monitor the slopes from risks of sliding however recreational use could be made of most of the reservoir.

Q: *Leigh Summer:* How will you police that use?

A: *Andrew Watson:* Monitoring.

C: *June Sykes:* My children grew up on the river and I live on the creek and you are going to take that away and give me six feet of water and fill-up my creek.

C: *Pat Enderlin:* I don't know if you have been on our reservoirs or been around our area.

A: *Andrew Watson:* Williston is massive; it is like an inland sea.

C: *Pat Enderlin:* We will still have debris on Lynx Creek.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – Andrew Watson

Q: *Ross Peck:* Where is the river, left to right?

A: *Andrew Watson:* River will be diverted to coffer dam on the left through the north bank.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead – Andrew Watson

Q: *Mike McWilliams:* Who owns the property where the material will come from?

A: *Andrew Watson:* It is crown land.

Q: *Ross Peck:* Maybe we should look for “Option A” downstream – that is just a factious comment. You allude to this but I want clarification if this material isn't found within 10 kilometers - will it add to the cost?

A: *Andrew Watson:* It is significant and we are going to look for the material within the 10-kilometer radius of the construction site and we know that there is a cost to processing material.

Q: *Ross Peck:* Well that is one cost we don't know about. With respect to the material and what will happen to that – that is deferred to Stage 3 where there could be considerable cost and environmental impacts.

A: *Andrew Watson:* There is also a large contingency in the cost-estimates. The disposal areas are consisting of building a dyke but the most significant impact would be moving the material around. Page 33 has the input we are looking for and the important factors that we are seeking feedback on - please note that there are competing trade-offs.

C: *Ross Peck:* It will be subject to evaluation in Stage 3 and it looks more and more like Stage 3 will carry the ball.

**Page 22 – Environment – Preliminary and Baseline Resource Studies;
Wildlife Studies – Siobhan Jackson**

Page 23 – Stage 2 Baseline studies underway or planned

- Q: *Mike McWilliams:* Can we get our hands on this studies, I suppose they aren't done yet?
- A: *Siobhan Jackson:* At the end of Stage 2 final reports will be available or earlier if they become available.
- Q: *June Sykes:* It will take several years to do the studies and yet you say they will be finished in '09 so even if you start right away you haven't got a very long time for the study?
- A: *Siobhan Jackson:* It depends on the study and for example, we started work on a fish community study in 2002 - many of the studies are follow-up work. An example of a one-time study is the fish tissue and scale study to understand the diversity and there will be new studies added as we move forward.
- Q: *Ross Peck:* Will you be doing a study on the impact of the study? At the end of Stage 2 you will find out that this is a good valley to live in for humans and 'critters' but you still won't know what will happen when you jerk the core out? The impacts and how that will affect us won't get studied until you get into the third stage. You are also getting a leg-up into the environmental assessment review process. I don't think this is a fair process and the deck seems to be stacked against the people that live in the valley and against the 'critters'.
- A: *Siobhan Jackson:* There will be further opportunities for consultation and studies in Stage 3 and if we left these studies until then we would find that we didn't have enough information to provide a quality review.
- C: *Ross Peck:* You are doing baseline information to develop mitigation and impacts of the reservoir and how you deal with that won't be done until Stage 3? Cabinet will think we spent \$30-\$40 million on studies and basically what we gave them was a list of critters and here is what they do.
- A: *Siobhan Jackson:* The normal process would be to wait and file and that is not the decision that the government or BC Hydro made - the baseline information will assist Stage 3.
- A: *Facilitator:* Based on my experience I can tell you that the BC EAO³ and CERA⁴ will not allow mitigation based on baseline information.
- C: *Ross Peck:* Then I think Stage 2 should be longer.
- Q: *Arlene Boon:* Site C has been on the books for 30-years so why didn't you do your studies then?
- A: *Siobhan Jackson:* There were studies however they weren't on-going because BC Hydro stopped considering Site C.

³ Environmental Assessment Office

⁴ Canadian Environmental Regulatory Authority

- C: *Doug Summer:* By virtue of the fact that BC Hydro has held lands in the valley for a long time there isn't much that BC Hydro has not had their fingers on - they kept ownership even though the dam was pulled off the books for a considerable period of time.
- Q: *June Sykes:* What is the percentage that BC Hydro owns in the valley, have you been continually purchasing land and how much land do they need to buy before they own it all?
- A: *Dave Conway:* We are working on producing a finite number but roughly speaking, since the passive acquisition program started, we own about 75% of the land.
- A: *Siobhan Jackson:* Just a correction - it is a mixture in the 75% of crown and private land.
- A: *Dave Conway:* Thank you; it is about 50% - 60%.
- C: *Arlene Boon:* Can't you just look at your land titles to see what land you own.
- Q: *Ken Boon:* My comment was about the crown land and last time you showed us crown land as BC Hydro land?
- A: *Andrew Watson:* There are many factors that will be considered but the ball park number is, outside of crown land, that BC Hydro owns half and determining those exact numbers we know is very important. We have just up-dated the highway alignment and we will follow up with consultations for affected land owners.
- Q: *Christine Baker:* It is obvious that we find we don't want you people here. With respect to the wildlife we know that it will be interrupted and now with the change in the drive to Fort St. John that will become longer. With the wildlife and things we have a lot around that people are concerned about and if you take it away we will have more to deal with and how is it going to affect this little town? This isn't a big job place either.
- A: *Andrew Watson:* With respect to your comment about the drive to Fort St. John it will not be longer - if anything it will be slightly shorter.
- C: *Blane Meek:* I asked Dave (Conway), at the last meeting, about when they were going to start selling the land back and lift the flood reservoir and I would like that question answered. If they (BC Hydro) fail on this are they going to lift the flood reservoir or will be dealing with this 25 years from now?
- C: *Arlene Boon:* When you were talking about the collar program for deer and elk how will that work with a wide-open hunting season?

- A: *Siobhan Jackson:* We are working with the Ministry of Environment and we are just developing the collar program right now.
- Q: *Ed Sykes:* I understand that the highway alignment has already been decided, is that right?
- A: *Andrew Watson:* There are a number of options and we will have to work through those options with MoT⁵ and the affected property owners.
- C: *Ed Sykes:* Well you will have to do that quickly because we won't be here from November to April.
- Q: *Arlene Boon:* Why have some people received letters and some haven't relative to the highway consultation?
- A: *Dave Conway:* The consultation will take place November through to the end of January and will talk about the highway relocation specifically. The mail service might be an issue and I would like to know if you haven't received a letter because I would like to follow up on anyone that didn't receive a letter.
- C: *Clara London:* I have received one of the letters so that means I will be affected - what happens if I say no I don't want the highway?
- Q: *Pat Enderlin:* Did I understand that privately owned lands would be flooded? When talking about BC Hydro land was he (Andrew Watson) talking about land that would slide?
- A: *Andrew Watson:* There is the historical safe line and flood line and it is about 50% of the properties that would be affected. So there are a number of considerations around the highway, impact line and till investigations that could change that number.

Page 24 – Land Use; Agriculture – Siobhan Jackson

There were no comments received.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effect

There were no comments received.

Page 27 – Information Item – Transmission Lines

- Q: *Doug Summer:* My question is in relation to how we can truly evaluate what the potential agricultural productivity of that valley might have been. There are a number of us here that know how intensively the valley was used 40-50 years ago and the reason it is not used like today is because of

⁵ Ministry of Transportation and Infrastructure

the BC Hydro ownership of the land. How will you determine what the value would have been if it has already been lost?

- A: *Siobhan Jackson:* The regional context is important to understand and understand how the land is being used. The regional context in how the land will sit.
- C: *Doug Summer:* The real value will never come to light.
- C: *David Butterfield:* This is about the ALR⁶ and the people who would have been farming it and there has been a recent case in which the Supreme Court ruled against government and said that everyone has the right to the unmolested right of occupation of their land. You (BC Hydro) have been molesting everyone's rights. You people here can file a complaint with the Human Rights Tribunal because these people are violating your rights. You have that right and I suggest you file otherwise you are getting the shaft.
- C: *Ross Peck:* On the land use issues, my written comments echo what Doug Summer said and I have a concern about the process and the weighty material being thrown into the environment – at the end of the document (Discussion Guide) and it doesn't give adequate time to address the issues. I also object to the section on the transmission lines and property line discussion and the fact that there wasn't adequate time allowed to discuss it. My final point is if this dam does go ahead you have precluded a lot of other options. For example, there was a coal exploration down the valley and anthracite coal was found and while it didn't prove out it wasn't considered – there are lot of options but the government is basically using the body of water (Peace River) for one use.
- C: *Leigh Summer:* There is a lot of opposition to this project and I would suggest to Premier Campbell that he come up and debate some of these things – I would throw that out as a challenge because we have a right to hear from the government and they are pre-concluding the process.
- C: *David Butterfield:* He (Premier Campbell) doesn't have the guts to open the legislature and be questioned by the NDP so why would he come here?

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Dave Conway

⁶ Agricultural Land Reserve

Thank you all for coming and remember that the deadline for consultation submissions is November 30th. There will also be lots of opportunity for feedback during Stage 3.

FINAL DISCUSSION:

Q: *Ross Peck:* I have process question - I spent about an hour on the internet trying to find this document (Discussion Guide) and then I burned up my printer printing it. Would there be a problem for the people that participate in these meetings to have these documents sent to them. A PDF document would be a lot easier.

A: *Facilitator:* I will find out and will report back.

A: *Dave Conway:* A consultation office has just opened, a half a day a week, in Hudson's Hope, Tuesday afternoons in the Pearkes Center.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 9:05 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

DAWSON CREEK LOCAL GOVERNMENT MEETING

October 8, 2008

Notes from a meeting held with local government and representatives of the Site C Project Team on October 8, 2008 at the George Dawson Inn, Macoun/Davis Room, 11705 – 8th Street, Dawson Creek, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Cam Matheson, BC Hydro
Andrew Watson, BC Hydro

STAKEHOLDERS: Marilyn Belak, Councillor and (Acting) Mayor
Alvin Stedel, Councillor

The meeting was called to order at 12-noon.

KEY THEMES:

- Participants were interested in preferential rates or a reduction in rates to reflect shorter transmission distances.
- Participants suggested that the Fraser Basin Council model, or a similar model, be considered to manage watershed issues and infrastructure improvements over time, particularly if Site C were to proceed.
- Participants asked if regional colleges could establish education programs to increase the capacity of local people to be involved in working on aspects of Site C development.

1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders
Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator
Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

There were no comments.

Page 2 – Environmental Assessment and Other Regulatory Processes

- Q: *Marilyn Belak:* Regarding the Dunvegan proposal as you are talking can you relate that project to yours because it doesn't seem like there is a group to manage water effects on the river – can you speak to the accumulative effects the projects could have?
- A: *Siobhan Jackson:* With respect to the accumulative effects that is part of the environmental assessment review process. The Dunvegan project has just finished their environmental assessment review application and will be going before a panel hearing and they face the same requirements. Regarding joint work on the river, ice modeling is done in a cooperative manner with Alberta in a joint task force to manage of ice effects downstream and BC Hydro has participated in developing the common ice model. Both of the projects are essentially non-water regulating projects and we will be talking more about that later. Site C will be essentially passing all of the flows that come in out again within a designated time line and Dunvegan is a run-of-river so likely the interaction between that and Site C would be very minimal.
- Q: *Marilyn Belak:* What about the Peace Athabasca delta?
- A: *Siobhan Jackson:* Similarly, there would no effect downstream to the delta. The effects of Site C would be localized and relative flows from Site C are localized.
- Q: *Marilyn Belak:* What about a series of run-of-river and icing?
- A: *Siobhan Jackson:* In Quebec there are some projects where the river flows north and perhaps the Churchill in Manitoba are examples of large hydro diversion systems. The Peace River is not a diversion-based system.
- Q: *Marilyn Belak:* What I mean, with a series of run-of-river, is what that does to erosion?

- A: *Andrew Watson:* With respect to the geo-morphology of the Peace River and flows downstream they will be changed from a river to a different environment – downstream will be a little spread out and it will be unlikely to affect the geo-morphology of the river however that will be the subject of one of our studies. The flow of sediment is another topic that will be studied and downstream of the dam there may be some sediment but again that will be studied.
- Q: *Marilyn Belak:* The Kiskatinaw River would be our concern and I see the project closer to home and looking at our water management and watershed; and keep in mind that part of the outcomes could be to get that watershed managed with something like a Fraser Basin Council. This would be a long term goal. The Kiskatinaw River comes in just before the south bank downstream of the Pine River and upstream from Clayhurst. If there are problems in the river and other contaminants you might point to the Kiskatinaw River and it is very difficult to get management over your drinking water resource and we would suggest something like that management model.
- A: *Facilitator:* Please make sure that you make that comment on your Feedback Form.
- A: *Siobhan Jackson:* Water quality monitoring stations have been established since 2002 so we have two data points where we could share baseline data although I am not sure about the functionality of all of the data loggers.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power – Dave Conway

- Q: *Marilyn Belak:* I feel a little bit used up here because there is nothing for us in the way of transmission credit and we don’t get any lower rates or even a tax credit or bonus in any way and now with the new formula we are paying as heavily as everyone else.
- A: *Dave Conway:* Transmission costs are borne by the bulk ratepayers in the province and the largest bulk is borne by the lower mainland but Cam Matheson will be able to provide further information regarding that.
- Q: *Marilyn Belak:* I can see that and I know about the aging infrastructure and diversion however we continue to subsidize the transmission and projecting forward and having electricity available closer to home would provide a psychological and economic benefit if something could be attached for the transmission.
- C *Facilitator:* The point is that because the Peace River Region bears the major power producers why don’t people here get a break on transmission costs?
- A: *Cam Matheson:* Once a project is in place and the grid is charged it is like a bathtub with drains coming out of the bottom and a huge number of taps coming out at the top and the biggest drain is the load center and what is in

the bathtub is the grid and it is not distributed on a regional basis so there is no sense that one region should pay more.

- C: *Alvin Steele:* Those legacy projects are set up to make people feel better. But sometimes when we buy power, when it is cheaper, it comes back up to us.
- C: *Cam Matheson:* Or when there is a power outage in the Peace region.
- Q: *Marilyn Belak:* I am not just looking at a money grab but again with the transmission and the long distances I suppose there would be options but we have so little options regarding transmission lines – what about parallel lines taken off to ensure a real sustainable local unit and then feed back into the big pool?
- A: *Cam Matheson:* Distributed generation where they have their own source off the grid and they pay a net electricity bill once they have taken off what they take off and put back on the grid. We don't have the infrastructure yet but that is coming.
- C: *Marilyn Belak:* With a big power project people will feel better if they get more power out it.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options – Dave Conway

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

There were no comments received.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Cam Matheson

There were no comments received.

Page 8 – Resource Options Comparison

There were no comments received.

Page 9 – BC Resource Options Comparison

- The first thing we do is access demand and then we forecast and the key drivers are in-migration and economic factors and then we connect with our large customers to understand their drivers.
- This forms the basis of what is needed to fill any energy gap that exists.

- Both supply and demand side options are looked at. Supply side options are looked at and what is not considered, for example, nuclear power is not considered because the provincial government has said that it is not on the table.
- The options must be commercially viable and wave and tidal are not commercially available – they are not there yet.
- In the resource options report we look at intermittent, wind and small hydro and then there are base projects and large hydro and each have their own set of characteristics and what they can bring to the system in terms of reliability and unit energy cost.
- We are 90% large hydro here in BC and that sets us apart on the continent and we want to ensure that what we are adding synchronizes with the system.
- Then we put all this into the resources options report and this is the basis of the portfolio we build and test for the best one to put into the long term plan.
- The key characteristics of our current system is flexibility and we can store energy in terms of the water in our reservoirs and this allows us to respond to the larger market and we want to ensure that we continue to do that.
- Once we have looked at all that we put together test portfolios and test them for cost-effectiveness because we want to maintain that low rate and also ensure that we maintain a high degree of reliability.
- Then we select one and that will form the basis of the long term plan and then we file that report with the regulator, the British Columbia Utilities Commission and then we defend that in a quasi-jurisdictional hearing and eventually the regulator will decide and then we will go about building the components part of the plan.
- Site C is one of the options we will look at and it has a high degree of capacity, cost-efficiency and reliability and quite likely we will always consider Site C but the decision to proceed with Site C is a provincial cabinet decision.

DISCUSSION:

- Q: *Marilyn Belak:* With respect to the cost of developing run-of-river is that the only option in the end is to sell everything into the grid? Are the costs of private development on a contract basis – RFP¹ and the taxpayer pays the burden and BC Hydro buys the power or does BC Hydro at this point put a limit on things? Are there any companies that would be building a project that sells at market value their energy?
- A: *Cam Matheson:* One of the key things we look at is the energy plan and in 2002 the government produced its energy plan and the key touchstone of that plan was that BC Hydro could only develop large hydro and

¹ Request for Proposals

everything else would be procured and that more new additions to the electrical system would have to come from independent power producers and we buy that energy and in order for them to get financing they must have a long enough contract with BC Hydro.

- A: *Dave Conway:* One of the other things the government did in 2002 was separate the transmission side from BC Hydro and that was in part to maintain trading ability in the US and the other part was to allow for large industrial producers to wheel the power to the grid.
- A: *Cam Matheson:* What people often believe is that the independent power producer can sell the electricity into the grid and then at some point take it out and sell that power independently to the US but that is not case only BC Hydro can sell the electricity once it is in the grid. Some of the big independent power producers, like Alcan for example, can sell for US export through a BC Hydro subsidiary called PowerEx however that doesn't happen very often.
- A: *Andrew Watson:* The government has made it clear that Site C will be owned by the government however that doesn't necessarily mean that BC Hydro would build it if it went ahead – likely it would be built by a private contractor.

Page 10 – Map of Peace River Country – Andrew Watson

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

- Q: *Alvin Steele:* The issue by Chetwynd is supported by the Regional District to ensure that the bridge is open to the general public and to enhance the Jackfish Road. Our community has not been in support of that because we believe that are many more roads that need the maintenance.
- A: *Andrew Watson:* This opens the door to a regional discussion and BC Hydro hasn't an opinion either way however we haven't completed any of

the type of studies that would have to be undertaken if this went ahead and the Ministry of Transportation would need to be involved.

C: *Facilitator:* MoT would have to be involved and any feedback would have to be taken to them for consideration. What you think about this is important and I would encourage you to provide that feedback.

C: *Marilyn Belak:* Already we need more road maintenance to be done and this proposal would have huge impacts on us in terms of the economy and tourism. Already it seems that the Taylor Hill ‘sucks’ up so much money. Our Council will take a position on this and provide feedback.

C: *Alvin Steele:* They (MoT) may decide to put in the bridge even if Site C doesn’t happen.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

There were no comments received.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Andrew Watson

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

There were no comments received.

Page 18 – Reservoir Preparation Considerations Table

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead

Q: *Marilyn Belak:* Burning will likely be looked upon less favorably 10 years down the road and you will have to look at other options.

A: *Andrew Watson:* Burning can be efficient but all options would be thoroughly assessed. Generally we see burning as a viable option.

Q: *Marilyn Belak:* With respect to the stream side management issue would there be an opportunity to put that into the technical schools and set up a management course?

A: *Andrew Watson:* While shoreline management has a lot of expertise around it clearing doesn’t have a lot expertise because reservoir clearing hasn’t been done for a long time. That is a good suggestion.

Q: *Marilyn Belak:* Have you thought about leaving a reserve instead of public access?

A: *Facilitator:* The consultation summary report for the previous consultation said that 58% of the respondents wanted more access and the other 42% wanted the same or less.

C: *Siobhan Jackson:* The shoreline is approximately 280-kilometers in length and probably there will be room to accommodate and balance competing interests. For example when I worked for the Parks Department we had a saying that we “harden the front country to protect the back country”. Now, we do it around the reservoirs for security reasons to draw people away and instead create an attractive space for people safely away from the more dangerous areas.

Q: *Marilyn Belak:* This has all been very interesting and I remember when my brothers worked on the original WAC Bennett dam site - you have come a long way.

A: *Dave Conway:* This is just a reminder that November 30th is the cut-off date for feedback and as to the low turnout today there is the possibility of scheduling another meeting.

C: *Marilyn Belak:* Our Council did have a discussion about the consultation and there wasn't a great deal of questioning - the consensus was that Council liked the way the process was going.

*1:19 p.m.

Marilyn Belak departed.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – Andrew Watson

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

Q: *Alvin Steele:* Where is the concrete?

A: *Andrew Watson:* Concrete will be used on the spillway and power intake and they are small structures in relation to the whole dam.

Q: *Alvin Steele:* How high will the dam be?

A: *Andrew Watson:* 60 meters high with shallow slopes.

Q: *Alvin Steele:* When they built the WAC Bennett Dam they were worried about the weight is that a consideration here?

A: *Andrew Watson:* This dam has different challenges from WAC Bennett but we will be addressing them.

- Q: *Alvin Steele:* Water flows through this dam – water does transition the dam, is that right?
- A: *Andrew Watson:* Yes, that is correct - water does flow through although it is very slow.
- Q: *Alvin Steele:* Is the reason we don't drive across the dam for security reasons?
- A: *Andrew Watson:* That is a specific security issue - the road down to the dam will have a lot of setbacks and is not necessarily a very good access.
- C: *Dave Conway:* We do still allow access across the WAC Bennett Dam but the intent there is to have people report their intentions before crossing.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Siobhan Jackson

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned

- Q: *Alvin Steele:* Do you see many garter snakes because we don't have many of them?
- A: *Siobhan Jackson:* Garter snakes are not an endangered species and here they would be at the very end of their range. We have habitat studies that look at what they need and whether there is a match there or not. We will learn more about that next year after we do the survey.
- Q: *Alvin Steele:* What does a Peace River and Dinosaur Reservoir Thermal Regime and Total Gas Pressure study mean?
- A: *Siobhan Jackson:* That speaks to the oxygen content in the water and is commonly associated with high head dam and pressure changes.
- Q: *Alvin Steele:* What does fluvial geo-morphology mean?
- A: *Siobhan Jackson:* That is what we spoke of earlier and refers to sedimentation in the river.

Page 24 – Land Use; Agriculture – Siobhan Jackson

- Spoke of the role of the land and the capability of the land that will be considered in future studies.
- Reported that 5340 ha will be flooded under the reservoir – historically it was roughly 2700 ha of Class 1 to Class 3 and 100 – 200 ha of Class 1 land however the new studies will be relooking at those numbers and the changes to the land and how it is used.

Page 25 – Forestry; Mining and Oil and Oil and Gas- Siobhan Jackson

There were no comments received.

Page 26 – Potential Land Use Effects

There were no comments received.

Page 27 – Information Item – Transmission Lines

Q: *Alvin Steele:* How long will it take to fill up the reservoir?

A: *Andrew Watson:* Between 10 and 20 days or about three weeks and we would maintain minimum flows in the river during that time however it is all dependent upon the time of year.

Q: *Alvin Steele:* I think to build a reservoir like Williston today I think it would be almost impossible. I guess if it wasn't here there wouldn't be a Site C. If you have a reservoir and then down the road it is decided to use the area for agricultural land again could it be drained and used again for agriculture?

A: *Andrew Watson:* There would be issues associated with that going from the changed environment that would have stabilized over time and then changing back. You would have to create a drainage scheme to adapt it back to the original assessment and a full environmental assessment review would be required.

A: *Siobhan Jackson:* There are places, in the world, where a large hydro dam was decommissioned and there was a long period of transition and a different end state.

Q: *Alvin Steele:* Wouldn't the agricultural land still be there?

A: *Andrew Watson:* There could be technological solutions although that is hard to envision once you have that large a dam.

C: *Alvin Steele:* I guess that the answer is that you are not sure. In terms of scheduling another meeting of Council it might be beneficial to do that with the new Council once the municipal elections are over.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation

Thank you very much we really appreciate you coming out.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 2:00 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

DAWSON CREEK MULTI-STAKEHOLDER MEETING

October 8, 2008

Notes from a meeting held with multi-stakeholders and representatives of the Site C Project Team on October 8, 2008 at the George Dawson Inn, Macoun/Davis Room, 11705 – 8th Street, Dawson Creek, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Cam Matheson, BC Hydro
Kate O’Neil, BC Hydro
Andrew Watson, BC Hydro
Jack Weisgerber, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Ken Barrett
Anderson Babomey
David Blaney
Charity Blaney
Fern Blaney
Melody Blaney
Arlene Boon
Ken Boon
Carol Bowd
Lee Bowd
Lyle Braden
Murray Clark
Paul DeCosta
Ken J. Chambers
Mitchell Crossland
Wendy Crossland
Joe Figura
Dean Fisher
Alison Fraser
Harvey Glasier
Elina Gowma
Doreen Hadland
Luella Hadland
Randall Hadland

Al Harwood
Sandy Harwood
Verena Hofmann
Carole Hogg
Jim Inkster
Rupert Kirk
Darryl Kroeker
Brad Leoppky
Lorelei Leoppky
Marcheta Leoppky
Sandy Mayer
Wes Mayer
Tenneille Metz
Roy Mumby
Nick Parsons
Mark Phinney
Lynn Riply
W.F. Sandberg
Mike Sudmik
John Sudmik
Bert Veiner
Ruth Veiner
Norma Walker
Nellie Watson

Media: Tamara Cunningham

The meeting was called to order at 6:30 p.m.

KEY THEMES:

- Participants expressed a desire for BC Hydro to look more closely at other energy options before considering Site C, suggesting greater incentives for conservation and “distributed” generation.
- Participants requested additional information regarding environmental studies, clarification about the need and timing of baseline studies and when impact or effects studies would be completed.
- Participants wanted BC Hydro to ensure that any public access to the Hudson’s Hope road would create a viable, safe, alternate route to Fort St. John.
- Participants expressed a strong desire to preserve agricultural land in the Peace River region, particularly the valley bottom land that would be flooded by Site C.
- Participants were generally opposed to Site C.

The record notes, to accommodate a request of several participants, the order of the presentations was varied to move the environment section up to and immediately following energy options.

1. Welcome and Introduction of the BC Hydro Project Team

Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. DISCUSSION GUIDE

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bchydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

Q: *Marcheta Leoppky:* Are there caps set on how much BC Hydro will allow to be produced through wind?

A: *Cam Matheson:* We haven’t set a cap for wind because we are not at that stage where we understand the full integration of wind in the system. I don’t know if we will but we are still in the process of studying it.

Q: *Marcheta Leoppky:* Alberta has caps, doesn’t it?

A: *Cam Matheson:* Yes and they have raised them recently.

*6:48 p.m. The meeting was interrupted by a group of protesters.

C: *David Blaney:* We have deep concerns about the loss of the valley and about the consultation process. We would like 2 minutes to speak to those

concerns right now. We are concerned about some of the information – that some of the information is unsubstantiated.

Seven Unidentified Speakers: We are citizens united to save the Peace and:

- Defers: BC Hydro defers studies about detriments yet benefits are quantified without studies;
- Recreational: We believe that recreational opportunities will be reduced yet BC Hydro flaunts it as a benefit;
- Misleading: Some statements are misleading and BC Hydro flaunts it that the dam will be green energy but how can it be green by putting the green under 75 feet of water:
- Edited information: BC Hydro edits all minutes – why aren't the notes verbatim?
- Accountability: Millions of dollars are spent on the consultation but who determines how adequate the consultation was?
- Withheld Information: the public is not allowed to see, for example, the data collection around the social economic studies;
- Immoral: BC Hydro bribes communities with amenities not related to the dam.

*6:51 p.m. The protestors departed the meeting.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options – Dave Conway

C: *Joe Figura:* I don't think that legacies should be given to the communities because communities squander the money - I would like to see individual legacies and I propose that power be sold at 2 cents a kilowatt to everyone that lives with 325 kilometers of Site C.

C: *Marcheta Leoppky:* Can we do this?

A: *Cam Matheson:* There is currently a barrier to that proposal and that is BC Hydro is set up on a tariff basis and there would have to be restructuring of BC Hydro before that could happen.

Q: *Joe Figura:* You can get the money for all the communities but you can't find money for me as an individual?

A: *Dave Conway:* We aren't defining what the legacy could be.

Q: *Ken Boon:* I notice that this has come up several times but cheap power would turn into a monster and we would end up squandering more power and then we would have to build more dams.

A: *Cam Matheson:* It may be worth pointing out that the system in the whole province is predicated on the idea of regardless where you live that you can come in and have access to power and pay the same rates that we all pay – the cost is spread out over the whole population and this would have

to be changed if we went in a different direction – the provincial government sets the tariff.

C: *Bill Samberg:* I propose that the price for power in BC be lower and that the power to the states be higher – that is the fairest way to do it.

C: *Randall Hadland:* Right now there are a wide range of tariffs in the province – commercial, industrial, residential etc. so it is not as though there isn't cheaper electricity available and the promise made to local residents when they built the WAC Bennett Dam was that there would be cheap power and there is really cheap energy for industrial users if anyone wants to come and use it.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C
Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

These topics were not presented.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Cam Matheson

There were no comments received.

Page 8 – Resource Options Comparison

There were no comments received.

Page 9 – BC Resource Options Comparison

- In the context of the long term plan – we set out plans every two years and file those plans with the British Columbia Utilities Commission.
- The first thing we do is take a long-term view of energy in the province - called load forecasting and as things change we adjust the load forecast and a good example of that is right now and we are closely following the banking crisis in the US.
- Load forecast forms the basis of the long term plans in the 5, 10, 15 time frames and it gives us an idea of how to meet the new demand and this goes to the core of our planning.
- Secondly, we look at how we can conform to current government energy policy – in 2002 the energy plan said that BC Hydro will no longer be the builder of energy with the exception of large hydro and that we would buy the additional resource. As well the transmission part was split off into British Columbia Transmission Corporation.
- In 2007, the second energy plan said that BC would become energy self-sufficient by 2016 and we have embedded that into our plans.

DISCUSSION:

- Q: *Rupert Kirk:* Alcan, where do they fit in? They have an agreement with you, don't they?
- A: *Cam Matheson:* Yes, BC Hydro signed an energy agreement, with Alcan, about a year ago and Alcan is like an independent power producer.
- Q: *Rupert Kirk:* I see that it is about 13,000 gigawatt hours that we could conserve and I would like to see rates go up and grants go out to those folks that conserve. In England we always turned out the lights when we left a room because electricity was about five times more expensive that it is here. I believe in user pay and "help those that help themselves". I think we should encourage people to build energy efficient homes and I would like to see that encouragement in the north. I know that the new building codes are addressing this but we need more conservation as a viable alternative to put off building the dam. The \$6 billion that it would cost to build the dam I think that we should give that to everyone in province to build an energy efficient home.

Cam Matheson continued:

- At least 50% of new demand will be met through demand side management (DSM) practices.
- There are three components of the program: (1) programs to get people to change behavior, (2) work on codes and standards to form provincial and municipal bylaws; and, (3) finally the use of rates to incent people.
- Demand Side Management represents about 75% of new need.

DISCUSSION:

- C: *Rupert Kirk:* (DSM) should be at least 75%.
- Q: *Randall Hadland:* In 1982 at the BCUC¹ hearings it was agreed that BC Hydro could save 50% of the energy it uses so we have not come a long way since then and we have a long ways to go and we are not going very quickly. With respect to the load forecasting – what percentage of the next 10 and 15 years is for industrial use?
- A: *Cam Matheson:* Industrial, residential and commercial are BC Hydro's three main bases and they track similarly - about 40% of the energy consumption is industrial and it will remain that way.
- C: *Joe Figura:* I have already paid for what I use – how do you figure that?
- C: *Rupert Kirk:* Any amount of power you use you pay the same rate. As far as I am concerned I only pay \$600 a year for power and I could be more conserving while others just blow that away.

¹ British Columbia Utility Commission

- C: *Joe Figura:* How can you control that?
- C: *Marcheta Leoppky:* My concern is the people of BC own BC Hydro and we have seen other crown corporations sold in the past and when water becomes more valuable than electricity how do we know BC Hydro won't be sold?
- Q: *Brad Leoppky:* I think that all new construction has to include between 10% or 20% self-sufficiency and it is one way of off-setting demands rather than building bigger hydro production and that answers the question around new demand. If construction was mandated we would see that – I don't know if BC Hydro has any say in that but what it does is off-set in a way that makes everyone responsible. Dawson Creek is looking at a windmill and they do off-set its needs. How long will it take to pay off that \$6 billion it is projected to cost for Site C because that it is an excessive amount of money when you can mandate measures?
- A: *Cam Matheson:* You are talking about distributed generation where customers sell back to the grid and pay the net amount. The comparison to Europe is a good one and long ago they realized how expensive energy was. We don't have that yet but I believe that it will come and we will start to see these things happen all the time.
- C: *Ruth Veiner:* I think this is a follow up. I am totally opposed to Site C. My concern is with the NAFTA² agreement and I am very concerned about water and how convenient that we have dammed and stored that water for those in the south. We have a mega dam and a long trench south – you need to think about it.
- C: *Ken Boon:* I like what Brad (Leoppky) said.
- A: *Cam Matheson:* Power has been so abundant and cheap it hasn't been necessary to develop the infrastructure to go along with it, for example, with respect to the meters there will come a day when the meter is right in the kitchen and the homeowner can see how much energy they have used that month and whether they can put off washing clothes etc. In Europe they are much more advanced.
- Q: *Ken Boon:* Shouldn't we be going after that right now – provide incentives for individuals to do stuff like that. Put in measures that are environmentally friendly and save energy. A good incentive program would get people doing that and the power is produced where it is needed. There is also the added benefit that if you conserve power you might get a cheque at the end of the month – this would be a win/win situation.
- A: *Cam Matheson:* I was only saying that in 10 years the market will be saturated but right now we are starting on that and we are well on the way

² North America Free Trade Agreement

but it won't come without cost, for example, the smart metering program for all of British Columbia will cost 1.5 times the cost of Site C.

- C: *Ken Boon:* That will be a good investment.
- Q: *Doreen Hadland:* I was sitting in the BCUC hearings – when they were talking about re-lamping? We learned that meant changing light bulbs to the energy efficient light bulbs. Do you have figures on what that program has produced in the last 26 years?
- A: *Cam Matheson:* Might be a few thousand gigawatt hours in an accumulated way. That program didn't immediately ramp up in 1982.
- Q: *Doreen Hadland:* Surely there have been some many studies that you could you dig up some figures because if that program wasn't successful how will we believe you about the future programs you are talking about? Conservation is very valuable and I don't feel that enough attention is given to the total potential. Our total energy bill is \$400 a year and we haven't suffered and we can live that way but there has to be incentives for other to also get that through there thought processes that we can live that way. I would like to see some figures – that program is 26 years old.
- A: *Cam Matheson:* Power Smart began in the mid-1980's and was a pretty good program but it was pretty marginal in terms of the numbers we are trying to get out of the demand side management now and it was almost more of a marketing program and awareness program as opposed to getting real volumes of conservation met – we are now on a completely different track with the size of the power smart program and the growth that it is going to have to have in the next ten years to meet these targets – it is the growth area of our company for sure.
- C: *Brad Leoppky:* That lamp change was off-set by changing demands and I have taken part in that extensively. That program was off-set by the advent of all the electronic devices and if we hadn't that program we would be even further behind than we are now – it is a straight wash.
- A: *Cam Matheson:* One of the interesting things was that as the modern hydro-electric fleet was completed in 1984 with Revelstoke the province went into a surplus situation that lasted until 2004 and from that perspective we didn't put in conservation programs because of the huge surplus. Now we are in a net deficit with energy and we are now importing it so it has switched around.
- Q: *Lee Bowd:* I may have missed this because I came in late but does BC Hydro's mandate cover distribution to all customers in the province? I was involved in rural power extensions through another branch of the government and found many individuals that were off the grid and they were stymied because BC Hydro had the mandate and stalled independent power producers and when you think of the diverse nature of BC's

- geography and the opportunity to expand to other parts of the province is there opportunity to develop power and sell to the grid?
- A: *Cam Matheson:* Yes, BC Hydro still has the distribution arm to retail customers except for a part of the southeastern area of the province. There are still some non-integrated communities and for too many of those times we serviced them with diesel generators. Now through the *Remote Community Electrification Program* we are helping those communities serve their needs.
- Q: *Paul DeCosta:* What is the cost for Site C and how long would it take to pay it off?
- A: *Andrew Watson:* It is projected to cost between \$5 to \$6 billion and with respect to the other question about payback the answer is in the context of supply options that are on Page 7, of the Discussion Guide. There is a bar chart that compares other major supply options and Site C, on unit per electrical cost, is competitive.
- A: *Cam Matheson:* How long would it take to pay off? That is a tricky question and it is complex, we always carry debt and stretching it out 20-years – conceivably it might never be paid off.
- A: *Andrew Watson:* Those decisions haven't been made around how much debt, debt rates and how long it should be spread out. Generally speaking with respect to the heritage resources they have largely been paid off and are now reaping benefits for the ratepayers.
- A: *Cam Matheson:* The \$6 billion is an awful large amount of money but when you look at the other options it is quite cheap and it has a dependable capacity of 900 megawatts and that is a big useful project in the system. If we tried to achieve those 900 megawatts through an independent power producer it would cost far in excess of what is proposed for Site C.
- C: *Brad Leoppky:* WAC Bennett borrowed from the US to build the WAC Bennett Dam and it was just paid off about 10 years ago and as part of the condition to get the borrowed money we had to sell cheap power to the US.
- A: *Cam Matheson:* When we build a large project financing is borrowed through the international banking community. It is not true that we are selling cheap power back to the States, not in the context of the WAC Bennett Dam, for the Columbia, the Columbia River Treaty was signed and we store water in Canada and release it in a sub-optimal way to help Americans with their flood protection and in return they give us energy back every day called the downstream benefits and that might be what you are thinking of.

- Q: *Bill Samberg:* I am interested to know if it (Site C) will be publicly owned or will it be owned by private share holders because as we have seen in BC shareholders want profits and then they sell out?
- A: *Andrew Watson:* Should Site C be built it will be publicly owned. Financing through the private sector is an option but ownership will be by the government.
- C: *Dave Conway:* It would be owned by the ratepayers of the province.
- C: *Ken Boon:* In response to Cam's (Matheson) comment about Site C being cheap remember that it comes at a huge environmental cost.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead – Siobhan Jackson

There were no comments received.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned

- Q: *Darryl Kroeker:* I am wondering when you will present the information from the studies and what the environmental impacts will be. There is information on proposed recreational benefits and power benefits but the information on exact impacts, species impacts for example, when will we catch up with the rest of that?
- A: *Siobhan Jackson:* Comprehensively that will be available in Stage 3. We haven't done the impact assessment yet so we can't predict what would be the effect on those things until we understand the current setting and have the confidence in the data we have done, multi-years of data. Many of the studies we have started and I will talk about the fish index in particular where we will be utilizing information that has been collected since 2002, related to our upstream operations, so we are getting into our seventh year and continuing that and moving forward to understand the composition of the species in the reaches. We have been doing that with wildlife as well and we will have about 2 to 3 years of data studied and in consultation with Ministry of Environment and First Nations we will see if that is enough information prior to computing impacts on those species.
- Q: *Darryl Kroeker:* We are in Stage 2 and the approval process is before Stage 3, am I right?
- A: *Siobhan Jackson:* The rest will be produced in field reports – a field-based research program but it won't be related to impacts on certain species outside of the environmental assessment review process.
- Q: *Darryl Kroeker:* Don't you think we should have that information before?
- A: *Siobhan Jackson:* This depends on whether the government wishes to put us into the process and we can't put this out in advance of that process and

we don't wish to do it in a rush. We have less than a year to complete the studies however the environmental assessment review process will be longer.

A: *Andrew Watson:* For example, impact lines – shoreline impacts is one of the major impacts and in round 1 we quantified that and looked at erosion, stability, ground water and that work is one of the highest priority tasks in Stage 2 and will be available publicly once it is completed.

A: *Siobhan Jackson:* Bringing up some of the engineering programs is one reason why it can't be defined earlier and until it is defined you don't know what you are defining – it is impossible to define.

A: *Andrew Watson:* Historically, there was a shoreline study in 1982 by Thurber and 1978 study reviewed the entire shoreline and that is the best proxy for those impacts.

Q: *Ken Boon:* A lot of the baseline studies aren't done and aren't you going to run out time if a lot of the studies aren't done?

A: *Siobhan Jackson:* I would like to refer you to the time line on Page 1 of the Discussion Guide – we don't control that process and very likely it will take more than 2-years (Stage 3). We don't control the timeline and is a rough time line and will be lead by the Environmental Assessment Office and their requirements for information and in that process the proponent can take a year or so working with the regulators to finalize the terms of reference and the rules of what must be included in the eventual application. If you already have the data it might be shorter but if not it might be longer. This is an information requirements driven process.

Q: *Randall Hadland:* What base line studies are to be finished in Stage 2?

A: *Siobhan Jackson:* The ones initiated will be completed and some studies (creel and angler will last for 24-months) are multi-year studies and won't be completed within this stage but an interim report will be available and if the project continues to Stage 3 the data will move on.

Q: *Randall Hadland:* Will you be comparing with the 1978 studies?

A: *Siobhan Jackson:* We are using the information to go into this but the eco-system has changed over the past 30 years and it is while interesting it can't be relied upon 30 years later. What is the information base and relevant studies to understand the system today and how does it link with what we anticipated and what is useful for the environmental process will be studied.

Q: *Joe Figura:* There is a couple of couple of terms that I am not familiar with– limnology?

A: *Siobhan Jackson:* Understanding the lake and what to look at in a body of water in a similar area as Site C – we will gather preliminary information to build a model to predict later.

Q: *Joe Figura:* What does fluvial geo-morphology mean?

A: *Siobhan Jackson:* This is about the flow of the river and how it affects the sand and gravel in the river.

Q: *Nick Parsons:* I presume the agricultural value of the valley came in as part of the environment? I would like to give small presentation.

C: *Facilitator:* We are running short of time and I will come back to you but in the meantime we will continue with the presentations.

Page 24 – Land Use; Agriculture – Siobhan Jackson

There were no comments received.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

There were no comments received.

Page 27 – Information Item – Transmission Lines

- Spoke of the role of the land and the capability of the land that will be considered in future studies.
- Reported that 5340 ha will be flooded under the reservoir – historically it was roughly 2700 ha of Class 1 to Class 3 and 100-200 ha of Class 1 land however the new studies will be relooking at those numbers and the changes to the land and how it is used.

DISCUSSION:

Q: *Lee Dowd:* I was looking for the date of the brochure and there was no mention of the Forestry Land Commission and they are one and the same commission with the Agricultural Land Commission only they deal with forestry. Where is the decision made to only evaluate Class 1-3 soils – the majority of the soils are Class 4 and Class 5 soils?

A: *Siobhan Jackson:* The evaluation is not restricted and will include an evaluation of all of the lands in all the classes.

Q: *Mark Phinney:* Just to clarify the process for me – you have raised a number of issues around impacts and is this the stage during which BC Hydro is finding out answers or are you looking for input? With respect to Page 23 of the Discussion Guide are the results of those studies available to the public?

A: *Siobhan Jackson:* We will release final reports at the end of Stage 2 or earlier if available. On the land use side it is different from the baseline on the fish and wildlife side. The socio-economic baseline data collection references pre-existing reports including but not limited to: OCP³, census

³ Official Community Plans

data, Fort St. John 20-year planning process and trends. This is a data-mining exercise in talking to people that hold that information and that information is not generated by BC Hydro but if there are gaps there will have to be more studies. The process for the land use analysis is similar where we will go to the provincial tenure, capacity maps, knowledge of land base and rights to base. For example, the Ministry of Forestry, we will understand the management and tenure system and how it interfaces with the project's footprint and only the license holders can share information about their 5-10 harvest plans.

- Q: *Randall Hadland:* With respect to the size of parcels for agriculture and forest – BC Hydro discarded the small parcels in 1982?
- A: *Siobhan Jackson:* We will take that comment into consideration as the agriculture studies emerge.
- Q: *Randall Hadland:* Climate is so important and you haven't mentioned it?
- A: *Siobhan Jackson:* The local climate model is a study project and to feed into that we are developing a water temperature model and that is another reason why we can't do an impact study until we have a current climate model – we are collecting information to go into the environmental assessment review process.
- Q: *Randall Hadland:* Have you produced any recent information?
- A: *Siobhan Jackson:* You are asking about valley bottom climate stations and I am not aware of any.
- C: *Randall Hadland:* There has been one at the Clayhurst Bridge for about 20 years.
- C: *Ken Boon:* I know that the Ardill's have a weather station.

Page 10 – Map of Peace River Country –Andrew Watson

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

- Q: *Marcheta Leoppky:* Where is the fill coming from?
- A: *Facilitator:* That is the next topic to be discussed.
- Q: *Doreen Hadland:* Are any building of roads going on right now?
- A: *Andrew Watson:* No, no new roads, the studies are using the existing roads.
- Q: *Randall Hadland:* What studies?
- A: *Andrew Watson:* There are engineering studies and the consultants are travelling there on networks of existing access roads.
- A: *Siobhan Jackson:* Generally the study area includes the main stem of the Peace to Alberta, the river and transmission corridor and includes two

kilometers out from the river and a 500 meter buffer on either side of the transmission line.

Q: *Ruth Veiner:* There are a number of studies going on that are preliminary but are there other studies on if we don't build the dam and are there any studies to preserve agricultural land?

A: *Siobhan Jackson:* With respect to the agricultural lands generally within the socio-economic topics the general approach for Stage 3 is a prediction of the future with or without the project and that includes that horizon.

Q: *Ruth Veiner:* What about the amount of food produced if you are serious about the 100-mile diet?

A: *Siobhan Jackson:* We don't have a study about that at this time.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E) – Andrew Watson

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

Q: *Mark Phinney:* Is the road being built such that a spring freshet would not compromise it?

A: *Andrew Watson:* Yes and we may have to protect the shoreline.

Q: *Mark Phinney:* Is the nature of the bridge to be built like the one at Clayhurst?

A: *Andrew Watson:* It will be two lanes approximately 3 meters high and this is one of the areas we are updating in the studies.

Q: *Jim Inkster:* My concern about opening the bridge to the public is no problem, however if there are any discussions about the highway can it be an alternate if all things are being equal? We stitch the other one together on a regular basis and the design needs to go further than this plan regarding access into Fort St. John and the cost will have to be factored into the building of the dam because the road needs to be substantial. Access is great – my only concern is that the road be substantial and the costs should be factored into this. We do have problems on the south side of Peace now with the hill and this would eliminate those problems.

A: *Andrew Watson:* I understand that from a planning and engineering perspective however BC Hydro doesn't have an opinion either way regarding public access on the bridge.

- A: *Facilitator:* This issue will be discussed with MoT⁴ and others.
- A: *Andrew Watson:* Yes and to be clear the feedback will be sent directly to MoT and others responsible for regional planning and someone would have to take responsibility and that would need to be factored into the planning.
- Q: *Marcheta Leoppky:* Do you have any solution for sloughing on the banks of the river?
- A: *Andrew Watson:* Shoreline management and how it will behave will be studied using the best methodology to predict effects on the shoreline and that is the work we are doing right now. It would be unfeasible to protect the entire shoreline but Hudson Hope will be protected.
- Q: *Marcheta Leoppky:* Historically the river has been blocked in the past by a slide and I would assume that you might increase the risk when you flood the valley? This is all unstable area.
- A: *Andrew Watson:* The Ache slide went in fast and blocked the river for 12 hours and that won't change the likelihood of an event but we need to look at the potential for landslide generated waves and that is what we will study and will be part of the impact line study.
- Q: *Lee Bowd:* I am assuming from the diagram and comments that it is intended that the bridge will be the permanent power house access and that there will be no public access across the dam top?
- A: *Andrew Watson:* Correct, for security reasons there will be no public access to the dam top.
- C: *Lee Bowd:* I have been told, about 15 years ago, that industry has contingency plans around that bridge and that once it goes in trucking rates will change because the assumption is that once it is in it will be used. I think there is an assumption that this will be a less cost route and the trucking industry would expect that it be open. However, like Mr. Inkster pointed out, there are other considerations and these include: safety standards, size, access roads and the stability of the slopes on the south side and look at the road from Septimus to the power house because that is the same access slopes as south Taylor and all the roads will need to be engineered against sloughing. MoT needs to be a major part of future discussions.
- C: *Ken Boon:* Then you will have one more hill that will slough when you cut into the hillside. I am surprised that you are not getting hammered harder tonight on this point. One of the bad points of this bridge will be around wildlife issues and it will be a burden to taxpayers to maintain another high grade road.

⁴ Ministry of Transportation and Infrastructure

- C: *Brad Leoppky*: The First Nations will have quite a bit to say about this and I don't think the roads will be upgraded too quickly.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Andrew Watson

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

There were no comments received.

Page 18 – Reservoir Preparation Considerations Table

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead

- Q: *Bill Samberg*: It is very important to note the fact that Fort St. John, Chetwynd and Dawson Creek get an earthquake every year and this area in the Cambrian Shield and the edge of the Shield is just on the east side of Tumbler Ridge and it comes up an inch to two inches every year – did you get that information?
- A: *Andrew Watson*: There was a maximum design earthquake study and that is being updated and is on-going work.
- Q: *Bill Samberg*: We had quite a scare with the sink hole in the WAC Bennett so this is quite important and it is coming inland. This gives me concern about the dam we are building.
- A: *Andrew Watson*: That is the trend across BC Hydro that design standards have increased - that is work that we are doing and I am aware of those earthquakes.
- C: *Bill Samberg*: At Knoosa there is a cave there that we are watching that edge move.
- Q: *Dean Fisher*: What I am concerned about is that these studies will take years and years but we are seeing changes on a yearly basis – how will you keep up with the changing situation. Salmon stocks are going down, agriculture is growing.
- A: *Siobhan Jackson*: For example, studies for the environment will look at all the data and trends and season variability will be looked at...
- Q: *Dean Fisher*: Do you know how many years it has been with the bear attacks on the coast and you don't even understand what is going on down there so how can you understand what is going on here?
- A: *Facilitator*: Thank you, we take that as a comment.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – Andrew Watson

- Q: *Marcheta Leoppky:* You are not going to have the moraine that they had for the WAC Bennett Dam, are you?
- A: *Andrew Watson:* Subsequent work has shown and it was decided that the material would require too much blending and we would prefer glacial till. We are looking for a glacial till source and the assumption is that it will be sourced within 10 kilometers of the dam and then we are looking at access issues etc.
- C: *Ruth Veiner:* I understood that this was a consultative process but what I am hearing is a whole bunch of information and it seems that consultation is a two-way process and is not a dictator process and this upsets me because I value my time. I find this a bit of an effort in frustration and there are people that want to mention things, but we are told that we are running out of time and that we are nearly at the time we are closing.
- A: *Facilitator:* We will take the comments now but people have asked for information that is in the Discussion Guide and have asked for the very information you are receiving today.
- Q: *Ruth Veiner:* I am hearing across the room that the gentleman has information on agriculture and I am concerned about that and I would like to hear those comments and I would like to express my own concerns.
- A: *Facilitator:* Please go ahead now and express your concerns.
- C: *Ruth Veiner:* “Let me start by saying that I am totally opposed to Site C because of the following reasons: human health issues – building up of static electricity makes metal equipment ‘shocking’; people with pacemakers and other heart conditions cannot tolerate the magnetic field which is emitted by the hydro lines; outdoor camping and other recreational activities cannot be carried on under the power lines. Environmental impact – the magnetic field under the power lines produces an unhealthy environment for wildlife as well domestic animals, e.g. the free grazing offered to livestock after the present transmission lines were built, caused many health problems in livestock; having power lines going from the northeast corner of BC to the southwest corner is not economical due to the loss of power by line leakage for many thousands of kilometers; this will have a negative impact on wildlife all along the way. Loss of valuable farm land – another dam would cause the flooding of thousands of acres of prime farm land which is capable of producing many of the vegetables and fruits grown in more southern areas, e.g. fruit trees, tomatoes, corn, cucumbers, melons, as well as all other vegetables. This phenomenal growth is enabled by the micro climate of the Peace River valley; local quality food is becoming very important to consumers. Food produced in the Peace is of very high quality and because of the intense sunlight in the growing season, less chemical fertilizer is needed. Also, because of longer, colder winters, few pesticides are needed. Loss of

pristine area of BC – loss of this pristine area would be caused by flooding of the valley land and construction of more huge transmission lines. Due to the nature along the river banks, sloughing of land into the reservoir will eventually end up making it a big slough. In conclusion, I believe that power should be produced close to the point of use to eliminate power leakage in the long transmission lines. The \$6.6 billion dollars could be better used to develop alternate sources of power such as solar, wind, geothermal, tidal and ‘run of the river’. This would save the beautiful Peace River Valley for food production for our children and grandchildren. The Peace is, definitely, a very unique area, capable of being even more valuable in food production.” This a resolution from the Landry Women’s Institute that we sent by letter to BC Hydro, did you receive it?

A: *Dave Conway:* Yes, we did receive the letter from the Landry’s Women’s Institute.

The record notes that the written submission was submitted to the Facilitator.

C: *Nick Parsons:* Some people may know that I am not a prolific speaker but I mean what I say. “This is a presentation from a lifelong farmer and customer farmer of 50 years in the agricultural world in England and Canada, presented by myself Nick Parsons of Farmington, British Columbia. I have worked many soil types over the years including very productive land, mostly river bottom land and hilly rolling lands of not so productive lands, often yielding half per acre or less than the land in the Peace River Valley which BC Hydro want to flood for another hydro dam. The Peace River Valley in question gives us much security in food production down the road and for the well being of northern peoples in British Columbia which must not be shrugged off under the assumption that we can always obtain cheap food from elsewhere. In the event of natural disasters, wars, a fast changing climatic world, and relying too heavily on trucking common foods vast distances for our survival. My presentation is towards sustainable agriculture and horticulture in this valley for as long as man survives in this world, versus a very short dam life span at a terrific cost and loss and the valley, which is at present very underutilized in real crop production, has vast capabilities with the necessary will and planning. The agricultural acreage of the Peace Valley is 10,000 acres approximately with cropable acres of 5,000 under cultivation. For these 5,000 acres I would like to see them divided equally over a four year rotation with crops of wheat, potatoes, vegetables and canola (1,250 acres respectively). This area is unique as there is up to 140 frost-free days in the valley as opposed to 100 – 110 on the main farming plateau of the Peace River country. Now for the budgets and production: - Wheat – 1,250 acres @ 50 bushels per acres = 1,700 tonnes. 1 bushel of

wheat makes 50 loaves of bread, thus a capability of 3,125,000. One person eats on average 2 loaves per week/200 per year – going on these figures would feed 31,250 people per annum. Potatoes – 1,250 acres @ 15 tonnes per acre = 18,750 tonnes, 41,250,000 lbs. Average person eat 200 lbs per year – going on these figures would feed 206,250 people per annum. Vegetables – 1,250 acres growing carrots, lettuce, greens, roots, salads, etc. (1 acre would produce enough vegetables and salad for 100 so 1,250 acres would produce enough for 122,500 people. Canola (oilseed crops) – 1,250 acres canola would produce 1,000 tonnes of canola seed producing 400 tonnes oil or 88,000 gallons of diesel/canola oil. 600 tonnes of animal meal. 88,000 gallons of diesel oil is much more than would be needed to farm 5,000. (I would guess a quarter of the amount would do the job, leaving much for margarine and cooking oils). The remaining agricultural land in the valley could run many beef animals with the grass and canola byproducts sustaining up to 50,000 in meat per year. Irrigation from the river would enhance all I say for agricultural sustainability. To sum up, I hope my few words of experience will grab some attention as it is reality. If this land is put under water, the capability of food production will be lost for good. Think about it. Please note: I understand that at least 3 turbines can be out of commission at any one time at the WAC Bennett Dam due to wear and tear and in need of fixing. These turbines are now 40 years old. Would it not be more economical to install good quality turbines with today's technology and run near 100% capacity? Also note: British Columbia has only 2% of available crop land in Canada and here you are wanting to put a proportion of British Columbia' best productive land under water. Dams around the world are seen as an old approach to harnessing power today with many other methods coming into play.” I have Grade 4 land, and I supply the food bank with potatoes on a not-for-a profit basis. On a commercial scale the potatoes could feed all the people in the north. It seems to me that this is cut and dried and it doesn't matter what we say because it won't alter what will happen if we, if more people don't stand and fight the cause. *The record notes that Mr. Parsons displayed potatoes, canola seed and wheat that he had grown on his farm.*

Following the presentation Mr. Parsons submitted his written comments to the Facilitator.

- C: *Joe Figura:* I have driven that road many times and never saw any sort of agricultural development in that valley at all. I will agree that it is a unique spot because the first time I drove down that road I thought I was in another country, the scenery is just so beautiful. But, as far as agricultural land, if it is so usable how come we aren't growing vegetables and all the things he was talking about right now, why don't I drive there and see huge vegetable farms and all that kind of stuff. In fact there was

an article in the paper with a comment by a First Nations person saying why are we wasting time arguing about land, most of it is not very valuable - why can't we flood it.

- C: *Dean Fisher:* Nick (Parsons) has nearly lost his farm twice - why aren't we subsidizing initiatives? Agriculture is shot down and underfunded. Why not put \$7 billion into that?
- Q: *Joe Figura:* Why don't we ask BC Hydro why it is not farmed like it used to be?
- A: *Dave Conway:* The vast majority of the lands, owned by BC Hydro, are leased back to the people that sold the land. I was involved in socio-economic study a few years ago and Arthur Hadland, Lenore Haywood and Leigh Summer sat on the Committee. The consultants were chosen by the participants and one of the outcomes was the observation that the leases were too short and they recommended a 20-year lease so that the leasers' could put money into the land - that change was made. BC Hydro if it ever got to the point where the project went ahead compensates at fair market value. I don't know why those lands aren't been farmed? Those lands haven't been farmed in about 5 year and they were Class 1 land - that land is now being sub-leased. We are not the people making the decision about farming.
- C: *Randall Hadland:* It is the constant threat of flooding the valley that has kept the land from being farmed.
- C: *Nick Parsons:* The soul is destroyed.
- C: *Dave Conway:* Not all land is owned by BC Hydro, for example, Ken and Arlene Boon and a lot of other people still work the valley.
- C: *Ken Boon:* We all live under threat of Site C.
- A: *Dave Conway:* In the socio-economic land study and we looked at Taylor and Grimshaw, Alberta and we found negligible differences in the way the land is worked, you may review document at the Public Consultation Office in Fort St. John.
- C: *Ken Boon:* With the market conditions right now you don't get rich but once you flood the land it is gone forever. It is very important land and it is very limited in the province where you can grow potatoes.
- C: *Alvin Galvin:* With respect to lands not being used I think you are talking out of both sides of your mouth – you say we need more power and there is a changing global economy and transportation is more expensive and the price of petroleum is going through the roof so our dependency is changing. I am totally opposed to this project and it disgusted me that you

would take such a high-handed approach about people not using the land – tell the rest of the non-democratic world that it has been stripped away. I was born here, brought up and if you think that agricultural is marginal I think you should put that argument in the bag. Go into Safeway and see what happens when they miss a shipment - there isn't any stuff on the shelves and that is how dependent we are on fuel/trucks. If we were a third-world country the World Bank would not lend money to flood that valley because valleys have got grow soil so why would we flood a valley the World Bank won't lend money to. Looking at this schedule of meetings I see a November 5th meeting in Vancouver, SFU and that is right downtown. One meeting that is tokenism and optics - why not hold meetings in the communities of the lower mainland and Vancouver Island. I understand what you said about no power to the US but I don't believe it and if people want more power then they should start looking closer to home for their power. They could have nuclear power or wind power on the mountains of North Vancouver and in most of the lower mainland so there is no need for Site C unless the power is going south of the 49th parallel. Having a meeting in downtown Vancouver you will not get many people there. It will be interesting to see how many people you will get because they won't be driving in from Delta and Surrey to attend. The Northern Health Authority has 300,000 people and maybe this will impact 100,000. We are just going through the hoops and then you will build the dam.

- C: *Bert Veiner:* I am just talking about the valley not being used but look how things are changing and in a 100 years if the valley is flooded it is gone – you have already given the oil, gas and forestry away and now let us save something. We all know that there will be damage to the fish and wildlife but I have never seen where the results of studies will change BC Hydro.
- C: *Dean Fisher:* My final comment – we are all worried about future power but where will we get our food from? This is our whole livelihood up here and we have built an economy around it and integrated it and then you guys come up here and slap a dam down - I find this whole meeting disgusting and I think that you can use that money to better use.
- C: *Randall Hadland:* I would like to go back to the beginning of meeting and the topic of conservation and point to the changes in 20 years and conservation is more important now and we had that big surplus of power for so long but this isn't the first time BC Hydro has come here, it is the fourth time and every time we stopped them. I have had it, I have been at it since 1974 and I don't want to go on doing this for another 30 years. Do the studies and do it properly so that we can close this off.

- C: *Ken Boon:* Site C is like a pig you are putting perfume on and you will have to spend so much money – everything is so negative and costing so much. Consumers producing their power, we could talk about that and other options and this is the fourth meeting I have attended and it is obvious people don't want this and where is that going to come into play? You are going to come into play and if it goes ahead how will you deal with it. Talk about bad press - this is what they are doing in China and I thought we were past knuckle dragging. You keep talking about cheap power – it is about the future and the valley.
- Q: *Roy Mumby:* Go back to Page 4 of the Discussion Guide and what percentage of that would flow through Peace Canyon to make it to 900 megawatts – what is generation at Halfway?
- A: *Andrew Watson:* Roughly 92% of the flow and less than 10% from tributaries.
- C: *Lee Bowd:* I have to echo some of the thoughts heard tonight. I am opposed to the idea of the dam but I have a gut feeling that it is coming. I am pessimistic with the population dynamics and the fact we live next door, it doesn't really sit well with me. There are shortcomings in the study, the agricultural capability is not based on soil but based on climate. On Page 10 with respect to the wind projects my concern is with the wind projects in the upper reaches of Williston Reservoir and it is hard to tell what the drawdown on the dam would be and I look at the prevailing winds from the southwest and I am concerned that there is no plan to capture valley climate data. Looking at the pre-dam history there should be climatic stations collecting data for 30 years; data on winds sweeping up sand and dust down the reach - temperature, precipitation and wind.
- A: *Facilitator:* You are asking about climate studies?
- A: *Siobhan Jackson:* BC Hydro's meteorological department manages the data stations in the valley and is very aware of the data that exists and we will be installing site specific climate stations, temporary within the month and then permanent to collect the data parameters you are talking about. Wildlife, impact line studies and other environmental studies will be informed by this data.
- C: *Lee Bowd:* That is good.
- A: *Siobhan Jackson:* The study outline talks about what details are available.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation

These topics were not presented.

Dave Conway:

There are many ways to provide feedback, many opportunities and we appreciate what we have heard today; the comments, the information shared and questions asked. We are gathering preliminary baseline information and there will be further opportunities for input at Stage 3.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 9:30 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

FORT ST. JOHN LOCAL GOVERNMENT MEETING

October 14, 2008

Notes from a local government meeting held with representatives of the Site C Project Team on October 14, 2008 at the Quality Grand Inn 100th Street, Fort St. John, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Anré McIntosh, BC Hydro
John Nunn, BC Hydro
Kate O'Neil, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Lori Ackerman, Councillor
Bruce Christensen, Councillor
Jim Eglinski, Mayor
Larry Evans, Councillor
Grace Fika, Manager of Human Resources
Dianne Hunter, Administrator
Don Irvin, Councillor
Janet Prestley, Director Legislative Services
Karen Simpson, Councillor
Victor Shopland, Director of Infrastructure

The meeting was called to order at 12-noon.

KEY THEMES:

- Participants expressed interest in the ongoing consultation program, thanking BC Hydro for keeping the City of Fort St. John involved at several levels – stakeholder meetings, Technical Advisory Committees and individual meetings with senior staff.
- Participants generally supported exploring the possibility of providing public access to the powerhouse access bridge. They acknowledged that additional consultations with the Ministry of Transportation and Infrastructure, as well as with other municipalities and regional governments and BC Hydro, would be required.
- Participants were interested in more information regarding potential impacts to the forestry and oil and gas sectors.

- 1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders**
Round table self-introductions were undertaken.

- 2. The Consultation Program – Facilitator**

Provided a brief overview of consultation methods, materials, the agenda and past consultations.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names we apologize for any misspellings.

- 3. DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

Q: *Bruce Christensen:* With respect to the energy call, have there been any responses?

A: *Dave Conway:* Yes and we will hear around the end of November about the development - the majority of respondents are wind and micro-hydro projects. We have received something like 80 responses to date.

Q: *Lori Ackerman:* I notice that the Open House in Fort St. John is scheduled for a Council night - can that be changed because it is unfortunate that people have to make a choice?

A: *Facilitator:* This could be a problem given that the advertising has already taken place.

C: *Lori Ackerman:* I think that it is very important for Council to be able to be there so can you take a look at that.

A: *Facilitator.* Let us take a look at it.

Q: *Lori Ackerman:* Is Canfor one of the IPP's¹?

A: *Dave Conway:* I haven't heard specifically except that there has been good uptake.

Q: *Don Irvin:* Do you get good results from the IPP's?

A: *Dave Conway:* I don't know the results but I do know that the savings in gigawatt hours is good and I can check further.

Q: *Dianne Hunter:* The City will provide meeting dates for 2009 so that BC Hydro can keep that in mind in the future.

A: *Facilitator:* Thank you very much.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options – Dave Conway

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

There were no comments received.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead

- Reviewed the role of the long term acquisition plan

Page 8 – Resource Options Comparison – Dave Conway

- Reviewed the table

DISCUSSION:

Q: *Larry Evans:* With respect to wave and tidal recently there was a news story about the Bay of Fundy – has anyone looked at the BC Coast because there are sections there where the tide runs pretty good. What does intermittent mean?

A: *Dave Conway:* There was an experimental project off Vancouver Island but when the energy plan changed we became the ones not actually doing it - the IPP's are looking at it but it is expensive.

A: *John Nunn:* There are actually two different things here and with respect to wave it will always be intermittent because it is dependent upon the wind.

Q: *Larry Evans:* Should they be together then on the table?

¹ Independent Power Producers

- A: *John Nunn:* They should be split and with respect to tide it varies and I wouldn't know for sure how much tidal power you would get.
- C: *Larry Evans:* So you are saying it is expensive now but I think that you could do a lot with what you are spending on Site C and I would want to know more about the Orkney Islands as well with respect to this issue.
- Q: *Bruce Christensen:* One of the biggest producers of bio-mass is the Lower Mainland and isn't the GVRD looking at waste energy production rather than hauling it to landfills?
- A: *Dave Conway:* Yes there is some work going on in that respect as well as there is gas recovery in the landfill.
- Q: *Bruce Christensen:* What is the cost included in getting power to the Lower Mainland?
- A: *Dave Conway:* Transmission cost is looked at for all options. For example with respect to beetle wood transportation is a big factor and it was very clear listening to the producers of beetle wood that the call would have to be substantially higher to account for transportation costs.
- A: *John Nunn:* Some ranges are very wide but there are a whole bunch of factors that go into a wide range of costs and it will interesting with the clean power call to see the responses.
- Q: *Jim Eglinski:* With respect to the new natural gas sector referenced on Page 8 are there no comparisons to produce and compare a gigawatt hour from hydro heat and natural gas heat and I wonder why those comparisons weren't there. For example, if I had a 1500 square foot home heated by electricity and natural gas was probably cheaper than electricity why have you not included that cost in there? I recently met with a couple of people in my office and they had just converted their home to electricity because it was cheaper.
- A: *Dave Conway:* The table refers to how much production you can have in gigawatt hours, how many gas plants are available, and that is why it is not there.
- C: *Facilitator:* The comment was that it would have been useful to have heating costs per house based on square footage.
- C: *Jim Eglinski:* An average home costs this much with natural gas and this much with hydro and that would impact your future needs if it was cheaper with natural gas.
- Q: *Grace Fika:* Are there no other options for large hydro options?
- A: *Dave Conway:* No, the only option identified is Site C and it is the only one in the province with a flood reserve on it - this is the only one at this time. The government at the time of Premier WAC Bennett decided on a two river policy and no government since that time has changed that policy.
- Q: *Grace Fika:* So there isn't potential for other rivers?

- A: Dave Conway: There is potential but the government has chosen a two-river policy.
- C: *Facilitator*: The 20-year plan, referenced earlier, is the planning horizon so the policy is not necessarily for ever more.
- A: *Grace Fika*: I am just going by discussions I have heard around the community and they are: why aren't other rivers being looked at and are there other rivers that are available? Is there potential on other rivers – are there other rivers that have potential?
- A: *Dave Conway*: And, I addressed that right?
- C: *Grace Fika*: Right.

Page 9 – BC Resource Options Comparison – Dave Conway

- Q: *Lori Ackerman*: If you were to produce as much energy by wind, at Site C, would you have a larger land base that would have to be taken up by wind and would that be quite a bit bigger than the Site C reservoir?
- A: *Dave Conway*: It would depend on the project.
- C: *Lori Ackerman*: I thought there was something (table/graph) with everything lifted to the same level so that we could make a comparison?
- A: *Anré McIntosh*: Wind is site specific and depending on the topography it depends on how the turbines can be positioned and then they like to position them on the tops of mountains – so it is project specific and you can't do a comparison like that generically. You can look at the EAO² web site and see examples of wind project footprints.
- Q: *Dianne Hunter*: I really don't see any social impacts on your table; for example bio-mass has a different impact, and that is one of biggest issues that the City has and it is not addressed in the column.
- A: *Dave Conway*: Right, it is not in a separate column.

Page 10 – Map of Peace River Country – John Nunn

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

² Environmental Assessment Office

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

- Q: *Victor Shopland:* Isn't that currently an oil field road that goes to the Septimus?
- A: *John Nunn:* Yes, that is correct, and the question becomes the standard of the road.
- Q: *Bruce Christensen:* What would be the straw to force this to happen? I am in favor of this road happening.
- A: *Facilitator:* Just to be clear here, we are talking about public access to the power house bridge and we are not talking about the Jackfish Lake Road.
- A: *Bruce Christensen:* Right, two lane bridge for access to the south side of river.
- C: *Dave Conway:* The ultimate decision would be a balance of the needs of the region and we can't make that determination.
- A: *John Nunn:* The Feedback Form provides lots of room to provide additional input and then the input will be taken to MoT³ and that will form part of process.
- C: *Larry Evans:* They tried to put a road through there in 1958 and whether Hudson Hope and Dawson Creek likes that is another story and we need good feedback.
- C: *Karen Simpson:* We have a lot people that drive and it is the long way around and there is a good business case for that right now.
- C: *Lori Ackerman:* I have also heard from Hudson Hope that the highway goes right past the school and the trucks rip past the school and that concern has also been indicated off-line by the Mayor. There are still a lot of people that will still take the long route to Chetwynd particularly in the fall to see the fall colors.
- C: *Facilitator:* It is important for Council to know that there has been a range of opinion about this topic and not just community by community.
- A: *Dave Conway:* And we also heard that range of opinion from industry – forestry and oil/gas.
- Q: *Jim Eglinski:* Looking at the yellow line – how close to Old Fort Road is that?
- A: *John Nunn:* Yes and the mark on the page indicating 5 kilometers at that point the road actually follows Old Fort Road.
- Q: *Jim Eglinski:* Why not connect there?

³ Ministry of Transportation and Infrastructure

- A: *John Nunn:* That is good feedback and please note that comment on your feedback form.
- C: *Jim Eglinski:* I would be very concerned about people going through residential areas when they could come down Old Fort Road and it is more easily accessible and more easily monitored by the RCMP.
- Q: *Dianne Hunter:* The purpose of the road to the worker camp – is not there?
- A: *John Nunn:* Not for that purpose but I say that advisedly and while not shown specifically to get to the worker camp there would be a network of roads during construction.
- Q: *Jim Eglinski:* That worker camp was 20 years ago?
- A: *John Nunn:* Yes.
- C: *Facilitator:* Perhaps you would be interested in the Round 1 consultation results because again there was a wide range of opinion around worker camps.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

- C: *Dianne Hunter:* Council will be making a formal submission to BC Hydro by November 30th and one thing that the City is very concerned about is avoiding legacy products that leave us worse off than we started. Generally the City is looking to work with BC Hydro because we know that we will be impacted by Site C if it goes ahead and we want to offer to BC Hydro an opportunity to showcase Fort St. John and remove from the grid or provide alternate power opportunities to sell power back to the grid and further we are seeking support and involvement on where we are now so that we can gauge impacts on the community during the six stages of the dam. In a lot of the discussion and in the consultation and there is a yes/no phase and if the dam goes ahead we are equally concerned about the construction stage and then “let down” stage when the dam is finished and what mitigating issues will be put in place and then there is the on-going maintenance stage and then the final decommissioning stage of the dam. We want to work with BC Hydro and have them assist us with the base studies because without that it will be hard to give you a list - even the short term assistance to the City to provide an informed response to BC Hydro because the last thing anyone needs is a quick and dirty list. Those are just general thoughts the City is having and we will be submitting a written response to you by November 30th. There will be separate discussions through the technical committees.
- C: *Dave Conway:* Just to confirm that the concern around consultation support will that be submitted as a separate submission or will it be part of the November 30th submission.

A: *Dianne Hunter:* I understand that it will be a separate submission and I think it has already started as we have staff on your technical advisory committees.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – John Nunn

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

There were no comments received.

Page 18 – Reservoir Preparation Considerations Table

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead

Q: *Karen Simpson:* Are you able to look back at the WAC Bennett Dam and how the ground and environment has fared?

A: *John Nunn:* We got received feedback on the lack of preparation; that very little clearing was done and that there are large issues with floating debris on the reservoir that is hazardous to boating. As well there are elevated levels of mercury in the fish from leaving the organics in the reservoir. We have a strong commitment to learn from these lessons and do it better. It sounds simple but there are a lot of trade-offs that will take place and we need to explore the values of the communities and agencies.

A: *Facilitator:* For example, in the last round of consultation 58% wanted more access and 42% wanted less access and that is a significant split so we will want to probe more, with more certainty, about what people are thinking about. This is extremely important and the information adds more input.

C: *Jim Eglinski:* Just this morning I was in a conversation and Site C came up and the whole conversation focused on the recreational aspects of a lake but the whole gist was that the recreational aspects were very worthwhile to do and I think that you need to do a little more work on that.

Q: *Bruce Christensen:* I have lived here 20-years and heard this is about access and since Peace Canyon Dam went in I heard that BC Hydro has purchased land in the valley on what will become the flooded area. Is that right?

A: *Dave Conway:* BC Hydro has had a passive land acquisition program in place since the 1980's and we are currently updating that information. However approximately three-quarters of the land is owned by Hydro with about 50%-60% of that land being farm land and the remainder crown land.

- Q: *Bruce Christensen:* So you have purchased the land?
- A: *Dave Conway:* Some however there are still significant landowners that work the land.
- C: *Facilitator:* The number is rounded because the impact line information needs to be updated.
- Q: *Larry Evans:* There is talk around here that when the reservoir is filled that there will be a period of time before it is safe? Is this true? This is a very unstable area and a slide could push the water right over dam, is that true?
- A: *John Nunn:* As part of the 1980 studies slides were modeled that went back to the historical slides, such as the Ache and others, and the modeling looked at available information and asked what the effect a bigger, faster slide could have and what they found was given the freeboard of the dam that the biggest slide would not overtop the dam. It is important to remember that as a wave goes up it also travels along and as it travels along it dissipates so there is no risk of a wave overtopping the dam. With respect to the first question regarding recreational aspects there are 280 kilometers of shoreline and there are some areas where we will want to monitor such as the Moberly and it is true that parts of the reservoir will be off-limits for a period of time – there will be a program of monitoring and instrumentation.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – John Nunn

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

- Q: *Jim Eglinski:* The area outlined in yellow on Page 21 is that just the cleared area?
- A: *John Nunn:* Good point, all the areas will be reclaimed and habitat opportunities will be created. As part of the integrated studies in Stage 3 opportunities for habitat will be looked at. The land will not just be left.
- Q: *Larry Evans:* With respect to the granular investigations and Page 12 – what effect will that have on the road?
- A: *John Nunn:* The road runs along north side of the big island so during construction that road may move around and that is typical of construction of this type.
- C: *Jim Eglinski:* With respect to your statements around material for dam – you are correct in saying 10 kilometers and the reason I say that was because I participated with the Regional District and we looked at solid waste disposal areas in that area and that area has about a 900-feet of clay.

So it should be good. Tim Caton, Regional Director has further information.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Anré McIntosh

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned

- C: *Facilitator:* BC Hydro has been asked about where the results of studies are and the baseline work is to find out what the situation is right now rather than results of effects.
- Q: *Lori Ackerman:* What about Nursery Island and the impacts on the ungulates?
- A: *Anré McIntosh:* As part of the ongoing program as well as specific studies will be undertaken on ungulates because we don't have firm numbers right now - so that is part of the studies that will be initiated. As part of the feedback in the technical advisory committee process and the government agencies that are participating in that process we will be adding and changing studies to address concerns as they arise.
- Q: *Lori Ackerman:* How many seasons would you be able to observe?
- A: *Anré McIntosh:* From now and if collars are put on then we would follow the wildlife for the life of the collars. We could put a collar on through Stage 2 and Stage 3 up to construction.
- Q: *Lori Ackerman:* Why don't you take a river boat in the spring because that would give you a good idea?
- A: *Anré McIntosh:* We can't see them that is the problem – they tend to hide unless you are there at the time they move.
- Q: *Lori Ackerman:* Are there studies that have been done in the past with MoE⁴?
- A: *Anré McIntosh:* Some studies were done in the 1980's but they have not been tracked for a long time.
- Q: *Larry Evans:* With respect to the north side of the river and the small jog on the map there is a land fill there and will you be doing any studies on leachate?
- A: *John Nunn:* There are studies and they are listed on Page 23 (contaminated sites).
- Q: *Larry Evans:* Is that the landfill there? I was under the impression it might slide into the river
- A: *John Nunn:* No, it is further to the west.
- A: *Dave Conway:* Yes, we are aware of it and we are aware of potential leaching and one of the studies that will be undertaken will be a water

⁴ Ministry of Environment

quality sampling program that will establish the base line - establish where ground water would increase the potential for leaching.

Page 24 – Land Use; Agriculture – Anré McIntosh

- Q: *Jim Eglinski:* I was called about 5 months ago and I was told with respect to the amount of Class 1 (agricultural) land that we would get more Class 1 back because of the water level coming back up, is this true?
- A: *Anré McIntosh:* I have never read anything about how a reservoir will affect the sub-service layer.
- A: *Dave Conway:* There are about 180 ha that will be affected and this is one of the things we are looking at – all classes of land will be looked at.
- Q: *Janet Prestley:* Has the ALC⁵ approved the land coming out?
- A: *Anré McIntosh:* As part of Stage 3, should the project proceed, they have their own process and that would happen if the project went to that stage.
- A: *Dave Conway:* They would look at not just the current production but the capability of production.
- Q: *Janet Prestley:* It is extremely hard to get land out of the agricultural land reserve and I just wondered whether BC Hydro got preliminary approval?
- A: *Dave Conway:* No.

Page 25 – Forestry; Mining and Oil and Oil and Gas – Anré McIntosh

There were no comments received.

Page 26 – Potential Land Use Effects

- C: *Jim Eglinski:* Float the logs down the river (this comment with reference to what to do with the logs from the cleared land).
- Q: *Lori Ackerman:* Is this part of someone's allowable cut?
- A: *Dave Conway:* It depends – the forest companies on the north side are Canfor and Louisiana Pacific and on the south side there are Louisiana Pacific, Tembec and South Fraser Timber – in the accounting there are many issues too consider including where they will get the new old growth from.
- Q: *Lori Ackerman:* What about directional drilling for gas under the dam?
- A: *John Nunn:* Around the dam no but up and around the reservoir not a problem.
- Q: *Lori Ackerman:* So they could go one kilometer from the dam and drill?
- A: *John Nunn:* Yes that is correct.
- A: *Dave Conway:* There is already drilling going on in the area.
- Q: *Lori Ackerman:* What is the geology under the reservoir – with respect to the extraction of oil and gas?

⁵ Agricultural Land Commission

- A: *John Nunn:* The only linkage would be seismic and there are a cluster of small earthquakes and that will be taken into account in the studies for the dam. The oil and gas extraction is deep compared to the dam and we don't have any concern - so no real linkage.
- C: *Lori Ackerman:* There is always the Monty basin and that could move south.
- Q: *Don Irvin:* What would exclusion around the reservoir/dam for oil and gas?
- A: *John Nunn:* I don't know but I could look that up.
- Q: *Jim Eglinski:* With respect to tourism and recreational and the south bank - on the Columbia dam sites have those areas been opened up for recreational facilities such as cabins?
- A: *Dave Conway:* There are some and we have provided a limited amount of access to the reservoir. The population base is higher in the Columbia region but access is there and there are some boat ramps. On the Peace system we are recharging Williston from April onwards and it is full through to the end of September - we are not talking about the movements in Site C that you would see on the Columbia or the WAC Bennett Dam and we are also looking at flatter operations.
- C: *Dianne Hunter:* Some boat ramps are in the middle of nowhere (Columbia).

Page 27 – Information Item – Transmission Lines

GENERAL DISCUSSION

- Q: *Lori Ackerman:* The environmental studies will be done after this information moves forward to government and there won't be a lot of the studies that will be complete?
- A: *Anré McIntosh:* There are studies that are on-going that will be part of the Stage 2 report. Studies that involve long-term commitments such as ungulate tracking we will commit to following them for the length of the life of the collar and that information will help MoE with wildlife management so that information will be reported on and if the project moves forward to Stage 3 the information will be submitted towards environmental certification.
- A: *Dave Conway:* These are baseline studies and not impact assessments.
- Q: *Lori Ackerman:* We have a population up here that loves the outdoors and loves to hunt and the impact on the ungulate population seems to constantly increase so we could lose a chunk of tourism. My concern is that there has not been enough time put towards these assessments.
- A: *Anré McIntosh:* Part of the work started in 2005 and we will be collecting more and then adding the collaring program.

- C: *Lori Ackerman:* That is only 4 years and we see the expansion of the wolf population so even 4 years is not a lot of time in this area.
- Q: *Jim Eglinski:* With respect to the transmission line – is that a straight line on the south side of the Peace to Peace Canyon Dam?
- A: *John Nunn:* It follows the existing transmission line.
- Q: *Larry Evans:* With respect to the potential impacts of Site C, Page 5 what is the impact on history or heritage because you will be flooding an important part of the history of this area – two landings, (Bear Flats and Cain head) – this was the highway that settled the area and my concern is what would you do to keep that area alive for what used to be? Would you put in something like a kiosk?
- A: *Anré McIntosh:* That will be studied as part of the socio-economic studies (heritage) and we are gathering data. No decision has been made on a kiosk.
- C: *Larry Evans:* If this was to go I would not like that.
- A: *Dave Conway:* There was some mapping been done by SFU but that will be updated.
- Q: *Jim Eglinski:* On Page 28 it says that you got 22 feedback forms?
- A: *Facilitator:* No there were 224 feedback forms received and 22 separate written submissions. 936 people participated and 284 people attended 29 stakeholder meetings in the Peace River region and provincially as well as 380 people attended 10 open houses in the Peace River region.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Dave Conway

Thank you for your time. Stage 2 is not the end of consultation and if the project moves to Stage 3 there will be regulatory consultations. Parallel and separate consultation is on-going with the First Nations and consultation with land owners affected by the highway relocation will start this November. BC Hydro is committed to receiving feedback and we are working closely with the City of Fort St. John on the technical advisory committees. Also you are welcome to submit comments as individuals – there are many ways to provide feedback.

FINAL DISCUSSION:

- Q: *Bruce Christensen:* I was watching CTV with respect to the funding on large projects like this and in light of the financial downturn might that affect this project?
- A: *Dave Conway:* That is an interesting question and the answer is that we are a crown corporation and funding is raised through rates and the

Province of BC has a very good credit rating and we don't think it will be an issue.

C: *Facilitator:* I think it is fair to say that it too early to comment on that.

C: *Jim Eglinski:* On behalf of Council and staff thank you for keeping us involved and we appreciate the work that your staff have done and we hope that Stage 2 goes as well as Round 1. The submission, from the City of Fort St. John, will be forthcoming.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 2:00 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

INDEPENDENT POWER PRODUCERS OF BRITISH COLUMBIA

October 15, 2008

Notes from an Independent Power Producers of British Columbia meeting held with representatives of the Site C Project Team on October 15, 2008 at the BCIT Downtown Campus, Room 282/84 555 Seymour Street, Vancouver, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Siobhan Jackson, BC Hydro
Mina Laudan, BC Hydro
Michael Savidant, BC Hydro
Andrew Watson, BC Hydro
Carolyn Butt, Kirk & Co. Consulting Ltd.
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: David Andrews, Cloud Works Energy
Craig Aspinall, Western GeoPower
Marie Crawford, UBCM
Dave Cyr, Plutonic Power
Doug Grimes, Knight Presold
Chris Oakley, Brookfield Renewable Power Inc.
Cristenel Serban, Brookfield Renewal Power Inc.
Michael Walsh, Brookfield Renewal Power Inc.

The meeting was called to order at 10 a.m.

KEY THEMES:

- Participants expressed an interest in the potential environmental impacts of the project and BC Hydro's progress regarding engineering and design to mitigate potential impacts.
- Participants expressed an interest in potential opportunities for private sector engineering firms to work on the project, if it proceeds.
- Participants were interested in key features of the dam and the reservoir, asking questions about reservoir fluctuation and river flows.

- 1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders**
Round table self-introductions were undertaken.
- 2. The Consultation Program – Facilitator**
Provided a brief overview of consultation methods, materials and the agenda.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names we apologize for any misspellings.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bchydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Mina Laudan

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

There were no comments received.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

C: *Facilitator:* In past consultations there was high interest in the energy options and cost ranges and this chart has been presented in response to that interest.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Michael Savidant

- Generally we have been asked why there is a need for new sources of energy and what are the alternatives to Site C and how do we do the comparisons?
- The long term acquisition plan (LTAP) is BC Hydro’s best guess at what the long term demand will be.

- Conserve, build and buy more and the LTAP looks at each one of those pillars.
- A separate analysis has been undertaken on Site C and it was asked would it provide value and the analysis showed that it would.
- The table compares ranges of potential sites and looks at the low and high of energy cost based on LTAP.
- LTAP looks at the portfolio and what it would look like at various courses of action and options.

Page 8 – Resource Options Comparison – Michael Savidant

There were no comments received.

Page 9 – BC Resource Options Comparison

Q: *Michael Walsh:* Do the price ranges reflect no transmission cost or are there adjustments?

A: *Michael Savidant:* There is an adjusted energy cost, line loss, carbon cost and firming benefits. F-11 in the LTAP adjusts using a common methodology for all projects.

Page 10 – Map of Peace River Country – Andrew Watson

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

Q: *Craig Aspinall:* I notice that the road also impacts the Moberly River – what is in the Moberly? Is it fish bearing?

A: *Andrew Watson:* It is fish bearing.

A: *Siobhan Jackson:* It will be inundated about 10-kilometers up the Moberly and would impact some spawning areas and we will be studying that to get more information as well as the winter ungulate use.

Q: *Craig Aspinall:* It is mostly crown land?

- A: *Siobhan Jackson:* It is mostly crown land although there are some private parcels, which can be viewed on Page 14 off Jackfish Lake Road, but most of what you see is crown land.
- C: *Craig Aspinall:* I didn't realize another river would be impacted.
- A: *Siobhan Jackson:* In that view, the Halfway River and Cache Creek would be impacted as well.
- Q: *Craig Aspinall:* Are there any independent power producers with applications for wind or small hydro in that general area?
- A: *Andrew Watson:* There is certainly a lot of wind. There is Aeolis and Dokie.
- Q: *Craig Aspinall:* Are there any immediately adjacent to this area?
- A: *Siobhan Jackson:* No, not immediately adjacent that we know of but there are some in the Chetwynd area.
- C: *Facilitator:* So your question is: are there any right here?
- Q: *Craig Aspinall:* So no one has potential for small hydro on the Pine or Moberly? I guess they aren't suited for small hydro anyways.
- C: *Facilitator:* I think you raise an important question and it is one of the reasons why, while this topic is of high interest to local governments in the region, it is a topic that you should pay attention to in terms of the potential access to that south side, and what you think of that whatever your interest is. As you know, this consultation is trying to gather information from a whole variety of interests. Marie, I just want you to know that local governments, whether regional, municipal or city, have all shown a high interest in this and any information that BC Hydro takes in at this stage will need to be discussed further with local government, MoT¹, and of course with Hydro.
- C: *Marie Crawford:* We are moderating to keep advised of the situation and I would stress the importance of continuing to consult with local government.
- A: *Facilitator:* There are also opportunities for local government to provide feedback through the technical advisory committee process and we can provide additional information on those committees following the meeting.
- C: *Mina Laudan:* In this round of consultation we have been meeting with local government individually and all local governments have been invited to participate in the technical advisory committee process.

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Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Mina Laudan

- Q: *Craig Aspinall:* I look at this chart and I am thinking that it is kind of a poll and is a one-sided question. What is the option - would you still like it if it impacted on the environment and the First Nations, for example?
- A: *Mina Laudan:* This was a question in the round 1 consultation and was one of about 37 questions and they ranged from, for example, environmental impacts, road construction, highway reallocation and fish – this question was one of many and didn't stand alone and it was not a poll. The results of the round 1 consultation are posted on the BC Hydro web site and there was a consistent theme about mitigation on the environment.
- C: *Craig Aspinall:* I find it interesting that what you put in your document is the positive stuff and to my perspective it is one-sided.
- A: *Facilitator:* We hear the comment but there is far more information about impacts.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Andrew Watson

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

Page 18 – Reservoir Preparation Considerations Table

Page 19 – Impact on Resources; Looking Ahead

- Q: *Craig Aspinall:* What kind of timber?
- A: *Siobhan Jackson:* It is a mix of timber, a lot of non-usable material and depending upon the technology of the mills we could be moving into some trees that weren't usable before.
- Q: *Craig Aspinall:* You have 86 kilometers - how much wood, do you have a sense of volume?
- A: *Siobhan Jackson:* That is one of the studies that we are undertaking and we will be studying that.
- Q: *Craig Aspinall:* As a bio-mass would that be a 5-year product?
- A: *Andrew Watson:* It depends on what is merchantable and if not merchantable then the bio-mass becomes more feasible.
- A: *Craig Aspinall:* But there is access to a railway line, isn't there?
- C: *Facilitator:* The question of access is an important one, for example would the roads be decommissioned after the dam is built? There was a range of opinion on whether access was a good idea or not depending on your interest.
- A: *Siobhan Jackson:* So that would be the context, the cost estimate showed that there was 3800 ha overall and about 1000 ha of merchantable timber however this is old information and would have to be updated.
- Q: *Craig Aspinall:* Do you have a sense of the scale?
- A: *Andrew Watson:* It is 1/20th of the area of Williston.
- C: *Craig Aspinall:* That is a good chunk of wood.

- A: *Siobhan Jackson:* There is good capacity and there are mills up there and we will work with the forestry sector to understand how this material could move to the mills – generally it is uneconomic timber right now and there is crown land but about 50% of the land is private land. So there is a lot of work that will need to be done with industry components and we would optimize and maximize the use of the timber without disrupting industry.
- Q: *Craig Aspinall:* 3800 ha, 1000 ha merchantable and the rest is junk, Aspen type?
- A: *Facilitator:* What we have heard is that more study is needed based on current conditions.
- C: *David Andrews:* It is an area 6 kilometers by 6 kilometers.
- Q: *Michael Walsh:* What is a heritage site?
- A: *Siobhan Jackson:* The definition of heritage is covered by provincial legislation – sites are officially protected and outside of that we are working with the environmental assessment process and area communities and we have identified other sites of cultural significance so both categories are covered under the environmental assessment review process. Generally we are looking at archaeological areas, the fur trade era in the northwest and the Hudson Bay trading post. Also fossils and dinosaurs are not protected by protected by legislation and we will be looking at fossils and dinosaurs and at cultural and ethnographic aspects including spiritual considerations.
- Q: *Michael Walsh:* Do you have a cultural map?
- A: *Siobhan Jackson:* There are 30-years of work and any sites identified have been registered with the provincial data base that archaeologists can access. It is not public information rather there is a controlled release of information and with respect to our studies we are not allowed to distribute results without permission.
- C: *Facilitator:* And the reason for this is to protect the sites.
- Q: *Craig Aspinall:* Also, First Nations have copyright on information.
- A: *Siobhan Jackson:* Archeological sites are required to be registered with the province and we would support that.
- Q: *Michael Walsh:* Do you have the dimensions and time of year for the photograph on Page 19 (Discussion Guide)?
- A: *Andrew Watson:* It is a regulated river.
- A: *Siobhan Jackson:* Our water license is for flows between 10,000 - 7000 cubic feet per second and there are also tributaries that inflow and it is also dependent upon the time of year.
- Q: *Michael Walsh:* My question is about the high and low variability of the river at Fort St. John – elevation/height?

- A: *Michael Savidant:* Other than the flows per cubic second as set out in the water license I don't know.
- Q: *Cristenel Serban:* What is the mean annual inflow?
- A: *Michael Savidant:* I am sorry to change the terminology but it 1230 CMS at Site C and we will shape that.
- Q: *Michael Walsh:* What is the height of the mud bank on Page 19?
- A: *Andrew Watson:* Dam height from river bed is 150 feet - about a third of the height up the bank.
- Q: *Michael Walsh:* How long to fill the reservoir?
- A: *Siobhan Jackson:* It will take about 3 weeks and we will maintain minimum flows in the river during that period. Just to give you some context it took about approximately 3-years to fill the Williston reservoir.
- Q: *Michael Walsh:* Will there be a downstream impact?
- A: *Siobhan Jackson:* There will transfers of minimum and maximum flows and there will be no appreciative difference downstream and we will be operating on a run-of-river basis.
- C: *Michael Savidant:* There will be no change to daily, monthly flows – with respect to the attenuation point we will see some change at Taylor and they will notice a larger variation.
- Q: *Michael Walsh:* How long will it take the water to get from the Peace Dam to Site C?
- A: *Michael Savidant:* Today it is about 10-12 hours.
- A: *Andrew Watson:* Peak to peak but we will lose some hydrologic balance.
- A: *Michael Savidant:* There will be shaping depending on what the operations plan is.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – Andrew Watson

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

- Q: *David Andrews:* Would you be looking at putting a curtain down? If impervious material is not found nearby, would you look at changing the design?
- A: *Andrew Watson:* We will be looking for feasible options and looking at processing less favorable material however we believe that an earth filled dam is best but we would look at all options.
- Q: *Craig Aspinall:* So you are moving the same amount of material as was moved for the Bennett Dam?
- A: *Andrew Watson:* Yes.
- C: *Craig Aspinall:* That is a lot of rock.
- Q: *David Andrews:* Has rock been established in the area?
- A: *Andrew Watson:* Yes, geologically this is the preferred site and the south bank is also an important feature.
- Q: *Chris Oakley:* Do you understand where slumping will occur? This site is the result of studies over a long period of time – this is just a check?
- A: *Andrew Watson:* Yes, a lot of work has been done historically and the dam has been designed to accommodate very conservative estimates and getting the best methodology for predicting is one of our higher priorities and we know that will be required for the environmental assessment review should the project proceed. There has been a lot of geotechnical work done.
- Q: *Chris Oakley:* Do you have a high confidence level because there is going to be a high saturation of a lot of soils?
- A: *Andrew Watson:* Yes and we have a very conservative take on that and where erosion effects are predicted and where there is a level of uncertainty one approach will be monitoring. There will some inevitability and there will be uncertainty about soil types but consequences will be looked at. We will take a prudent approach.
- Q: *Craig Aspinall:* Will the engineering be done in-house?
- A: *Andrew Watson:* The majority of the engineering would be done externally. The historic design was done in the 1970's and then in 1988 a shelf plan was developed and we went out to a RFP² for external firms to take design responsibility and we have those design partners involved in the Stage 2 work. We are looking at how we would procure a project like

² Request for Proposals

this. So at this point no decisions have been made but it is anticipated that it would be external engineering.

C: *Mina Laudan:* To summarize no decision has been made and it will be largely external engineering.

Q: *David Andrews:* EPC?

A: *Andrew Watson:* No decision has been made. We have ramped up our capital projects dramatically and we are relying on external firms.

Q: *Doug Grimes:* Looking forward and the procurement is under review do you see going to the market for engineering resources?

A: *Mina Laudan:* We don't see that at Stage 2 and should the project go forward there would be a lot more engineering required.

Q: *Michael Walsh:* With respect to Page 21 (Discussion Guide) could you explain what the colored lines represent?

A: *Andrew Watson:* The yellow lines are areas where we are looking to extract granular material and the pale blue lines represent areas where excess material will be placed.

Q: *Craig Aspinall:* Taking a look at the stages of the consultation - Stage 2 was primarily consultation and what else?

A: *Mina Laudan:* There is consultation with both the public and affected land owners and First Nations but it is largely engineering and there is a list of the technical studies that will be undertaken on Page 23 and addressed by Siobhan Jackson later in the presentation.

A: *Andrew Watson:* We are looking at all the things that have changed over the years, for example the reservoir shoreline and we are undertaking the pre-work to quickly advance the design should the project proceed.

Q: *Craig Aspinall:* Has all of the work been commissioned for this stage?

A: *Mina Laudan:* Yes.

Q: *Doug Grimes:* With respect to the engineering was that work part of the original work that was done?

A: *Andrew Watson:* The early work was completed and we are working on outstanding design issues that we would need as an input into advancing the design – design earthquake and impact lines, for example, because these are long lead time issues.

Q: *David Andrews:* What is the transmission route?

A: *Andrew Watson:* To Peace Canyon Dam, on the south side of the river and that is illustrated on Page 27.

Q: *Craig Aspinall:* On the engineering side, was that work put out in a bidding process?

- A: *Andrew Watson:* The significant design was part of the original work that was done and we continued the relationship in Stage 2.
- C: *Craig Aspinall:* I am asking because IPPBC has engineering capability.

**Page 22 – Environment – Preliminary and Baseline Resource Studies;
Wildlife Studies – Siobhan Jackson**

Page 23 – Stage 2 Baseline studies underway or planned

- Q: *Chris Oakley:* Are the ungulates presently crossing the river?
- A: *Siobhan Jackson:* They can all swim and yes they can move across the river.
- Q: *Chris Oakley:* Will there be a tendency for them to try and swim across the reservoir?
- A: *Siobhan Jackson:* That is something that will be studied and the reservoir will likely freeze and that is a condition that is a change from today's conditions. The winter ungulate range areas are identified on the south bank so there is some movement for sure however that will all be studied.

Page 24 – Land Use; Agriculture – Siobhan Jackson

Page 25 – Forestry; Mining and Oil and Oil and Gas

Page 26 – Potential Land Use Effects

Page 27 – Information Item – Transmission Lines

- Q: *Craig Aspinall:* With respect to the ALR³ how do you see this land coming out?
- A: *Siobhan Jackson:* We have had a preliminary discussion but there is an application process that would have to be gone through.
- Q: *Craig Aspinall:* Looking at the list of socio-economic studies and Site C and with respect to the independent power producers there are obvious implications and it all fits into the LTAP forecasts and there are a lot of questions about that but I won't go into that here. So for the Site C group there are no potential impacts to looking at energy issues and is this something that should be looked at?
- A: *Siobhan Jackson:* I don't have a study for that but we will take that comment.
- Q: *Craig Aspinall:* I am asking, will you look at LTAP and ask do you have the right numbers?
- A: *Michael Savidant:* With respect to the LTAP we might not want to second-guess our colleagues in the company.
- C: *Craig Aspinall:* That is probably what we will do and David Austin will be going before the BC Utilities Commission and raising questions and at some point you could see the same kinds of questions and there are some really hard questions coming relative to Site C.

³ Agricultural Land Reserve

- C: *Facilitator:* Just to capture for the record, I think the first question was could the BC Hydro Site C team think about a socio-economic study relative to implications to the independent power producers sector and then the second question was whether BC Hydro would look at LTAP numbers to confirm that they are accurate.
- Q: *Michael Walsh:* Are there cost estimates for mitigation compensations?
A: *Siobhan Jackson:* Yes and they are included in the current cost estimate which will be updated at the end of Stage 2.
- Q: *Dave Cyr:* What about cost estimates for First Nations?
A: *Andrew Watson:* They are included in the Stage 2 cost estimate.
C: *Mina Laudan:* There is no specific budget but when the capital cost was put together a risk reserve was put in and that is reflected at this early stage of the project – there are a lot of risk around mitigation, engineering, etc.
- Q: *David Andrews:* I hope you don't get same results that we recently got around cost escalations?
A: *Michael Savidant:* We have seen the same escalation rates and have assumed them going forward.
C: *Mina Laudan:* It is important to remember that this is an early interim cost estimate and that it will be updated at the end of stage 2.
- Q: *Michael Walsh:* So there is a risk reserve?
A: *Mina Laudan:* Right but it is not specific.
Q: *Michael Walsh:* Does that have a plus or minus accuracy of 25%?
A: *Michael Savidant:* It is too early to say - this is earlier than that.
- Q: *Chris Oakley:* I think we talked about this earlier and around the assumption about the existing transmission lines, is that assumption that they are okay when you get to the core?
A: *Michael Savidant:* That depends on what else but we may need upgrades according to a recent study from the British Columbia Transmission Corporation (BCTC) – there may be upgrades on stations needed but based on the portfolio we don't believe it would be triggered to the point of connection.
- Q: *Craig Aspinall:* So there is not going to be another major transmission line?
A: *Michael Savidant:* That is not our call and is not in our base estimates - that is BCTC and I don't want to guess.
Q: *Craig Aspinall:* Is your group mandated to look at P3⁴?

⁴ Private Public Partnerships

A: *Michael Savidant*: We are required to do a full review of procurement options including P3s but Site C would be a government owned asset. We would look at the range of options.

Q: *Craig Aspinall*: What stage would the decision be made?

A: *Michael Savidant*: Serious market sounding would not happen until Stage 3.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Mina Laudan

Q: *Cristenel Serban*: How do you plan to finance?

A: *Michael Savidant*: That would be part of the procurement options.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 12-noon.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

VANCOUVER MULTI-STAKEHOLDER MEETING

October 15, 2008

Notes from a multi-stakeholder meeting held with representatives of the Site C Project Team on October 15, 2008 at the BCIT Downtown Campus, Room 282/84 555 Seymour Street, Vancouver, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
John Nunn, BC Hydro
Randy Reimann, BC Hydro
Michael Savidant, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Gwen Barlee, WCUC
Rand Chattejee,
Tony Dean
Dick Doerksen (Retired Forester)
Pat Funk
John B. Gosling
Bob Handel, Retired BC Hydro
Nicholas Heap, David Suzuki Foundation
Jim Hope, The Nature Trust
Jason John, PSI Fluid Power
Lea Johnson, Johnson Management Inc.
Laurie Kelsey, Flatiron
Andy Lewis, EMCO Geosynthetics
Bruce McArthur
Jeremy McCall, Outdoor Recreation Council
Rod Meares, Meares Enterprises Inc.
Daniel Millar, Environment Canada
Adrienne Peacock, PVEA
Ann Peters, Northwest Wildlife Presentation Society
H. Leslie Smith
Jane Sterk, Green Party of BC
W.F. (Tommy) Thomas
Joe West, Retired BC Hydro
Des Wilson, PVEA
Jeffrey Young, David Suzuki Foundation

The meeting was called to order at 2:00 p.m.

KEY THEMES:

- Participants encouraged BC Hydro to pursue options other than Site C including conservation, net metering, wind, tidal and other renewable electricity options.
- Participants were interested in keeping the proposed reservoir as flat as possible, citing benefits to recreation and noting that the upstream dams could minimize the need for greater fluctuation on Site C.
- Participants questioned whether B.C. needs the additional power Site C would produce. They expressed concern that the energy generated from Site C would be exported rather than used domestically.
- Participants recommended that BC Hydro do a full cost-benefit analysis of the proposed Site C. An ecosystem, natural capital services study was suggested to give stakeholders more information with which to make decisions about Site C.
- Some participants suggested that Site C would have less impact than many smaller independent power projects and that Site C would create opportunities to train and employ local workers.

1. Welcome and Introduction of the BC Hydro Project Team

Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator

Provided a brief overview of consultation methods, materials and the agenda

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names we apologize for any misspellings.

3. DISCUSSION GUIDE

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bchydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

Page 2 – Environmental Assessment and Other Regulatory Processes

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

Q: *Dan Millar:* Energy and capacity what is the difference? When I look at the first paragraph, the math doesn’t seem to add up on Page 4.

A: *Randy Reimann:* Capacity is the rate at which you can produce the energy at any one instance or how much power you can put out from the dam and the energy then is how much work you are putting out over the year and the extent to which you can keep going. The reason the 4600 is lower than the 900 is: maximum output of a thermal plant would be 900 megawatts times 8700 hours in a year and there is a limited amount of water in a reservoir and the energy is based on the water inflows.

Q: *Dan Millar:* With respect to energy demand – you use what you need, isn’t that right?

A: *Randy Reimann:* Right and with a dam you can turn up the capacity when you need it and then turn it down when you don’t need it.

C: *Dave Conway:* I will just add one point here – the reservoir is not there for water storage it is there for head on the turbines to turn the generators. All the water stored just behind the WAC Bennett Dam, in the Williston Reservoir, has between two to three years water storage.

Q: *Nicholas Heap:* What is the gigawatt hour of production?

A: *Dave Conway:* 14,000 gigawatt hours depending on the water year.

Q: *Joe West:* What is maximum and minimum head usage?

A: *Michael Savidant:* Head is the difference between the water level at the top of the reservoir and the river downstream and is directly related to how much energy you can produce. Site C, is projected to have, 50 meters of head and 1.8 meter operating range.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C – Dave Conway

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

There were no comments received.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Randy Reimann

- We are a regulated authority and we produce a long term acquisition plan (LTAP) and you can view the 2008 LTAP under the BCUC's¹ web site.
- One of the things we do, when we create the plan, is that we look at what is available and then we look at what we will need to meet our customers need.
- Demand side management is first.
- We asked our customers etc. to sit down with us and work with us to develop options which eventually led to the LTAP.
- Key issues, from a resource option perspective, is thermal versus clean and thermal is available (stockpile and reliability), it is a flexible resource but the big concern is carbon emissions and any new thermal resources must be 100% off-set.
- The other side is clean resources – small hydro and wind resources.
- Wind and small hydro tend to be intermittent and need to have other generation there to pick up the difference.

Page 8 – Resource Options Comparison – Randy Reimann

Page 9 – BC Resource Options Comparison

Q: *Des Wilson:* There is no mention of geo-exchange on your comparison table and this is very efficient. What has hydro done and what is the dollar value?

A: *Randy Reimann:* Our first line of defense is demand side management through conservation measures and heat pumps are good. We try to target those technologies that limit the amount of electricity used.

Q: *Des Wilson:* Have you done the analysis to see what off-sets there are as opposed to Site C?

A: *Randy Reimann:* Demand side management is quite aggressive and we have targeted by 2020 to have at least 50% of BC's new energy needs met through conservation. To inform that number we undertook a consultation review and we evaluated options and we have done as much as we believe we can achieve.

Q: *Jeremy McCall:* We are concerned about endangered rivers in the province and on Page 8 I am questioning the figures – can you take that back?

A: *Randy Reimann:* With respect to the small hydro facility we have to consider years of flow and then take the flow average and get average energy so a minimum flow year is about 70% firm energy.

C: *Michael Savidant:* Or to put it another way - about 13% dependable energy.

¹ British Columbia Utility Commission

- Q: *Adrienne Peacock:* Why is net metering not possible? With respect to the earlier geo-example are you saying that assessment of saving in demand would be included in the 13,000 gigawatt hours a year?
- A: *Randy Reimann:* Yes.
- Q: *Adrienne Peacock:* Was that breakdown available at the BCUC hearings?
- A: *Randy Reimann:* Yes. With respect to net metering – we have a program that is open and is available and we support it.
- Q: *Adrienne Peacock:* Is that program available to anyone?
- A: *Randy Reimann:* Yes.
- Q: *Adrienne Peacock:* Has it been costed out?
- A: *Randy Reimann:* The cost is for the people to put into locations and is not our rates.
- Q: *Adrienne Peacock:* This is first time I am hearing about it?
- A: *Randy Reimann:* Information regarding the program is available on the BC Hydro web site.
- Q: *Dick Doerksen:* At the risk of being killed, why would nuclear not be listed as an option? For example, France is generating most of their energy now from nuclear.
- A: *Randy Reimann:* The government did take a look at nuclear and determined not to pursue it.
- Q: *Leslie Smith:* With wind power are there downstream adverse effects?
- A: *Randy Reimann:* None to my knowledge.
- C: *Siobhan Jackson:* There are considerations around migratory bird species however BC Hydro hasn't conducted impact assessment studies. Rather, those details are available through the Environmental Assessment Office and the applications by independent power producers.
- C: *Nicholas Heap:* You may be looking at costs on a project basis but there are opportunity costs on a provincial scale - Site C is a large cost, will take a decade to put into place and there are things we could be doing right now with the same level of resources if it was invested differently. For example; green generation, small hydro and wind but if we put in Site C the demand for electricity for other sources is eliminated and the ability to raise capital for the IPPs² is depleted, so we believe, if you put resources in on a small scale, it will save time, money and will create jobs. We have a real possibility of creating a new industrial sector and I would encourage BC Hydro to look at opportunity costs. I am glad to see that consultation took place in the north and I was glad to have this consultation here in Vancouver but it is very critical that those that are the most impacted speak and have their voices heard.

² Independent Power Producers

- C: *Joe West:* With respect to small renewable energy, I have great concerns about small private developed sites because they have short term contracts with BC Hydro and then they will be free to export electricity and they don't have to sell to BC Hydro but they will be using BC Hydro facilities and this will result in higher energy costs for the ratepayers and there is nothing we could do to stop it. This is reasonable but with respect to small renewal energy there is a grave danger and it does affect people and the environment.
- Q: *Pat Funk:* I was wondering about tidal and solar power and I got this information from the Courier newspaper. There was a BC company that BC wasn't interested in so they went to New Brunswick and then there was another company that had solar energy and they went to California – why don't we like them?
- A: *Randy Reimann:* The government asked BC Hydro, in their energy plan, to limit themselves to big hydro products. We haven't had a tidal project bid in to an energy call but we have been watching it and it is very much in the development phase. I believe you were referring to a company called something like Race Rocks and it was looking for investment capital to prove out the technology. Solar goes where there is the best sun and California rates are nearly double what they are here in BC and are more cost efficient. We had a government initiative to have 1000 solar roofs in BC but I am not sure where we are with that initiative.
- C: *Tommy Thomas:* With respect to your comments about tidal, there was a study on tidal, at UBC, and the biggest problem is slack tides and they go out quickly but at the Bay of Fundy the tides are high and fast and you can get more power out of the Bay of Fundy than you can get at Race Rocks.
- Q: *Lea Johnson:* I have noticed that there is an absence of economic evaluations on the project – did you do a cost-benefit analysis and also what was the economic value to our community?
- A: *Randy Reimann:* On Page 8 (Discussion Guide) there is an adjusted unit energy cost which is an indication of the attractiveness of the resource. When we do in the long term acquisition plan is that we look out at 20-years and then we look at the trade-offs and ask what are the cost effective outcomes? We know that demand side management is very cost-effective. Clean resources are competitive and then when the BCUC accepts our plans we do an energy call and then we evaluate the responses for price.
- Q: *Lea Johnson:* Do you include future best price for the consumer, how much revenue and how much price for consumers in the future?
- A: *Randy Reimann:* It is based on 20-years and is a levelized cost and that is what is compared but it doesn't speak to a 40 year horizon. A facility would be replaced at market price.

Page 10 – Map of Peace River Country – John Nunn

Page 11 – Powerhouse Access Bridge and Associated Access Roads

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

Q: *Lewis Smith:* Is there a longer road to Hudson Hope?

A: *John Nunn:* Yes, the map is only showing the road under consideration.

C: *Siobhan Jackson:* This road essentially goes up the middle for those that haven't been there and it would be a shorter road between communities.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

Q: *Leslie Smith:* What water variation do you anticipate in the reservoir?

A: *Dave Conway:* Plus or minus approximately 6 feet looking at a flatter regime.

Q: *Leslie Smith:* So there would be an advantage for recreation?

A: *Dave Conway:* We have heard that from some of the consultations and less movement is more advantageous for recreation.

C: *Michael Savidant:* There are trade-offs including load factoring to increase the value to the ratepayers and firming up intermittent power.

C: *Adrienne Peacock:* I was up in the Peace this summer and I was there in the 1980's during the community hearings and this summer, when I was up for the Paddle for Peace event, I heard that people were very concerned about the general tenor of the Feedback Form - that it was what kind of mitigation compensation do you want, not do you want this period and that the options presented were not well explained and people were frustrated. You will get a lot of comments but it may not mean much because you are overlooking the opportunity costs that could be possible. That would be my comment. The Feedback Form is skewed as to what mitigation are you willing to accept rather than what do you think BC Hydro should actually be doing? What are the opportunity costs of doing other things?

Q: *Tommy Thomas:* There has to be 25-years of studies and records made on all of this and what they meant – has anyone compared? Are we more difficult to deal with than back then?

A: *Siobhan Jackson:* There are immense volumes of material and it is all available in the Fort St. John Community Consultation Office, some 400 exhibits related to the hearing. That was 25-30 years ago and assessment

values have changed, the river has changed and the eco-system has changed and most the studies were in the 1976 period and I am not sure that we would want to rely on those studies given that requirements have shifted. I have read many of those reports and they are helpful and interesting but they are not data to rely on today.

Q: *Jane Sterk:* Have the people in the Peace been asked if they want the dam? With respect to regional employment and skills the focus is on construction and I think that it would be astonishing to focus on that and not the long term increase in employment.

A: *Dave Conway:* We have heard a range of opinion from people as to whether they want the project or not and we have asked people to provide their feelings and perspective. In the Round 1 consultation we received 22 submissions. In regards to the benefits there is a short term benefit with respect to jobs because at the peak of construction there will be 2,500 new jobs in the region, 50 people will require long term positions in the facility (operation of Site C) but skills training can carry over and we are looking much broader then the project.

C: *Jane Sterk:* It just seems like there is no long term community benefit – I hear that people don't want it and should have some consequence greater than the destruction it (the project) will create.

C: *Facilitator:* There are a summary of consultations on the BC Hydro web site and that includes those that have stated their opposition to the project. As well on Page 29 – 1(b) of the Discussion Guide there is a specific question about whether you support or do not support the project.

Q: *John Gosling:* Why is there variation in the lake - couldn't it be maintained at zero level? You seem to imply that if you did that it would reduce energy?

A: *Michael Savidant:* You can operate the reservoir to a tight operational bound but it is never perfectly flat because there are inflows into the system and there is trade-offs and if the reservoir is operated flat then there will be variations in river flows downstream. Varies tributaries will come in to the system and downstream and you will see more fluctuation. You will lose the value from the project by creating an inability to shape generation in periods of most demand in BC for example more daytime demand than at night time.

Q: *John Gosling:* Can you not draw down Williston and the Peace Canyon Dam and then the bottom pond doesn't have to move at all – you would be generating at 3 levels?

A: *Michael Savidant:* We would be giving up the value of shaping capability and that also ignores the inflows from tributaries especially during spring and summer. So there are trade-offs to operating a flat reservoir.

- C: *Siobhan Jackson:* At a total of 6 feet fluctuation this would be one of the most stable reservoirs in the BC Hydro system and most of the variability would be happening with the upstream plants however there are downstream water management concerns and flood control is one reason why flexibility is desirable. That is a context and this would be one of the tightest bands in the system if the project was to proceed.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – John Nunn

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

Page 18 – Reservoir Preparation Considerations Table

Page 19 – Impact on Resources; Looking Ahead

- Q: *Joe West:* What percentage of reservoir area to be flooded are ALR³ and what percentage is owned by BC Hydro?
- A: *Siobhan Jackson:* 5340 ha will be flooded and about half of that is crown land and of the remaining private parcels BC Hydro owns about 50% of them – so approximately 75% of the land. We are updating that information right now and we will be studying whether it is ALR land and/or currently cultivated land – we have to rerun those numbers. 2800 ha of Class 1-3 lands and of that there is about 100-200 ha of Class 1 however we must do those numbers again.
- Q: *Gwen Barlee:* My question is around the need for whether BC Hydro needs Site C and I hear that BC Hydro is a net importer (of power) and can you explain why Teck Cominco has an export license and has exported 1000 gigawatt hours and why hasn't BC Hydro bought that energy? A lot of the IPPs are intermittent and energy needs to be backed up so how much is needed for back-up?
- A: *Randy Reimann:* We couldn't reconcile those figures and Stats Can pulled their figures from many utilities - we go by our reports. Teck Cominco has their own facility and we don't know how firm their surplus is.
- Q: *Gwen Barlee:* It is surplus to our needs and isn't it odd that we wouldn't buy the power?
- A: *Randy Reimann:* Not necessarily.
- C: *Michael Savidant:* We would buy if it was offered to us at a fair price but they (Teck Cominco) would make the decision.
- A: *Randy Reimann:* With respect to your second question about back up that goes back to my earlier answer relative to capacity and energy. Capacity to meet peak load and energy ability to meet load over the year so for a lot of utilities if you buy intermittent you can turn down the thermal but you can always meet peak with reservoirs because we store power by not

³ Agricultural Land Reserve

releasing the water and what we need to make sure of is that we always have enough capacity.

Q: *Gwen Barlee:* Is that a subsidy?

A: *Randy Reimann:* In the analysis and acquisition process we look at: cost of fuel, integration, carbon off-sets, value to the system and delivery price etc. The more remote the higher cost.

Q: *Des Wilson:* Recently it was documented by Marvin Shaffer and another consultant that we don't need the power?

A: *Randy Reimann:* Government has laid out its expectation and the key aspect is self-sufficiency and BC Hydro is not to rely on US markets or Alberta for our power. We have to make sure we can supply own needs.

Q: *Des Wilson:* So why are we giving them (US) power?

A: *Michael Savidant:* On a net basis across the year we are the net importer and we try and maximize value for the ratepayer but we buy more than we sell. We buy low and sell high.

Q: *Des Wilson:* So this is an economic argument?

A: *Michael Savidant:* On a net basis it is a supply argument - if you stopped exporting you would buy less.

Q: *Des Wilson:* If you bought less, how much less than what you would generate at Site C?

A: *Michael Savidant:* We would still need to buy if we never sold at all and it all depends on load forecast and water supply.

Q: *Adrienne Peacock:* In the plan, how much difference is the critical load water system?

A: *Randy Reimann:* We have a 60 year historical water record so including reservoirs and the ability to store years we look at a 4 year period and that is the critical water year. By 2020 we should be self-sufficient.

Q: *Adrienne Peacock:* This is one of the issues that was disputed in the 1980's at the Commission and is it reasonable when you can import that you have to plan for a 4-year low water year? How much could you save if you just imported in low water years and didn't have to have energy available?

A: *Randy Reimann:* You are talking about non-firm market allowance and I don't have that figure with me but with the BC Energy Plan we are directed to rely on critical water and our plans must take that into consideration.

Q: *Rod Meares:* I see that the present capacity is short of requirements by around 30% and by 2026 we would need to double present capacity – has BC Hydro considered the conversion of transportation from bio-fuels to electricity and by how much? Converting from fossil fuels to electric cars?

A: *Randy Reimann:* The short answer is a qualified yes. Electric vehicles have been out there for a long time but there have not been a lot of electric

cars built at this point and we are looking at that question and trying to assess that and what the take-up will be. As well we are looking at other fuel switching.

Q: *Rod Meares:* But aren't the first electric cars supposed to be here by 2010?

A: *Randy Reimann:* Yes, the first cars and then the North American market and it looks like the ramp up will be quite slow and we don't see a lot of manufacturing capability.

In the interest of time, the record notes that Page 20 (Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock) and Page 21(Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead) of the Discussion Guide were moved to the end of the presentations and the sections on environment and land use were moved forward. Members of the multi-stakeholder group agreed with this move.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Siobhan Jackson

Page 23 – Stage 2 Baseline studies underway or planned

Q: *Bruce McArthur:* I am curious about the First Nations consultation because they don't seem to be part of the consultation. Don't you perceive land use issues?

A: *Siobhan Jackson:* BC Hydro has a separate First Nation consultation underway because of the unique legislative requirement to consult with them. The studies affecting First Nations are listed on Page 23.

Q: *Bruce McArthur:* So any land issues with respect to the amount of land to be flooded – are any of the lands First Nations land?

A: *Siobhan Jackson:* There are no reserve lands – the area is covered by Treaty 8 and so their rights are specified within the treaty for use of resources.

Q: *Bruce McArthur:* Is the same true for the transmission lines?

A: *Siobhan Jackson:* Yes.

Q: *Gwen Barlee:* What do you mean by compensation for species at risk and habitat compensation areas - reference Page 22 second paragraph?

A: *Siobhan Jackson:* The environmental assessment process will take what we know is living in the valley and look at impacts and then look at mitigation. For example, move the road so as to not affect the habitat. Look at options to change then create or recreate and it is dependent upon the species. For example, on the dam face there are opportunities to create nesting features. With respect to a raptor nest, you can create platforms etc. The north bank of the Peace River has high and low bank features and through engineering we will look at physical works, barriers, to create habitat. There is about 277 kilometers of shoreline and we look at what opportunities there are in Stage 3.

- C: *Adrienne Peacock:* I am pleased to see you are redoing the studies because back in the 1970s the wildlife data consultant stated at the hearings that they didn't feel the studies represented quantitative results. Starting from scratch and leaving 7 years to do it is a good thing.
- C: *Joe West:* I have to go but I just want to say that when you compare the value of 900 megawatts with private production and when you compare one Site C with the dozens of small plants I think the impacts are greater with the hundreds of small plants than one Site C. Multiple small units will impact far greater than Site C. Thank you.
- C: *Facilitator:* I would just like to remind everyone that the deadline for feedback is November 30th.
- Q: *Jim Hope:* In the earlier consultation, about six months ago, we talked about conventional wildlife assessment versus overall project footprint and bio-diversity - have you given any thought to that?
- A: *Siobhan Jackson:* An impact assessment methodology will be developed and we will consider your comment within that context.

Page 24 – Land Use; Agriculture – Siobhan Jackson

Page 25 – Forestry; Mining and Oil and Oil and Gas

Page 26 – Potential Land Use Effects

Page 27 – Information Item – Transmission Lines

- Q: *Des Wilson:* Doesn't the ALR have data?
- A: *Siobhan Jackson:* Our numbers are historic – Class 1 land is about 100-200 ha and total Class 1-3 lands are about 2800 ha.
- Q: *Des Wilson:* There was a flood reservoir on the area therefore what is the agricultural level of the lands?
- A: *Siobhan Jackson:* This is what I was referring to earlier; what the soil is capable of and what it is being used for and people asked us to develop an assessment in 2001 and Dave Conway was part of that assessment and I will let him speak to that.
- A: *Dave Conway:* At that time we undertook a comparison of Site C, Taylor and Grimshaw, Alberta and results showed little or no impact from holding lands in the flood reserve. There was not a lot of economic loss.
- Q: *Des Wilson:* Is there no restriction on farming now?
- A: *Dave Conway:* Do you mean the leases?
- Q: *Des Wilson:* If I was to farm wouldn't I have 90 days to get off the land according to the terms of the lease?
- A: *Siobhan Jackson:* The land that BC Hydro owns is leased back but I don't know the details of the lease.
- A: *Dave Conway:* We could look at the lease terms and get back to you.

- Q: *Adrienne Peacock:* With respect to the flood reserve can a private property still sell to anyone?
- A: *Siobhan Jackson:* A flood reserve is an Order-in-Council and it doesn't dictate how land can change hands. In the 1980s BC Hydro had a passive land acquisition program and if approached by the land owner BC Hydro would buy the land. If the project went ahead the procurement would have a 7 year period and that is a very long period of time and there is another decision point before that so it is a very long period of time and the flooding component would be at the end.
- C: *Dave Conway:* A recommendation that came out of the study was that the leases were too short and subsequently we increased the lease time.
- A: *Siobhan Jackson:* The socio-economic study is on the web site.
- C: *Jeffery McCall:* I have the following recommendations: there is a need for a full cost-benefit analysis and I would recommend a full eco-system natural capital services study – for example, a carbon surge from the trees being lost and off-sets. I believe that we need this study in order for stakeholders to be able to develop and make an accurate decision about the project. Additionally you have to consider downstream impacts beyond 2 kilometers.
- A: *Siobhan Jackson:* I would like to clarify what I said and that was wildlife studies will be a full 60 kilometers with the 2 kilometer for an upland buffer.
- C: *Jeffery McCall:* I would recommend that you consider additional impacts such as climate change impacts, water flow, cost-benefit analysis and land value assessments.
- A: *Siobhan Jackson:* I would just to review the studies and there will be a GHG⁴ study looking at net carbon and trees storing and releasing. A net GHG study estimate and with respect to climate change impacts – BC Hydro is already working system-wide as part of a pacific consortium of universities as to whether we should we making modifications to the 60 year historic water records or should we assume every year and any changes would be applied to the operating regime of Site C. Finally the Peace is filled by precipitation.
- C: *Facilitator:* We will take those comments as information.
- Q: *Nicholas Heap:* Will you be looking at climate change on the value of agricultural lands flooded?
- A: *Siobhan Jackson:* No.
- C: *Adrienne Peacock:* This time we are hearing it is IPP or Site C and last time it was Site C or coal and I am glad to hear you are doing GHG studies but I don't know how you will compensate for land that is lost and land that is also critical for wildlife – let me read you a quote: “if a

⁴ Greenhouse gas

government has no respect for its land base then it has no respect for its people.”

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – John Nunn

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

Q: *Jane Sterk:* If BC Hydro felt that the government’s decision to overbuild capacity for extraordinary reasons, I am hearing you say, you don’t have the power to tell government; and, is your overbuilding of capacity related to the tar sands? Today, I was across from the Hotel Vancouver and in the Louis Vuitton shop window I saw 21 spotlights on one shoe and that speaks volumes to greed and wastefulness and how we live our lives and whether we should destroy lives and a valley so that people can live like that.

A: *Randy Reimann:* Government puts out an energy plan and there are special requirements and we follow it because it is the law. This project is not linked to the tar sands although I know that they are talking about surplus electricity. With respect to your last comment, we are trying to change people’s perspective with the demand side management program.

C: *Tommy Thomas:* I was involved in Norman Wells and 25% of the labor force there had to be local – Dene First Nations and we converted them into skilled workers and some of them remained in the north and are now working in the diamond mines and others followed the pipe lines to Saudi Arabia for example. After construction of Site C it is possible that there will be skilled workers and it is not a waste and I totally don’t believe that. A big project will train workers and add to the worker pool in Canada.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Dave Conway

Thank you attending and note that the open house is November 5th at SFU Harbor Center.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 4:15 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

LOWER MAINLAND BUSINESS STAKEHOLDER MEETING

October 16, 2008

Notes from a stakeholder meeting held with representatives of the Site C Project Team on October 16, 2008 at the YWCA Vancouver (535 Hornby Street, Vancouver, B.C.).

PRESENT: Nancy Spooner, Kirk & Co. Consulting Ltd., **Facilitator**
Mark Bowler, BC Hydro
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Cam Matheson, BC Hydro
John Nunn, BC Hydro
Michael Savidant, BC Hydro
Chris Horwood, Kirk & Co. Consulting Ltd., Recorder

STAKEHOLDERS: Maureen Bader, Canadian Taxpayers Association
Jim Bromley, Harris Rebar
Byng Girard, Mining Association
Phil Hochstein, ICBA
Norm Jorgensen, Harris Rebar
Paul Labranche, BOMA
Bernie Magnan, Vancouver Board of Trade
Pascale Mera, Golder
Bill Michoulas, Peter Kiewit Sons Co.
Blair Smith, Pennecon Heavy Civil Ltd.

The meeting was called to order at 10 a.m.

KEY THEMES:

- Participants felt the level of participation in Round 1 was relatively limited and expressed concern that decisions were being made based on too small a sample size.
- Participants expressed interest regarding the extent to which BC Hydro may learn from other projects to reduce costs.
- Participants were interested in the procurement strategy for Site C.

- Participants were interested in the efforts being taken to mitigate potential local impacts, especially environmental impacts.

1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders

Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. DISCUSSION GUIDE

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bchydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First...Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

There were no comments received.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

There were no comments received.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead

There were no comments received.

Page 8 – Resource Options Comparison

- Q: *Maureen Bader:* You've got here that small hydro has a 13% dependability capacity. Is that based on your current experience in this province with small hydro run-of-river projects or is it simply a mathematical calculation?
- A: *Cam Matheson:* Actually both.
- C: *Cam Matheson:* We've had enough experience now operating small hydro here. It is a little different in a northern climate, the rivers and small streams that run the small hydro can freeze up in the winter time and it is in the December, January, February months when the peak demands occur on the system. So they have fairly low capacity values for that reason. South of the border, particularly in the southwest in the US, would have a different profile and they would still have a low capacity number but they might be different for that reason. Here they would freeze up when we need them the most.
- Q: *Maureen Bader:* But don't you still get some flow through?
- A: *Cam Matheson:* Not necessarily. Some of them freeze up entirely and don't produce at all. Not all of them, some of the coastal ones would be able to produce in the winter but then they would dry up in the summer.
- Q: *Paul Lebranche:* Why did the provincial government rule out nuclear as an option?
- A: *Cam Matheson:* I may not be the best person to answer this question. I am not speaking for the government but I can only surmise that: A) the provincial government does not believe it is necessary because in this province we have such good hydro electric potential and B) they don't believe the public would support it in a political way.
- Q: *Maureen Bader:* If Alberta built nuclear would we be able to import?
- A: *Cam Matheson:* Yes, there are no restrictions on the type of energy that is imported.
- C: *Cam Matheson:* We import and export energy hourly and it would be impossible to set restrictions. As electrons end up on the western continental grid, there is no way to differentiate between the sources. For example if coal represents 40% of the general energy generated on the Western Continent than we can assume that 40% of what we import is Coal. One of the real values of having a large hydro system like ours is

that you can store potential energy in our reservoirs in the form of water and operate the turbines instantaneously to generate energy when the markets are favorable. When the markets spike to a very high price, we can turn those generators on and sell it to the market place and when the markets tank we can stop generating energy and buy from the market when it is low. This is one of the key reasons BC Hydro rate payers enjoy some of the lowest rates in North America. That is a very different question than the question of annually importing energy which is what self sufficiency provision is intended to resolve or stop. On a net basis at the end of the year if we have bought more energy than we actually have sold we are a net importer. It's that continued reliance on foreign markets that the Provincial Government and their 2007 energy policy intends to stop. 7 out of the last 8 years we have been a net importer of energy.

Page 9 – BC Resource Options Comparison

There were no comments received.

Page 10 – Map of Peace River Country

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results

There were no comments received.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

There were no comments received.

Page 18 – Reservoir Preparation Considerations Table

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead

There were no comments received.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

- Q: *Paul Labranche*: What are the advantages of an earth filled dam over concrete?
- A: *John Nunn*: When the project was first studied in the early 70's, it was studied as a concrete dam like Peace Canyon but the bedrock foundation is shale which is not particularly strong rock. It is just not feasible to base a concrete dam on those foundation conditions. In the mid-70s when they began drilling they discounted the possibility of concrete.
- Q: *Bernie Magnan*: One question with the impervious materials. Would you consider allowing different proponents while bidding to do their own investigation? It is a big risk with material shortage.
- A: *John Nunn*: The procurement strategy has not yet been identified as it is so far in the future.
- C: *Bernie Magnan*: For what we have found is that our own investigation is a win-win situation for the owner and for us. We are more confident on our quantities and our estimate proposal. That would be a win-win situation for you guys for it would eliminate the claim situation later on.
- C: *Michael Savidant*: That would come down to what we find. Generally you want as much information as possible.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

There were no comments received.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies

- Q: *Maureen Bader*: How much are you spending on this?
- A: *Siobhan Jackson*: The total budget for Stage 2 for all tasks is \$41M
- Q: *Maureen Bader*: And just for the studies?
- A: *Siobhan Jackson*: The environmental budget for Stage 2 is roughly \$10M

- A: *Michael Savidant*: For all of the project definition environmental & engineering studies I believe it was \$10M to \$12M. The budget has been filed as part of the project component.
- C: *Siobhan Jackson*: Some on the context on what happens in these studies which drives the budget for environmental work. If you look at the maps on page 10, what you will note is the long linear corridor. It's an 83km stretch of reservoir and then you follow it downstream to understand the habitat which extends the study 60km to the border. There are 140km of current river stretch that is part of the study. Depending on where the habitat is – study costs will be affected by access and size of the study area. There might not be road access to get to the habitat for the study.
- Q: *Maureen Bader*: So you have to helicopter in?
- A: *Siobhan Jackson*: Yes.
- C: *Siobhan Jackson*: Tracking studies such as telemetry to understand fish movement also uses flight. You are picking up radio signals on foot, helicopter and fixed wing access. Those are the kinds of tools that are used to complete the field components of the study.
- C: *Maureen Bader*: Just to be clear, radio signals off fish?
- A: *Siobhan Jackson*: Yes. It's called radio telemetry.
- Q: *Pascale Mera*: When will you be making a decision as to whether you move to stage 3 and what would be taken into account to make that decision?
- A: *Dave Conway*: To recap, we finish stage 2 with a report and a recommendation to government. We are expected to deliver that report and recommendation by fall/ winter of 2009 and then the decision to move to stage 3 is the provincial government's decision and they will let us know if we are to move ahead.
- Q: *Maureen Bader*: Just going back to this tagging fish business, how many of these fish get caught by local fisherman?
- A: *Siobhan Jackson*: I don't know right now. There is a creole survey in play and we may get more information from that.
- Q: *Maureen Bader*: How many of those caught in one year would survive to the next year?
- A: *Siobhan Jackson*: Many of them survive. Some of these species can live a really long time. We track them as long as the radio signal is viable which is generally 2 to 3 years.
- Q: *Maureen Bader*: Do you have a program where fisherman can send the tags back in?
- A: *Siobhan Jackson*: Yes, I think the fishermen do that.
- Q: *Maureen Bader*: How many do you get in a year?
- A: *Siobhan Jackson*: I don't know
- Q: *Maureen Bader*: Could you find out?
- C: *Dave Conway*: Bull trout that were being caught with tags on them but those fish are part of a catch and release program. The fishermen catch

them and then put them back into the river. If you do end up with a tag, you would return it to the ministry. There is a telephone number on the tag normally.

- C: *Siobhan Jackson:* One of the considerations for the types of tags that we use is where the tag will end up. One example is that we're doing a radio collar program on ungulates this winter and our choice of selection of the type and therefore the price of collars is highly affected by where we think those collars will end up. So with ungulates there is a lot of hunting in the region and we're selecting an appropriate collar for that purpose.
- Q: *Phil Hochstein:* The existing Williston Dam is a lot larger than Site C. Do we know the various environmental impacts and how the species have adjusted to the flood area. Have they adjusted? Have they adapted? We are doing a lot of work trying to mitigate things that are going to be mitigated anyways by natural factors.
- C: *Facilitator:* I want to make sure that Chris has that question. Do you mind repeating your question? You're talking about have we learned from other experiences.
- Q: *Phil Hochstein:* The other reservoir, the Williston reservoir, the magnitude is larger than the one we're proposing to build. The environment must have been adversely affected and the environment has probably adjusted such as the ungulate and fish. I would assume there has been some adaptation from that flooding many years ago without the mitigation we're talking about, without spending the money that we are proposing to spend. Have we determined how the species, all the things that you are studying now, have adapted to the reservoir that existed – before we do all the work that we have proposed to do?
- A: *Siobhan Jackson:* Your first statement that the other reservoir is much larger and is a different operating environment is true. It is a very different operating environment in Williston. This is very much the key to exploring your question. What is the right environment to compare to what Site C will be? We would probably argue that Williston is not. Site C is a much different physical setting than Williston even though it is in the same region. The operating environment of Site C, the volume of water, the time of the water that would stay in the reservoir, all these components that make up the natural environment and they are probably more aligned to a reservoir like Revelstoke than Williston. I will point you to the fish and aquatics list on page 23, there are a couple of items that we look for in similar situations to better predict how the natural environment would sustain Site C. Particularly on the aquatics side, we are looking at Dinosaur Reservoir to understand some of the water quality issues, issues with temperature and the environment. We will also be looking at it in terms of the reservoir, fish, etc. In terms of your question, we need to know where we should look for a similar environment to predict the

future. The Williston Reservoir has quite a large shoreline. Really in any natural disturbance or a very large man-made disturbance like that, you have to wait for it to reach its natural equilibrium environmentally. The reservoir of Site C is much smaller and may offer more opportunities that will affect mitigation and that can actually affect population level. We can look for targeted opportunities that will influence the outcomes in a smaller lake like that and with a much more stable shoreline, which is where most of the habitat features exist on Site C.

Q: Phil Hochstein: It would naturally evolve to the state, but how does it get there faster?

A: Siobhan Jackson: We could plan some mitigation activities to drive some of those spots into what their future state would be more realistically. Any environment will reach its natural state eventually. We can look for mitigation opportunities to manage outcomes more realistically on the body of water the size of Site C.

C: Dave Conway: In the Williston Reservoir and Dinosaur systems behind Peace Canyon there are fish compensation programs to address footprint issues related to building those two facilities. There was a nominal fund created of \$10 M set up for the Williston Reservoir in the late 80s, with an additional \$1 M for the Dinosaur Reservoir. These programs are ongoing to study and create habitat but also to look at the impact that the reservoir is still having on species. There are about 300 to 400 studies posted on the BC Hydro web for a range a studies. There are a lot of ongoing studies.

Q: Paul Labranche: Just looking at the picture on page 10 – the Site C reservoir is that existing or how it would look if the dam is actually built?

A: John Nunn: That's what it would look like if the reservoir was there. Best way to look at it is if you look at the existing river. If you built the dam in front of the reservoir it would be 2 to 3 times wide. So, it's a very skinny reservoir.

C: Dave Conway: In most locations, there are some area where it is fairly flat. The Halfway River Area and Bear Pass, which is leading to the escarpment leading to Fort St. John will be 5 times larger in those areas.

Q: Paul Labranche: So, it will be a similar size to Revelstoke?

A: Cam Matheson: The proposition is the same as Revelstoke. Revelstoke has a large storage facility up behind the Mica Dam. It releases water that isn't intended to be stored behind Revelstoke, it is meant to provide the hydrologic head that produces the energy so the water essentially runs through but isn't stored. One way to look at it is when Williston was filled it took the better part of 4 years to close the river down and actually fill the reservoir, Site C will take about 3 weeks.

Q: Byng Girard: What agencies in addition to SIA and DAO will you need regulatory approvals from?

- A: *Siobhan Jackson*: The major processes are in the Canadian Environmental Assessment Act and the BC Environmental Assessment Act. Within the BC Environmental Assessment Act you can apply for concurrent approval of the longer list of permits. There is always a longer list. The review process is designed to consider all of those within the BC and Federal Assessment. So for example, a water license application could be reviewed concurrently within the BC Environmental Assessment process.
- Q: *Byng Girard*: The Feds generally don't do that?
- A: *Siobhan Jackson*: The Canadian Environmental Assessment Agency would identify a responsible authority.
- Q: *Byng Girard*: Do you have a list of those?
- A: *Siobhan Jackson*: That is a Stage 2 task.

Page 23 – Stage 2 Baseline studies underway or planned

There were no comments received.

Page 24 – Land Use; Agriculture

- Q: *Maureen Bader*: How much of the land to be effected by the Site C Project is already owned by BC Hydro?
- A: *Siobhan Jackson*: Roughly 75% is owned by BC Hydro or is crown land – passive land acquisition program that was put in place in the early 1980's by request of the Utilities Commission where BC Hydro would acquire land if approached, but would not actively pursue it.
- C: *Maureen Bader*: So only 25% of the land to be affected is private.
- Q: *Maureen Bader*: How many lumber mills are still open in that area?
- A: *Dave Conway*: There is Canfor, LP, OSP in Fort St. John, LP and Tenback in Dawson Creek, West Fraser in Chetwynd and Fibre Co. in Taylor. Last I heard.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

There were no comments received.

Page 27 – Information Item – Transmission Lines

There were no comments received.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation

- Q: *Paul Labranche*: It doesn't look like a concrete dam, is that land fill?

A: *John Nunn*: It's an earth filled dam with concrete on the side which I will address more in a minute.

4. **Feedback Forms**

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

Q: *Phil Hochstein*: It seems that less than 1,000 people participated in the first round. For a project that affects everyone in the province that is a pretty small number. I am concerned with the public participation. What can you do to get people involved?

A: *Dave Conway*: It is always a challenge to try and get people engaged. We are advertising locally, regionally multi-stakeholder meetings throughout the province using the radio, newspaper, the internet and flyers.

C: *Siobhan Jackson*: For context, the population of Fort St John is about 20,000 people. For a regional context where most of the participants are from there, the participation rate (against total population) is fairly higher relative to the Lower Mainland.

C: *Facilitator*: Those were Round 1 numbers and we are now in Round 2 where there are 26 Stakeholder meetings, 7 Open Houses, one in Prince George, Hudson Hope, Dawson Creek, Fort Nelson, Taylor, Vancouver, and Fort St. John. All of which take place in November. These have been advertised in community newspapers, radio, as well as a mail out and online. A lot of effort has gone in. Historically in the first round which is establishing preliminary feedback from people there is less participation. The more people are reassured that there will be opportunities to add input as the stages proceed the more people will participate.

C: *Phil Hochstein*: People on your project team, the provincial government and BC Hydro run a risk of making a decision on such a small sample size. You risk misrepresenting the public opinion.

C: *Dave Conway*: The consultation aspect is just one of the factors in the decision-making process. The other factors are financial, project definition work, socio-economic studies, wildlife studies, etc, all of that is considered as well.

Q: *Pascale Mera*: Did you compile something similar for First Nations consultation?

A: *Dave Conway*: No. First Nations consultation is a parallel but a separate process. Right now a lot of the work is concentrated on Treaty 8 First Nations within BC. There are 6 First Nations in Treaty 8. They're working on defining the consultation process before moving forward. We're speaking with 26 First nations all together but they're not at this point yet.

Closing remarks:

- C: *Dave Conway:* There is no decision to move on from Stage 2 and if the Project does move onto Stage 3 that is a Government decision. There is consultation built into all of the regulatory processes. We are committed to including all input that we receive from both businesses and individuals which includes emails, faxes, and written submission. We have an office in Fort St. John where we receive feedback. The decision making process includes feedback and financial components and all the other project definition pieces. Thank you for taking part today and providing all your comments and questions. We really appreciate it.
- Q: *Phil Hochstein:* When are you going to think about procurement decisions? At what stage will you decide on things like labor relations, contracting strategy, procurement etc.
- A: *Michael Savidant:* That's undergoing a review right now as part of another Project Definition Process. A procurement decision would be a Government decision to be made in Stage 3.
- Q: *Phil Hochstein:* When you are gathering analysis who do you talk to about that?
- A: *Michael Savidant:* We will talk to the market and when we go to Stage 3 we will receive government and public input.

5. Closure

The small group meeting was closed at 11:47 a.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

MACKENZIE LOCAL GOVERNMENT

October 20, 2008

Notes from a stakeholder meeting held with representatives of the Site C Project Team on October 20, 2008 at the Mackenzie Recreation Centre (400 Skeena Drive, Mackenzie, BC).

PRESENT: Carolyn Butt, Kirk & Co. Consulting Ltd., **Facilitator**
Mark Bowler, BC Hydro
Dave Conway, BC Hydro
Debbie Bachmeier, BC Hydro
Wendy Lannin, BC Hydro
Kyle Robertson, BC Hydro
Chris Horwood, Kirk & Co. Consulting Ltd., Recorder

STAKEHOLDERS: Joan Atkinson, District of Mackenzie
Stephanie Killam, District of Mackenzie
Carla Seguin, District of Mackenzie

The meeting was called to order at 2 p.m.

KEY THEMES:

- Participants emphasized the importance of consulting with First Nations and long-time residents to gain intrinsic local knowledge, particularly in regards to the environment and wildlife in the Peace River region.
- Participants expressed concern regarding the sloughing of the banks and how this could affect access to recreation areas.
- Participants commented that given the current issues facing residents of the District of Mackenzie, the potential Site C Project is not a main concern..

-
1. **Welcome and Introduction of the BC Hydro Project Team and Stakeholders**
Round table self-introductions were undertaken.

2. **The Consultation Program – Facilitator**

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

- Q: *Stephanie Killam:* So you're doing your ground work at the same time?
- A: *Dave Conway:* Yes, absolutely. It's all ongoing. We're doing 70 studies of varying kinds. The information we receive will make up a report that will be filed with the provincial government the fall/winter 2009. From that report the government will make a decision as to whether they want us to move forward to Stage 3, which involves a full Regulatory Environmental Assessment Process as well as being in front of our regulator, the British Columbia Utilities Commission in regards to a certificate of public convenience and necessity which you have to have to be able to move beyond that to build a project.
- Q: *Stephanie Killam:* Was there one after Stage 1?
- A: *Dave Conway:* Yes, a review of the feasibility of the project was done after Stage 1 and government decided they wanted us to proceed.

Page 2 – Environmental Assessment and Other Regulatory Processes

There were no comments received.

Page 3 – British Columbia's Energy Needs are Growing; Conservation First...Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

There were no comments received.

- C: *Dave Conway:* We are continuing to buy renewable energy projects from independent energy products as well. We have been doing this since 2003,

the Mackenzie Green Project is a good example of one of the calls that we put out. Now, whether they are delayed by the present forestry situation or end up not developing the project is a choice they would have to make.

Q: *Stephanie Killam:* What's the consequence of them not developing the project?

A: *Dave Conway:* I would have to look into that. I'm not too familiar with that project, but generally speaking there is an expectation for a producer to finalize a project by a certain date, normally, if they do not, there is a penalty clause in the contract. But the situation here is one of those cases where there are aspects not in their control and so this would have to be considered.

C: *Joan Atkinson:* We actually met with TransAlta about two weeks ago.

C: *Stephanie Killam:* The wind power people. They came and made a presentation about the wind towers they are putting up on the other side of the lake on the Manson Arm.

Q: *Dave Conway:* The Aeolis Project?

A: *Stephanie Killam:* Yes, I believe so. They just finished consultation with the First Nations and they had taken some out because they were in touchy territory and they are going to keep us in the loop.

2:18 p.m Carla Seguin, District of Mackenzie joined the meeting.

Q: *Stephanie Killam:* Have they figured out that by keeping water levels high they'll get more use out of the water?

A: *Dave Conway:* Yes they have. More head means it's more efficient.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

Q: *Stephanie Killam:* Is it [Site C] basically similar to the WAC Bennett Dam?

A: *Dave Conway:* From an earth-filled perspective, yes. In terms of size, it's probably more comparable to the Peace Canyon Dam.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

There were no comments received.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead

There were no comments received.

Page 8 – Resource Options Comparison

- Q: *Stephanie Killam*: What do they mean by flexible?
- A: *Dave Conway*: The ability to be able to respond to the load. With both large hydro and with gas you can track the load and it's flexible.
- C: *Stephanie Killam*: My husband got the hydro bill today and there is now the carbon tax, you'll likely get lots of questions about that.

Page 9 – BC Resource Options Comparison

There were no comments received.

Page 10 – Map of Peace River Country

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

- C: *Wendy Lannin*: The purpose of this project is not to connect the two, but people seem interested in having access to the right bank for recreation or whatever.
- C: *Stephanie Killam*: The right bank though, from what I've seen going down the river, it's pretty slippery. It's already slipped a few times.
- C: *Wendy Lannin*: Ya, but it's far away from the river though.
- Q: *Stephanie Killam*: What's it like on the other side as far as farming?
- A: *Wendy Lannin*: It's all trees and there are some oil and gas fields, some First Nations lands, and a lot of fishing.
- C: *Mark Bowler*: There are some developing working ranches towards Chetwynd, a district which has been very interested in this topic and we have been polling people to see what they want.

- C: *Stephanie Killam:* I can see Chetwynd wanting to use it as a circle route, maybe there is gas and oil exploration there.
- C: *Mark Bowler:* There is quite a lot. There was a land sale last week in that area for \$180 million. It's also a favored area for deciduous trees close to Chetwynd – something to consider for the pulp mills. There are lots of reasons for access.
- C: *Kyle Robertson:* At the same time, Round 1 found that there were a lot of people who would prefer conservation in this area.
- C: *Stephanie Killam:* I'm sure, any woodsman, or any person who loves the outdoors would want to see it conserved so they could look at birds or go fishing, or whatever, and I think that's a lot of what you're going to get.
- C: *Mark Bowler:* And it's quite a large area on that south bank so...
- C: *Stephanie Killam:* I like to look forward, but I think there are some areas that need to be left untouched.
- C: *Dave Conway:* I won't presume to speak for the communities, but a lot of what we heard in Round 1 and 2 from Fort St. John and Chetwynd, they would like it from an aspect of a shorter route, and oil and gas from a perspective of accessibility. Chetwynd is concerned with the quality of the road, but the road connection is not within the scope of this project because it is not required. This type of discussion would have to occur with the Ministry of Transportation.
- C: *Stephanie Killam:* That's the push we see for different roads too, to keep communities viable.
- C: *Dave Conway:* Absolutely, Hudson's Hope has expressed concern about being bypassed and Dawson Creek has similar concerns, as well as access issues, conservation and accessibility to the right bank. We're hearing varying things, so that is why we need more information, more feedback.
- C: *Stephanie Killam:* I just wouldn't want to see any of the same mistakes made with the last one with this one.
- C: *Dave Conway:* And that's the value you bring from Mackenzie, because you have that experience – it is helpful when you provide that information.
- C: *Stephanie Killam:* That's why I asked about sloughing, depending on how high this one is. You'll notice how high ours is kept and much of our recreational areas can't be accessed now because of how high the river is. Since last May its sloughed 12 feet off, and the other thing is drift wood.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results

- C: *Stephanie Killam:* We get a certain amount of money from Hydro for being on the lake, are they looking at that?
- C: *Dave Conway:* We've heard many different models from different parties. A lot of what we've heard is infrastructure, but we need to figure out what that means?

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation

- Q: *Stephanie Killam:* Would saw mills have to bid on the marketable timber through the process?
- A: *Kyle Robertson:* I would suspect that these discussions will have to happen with the Ministry of Lands and the environmental regulatory agencies if we proceed to the next stage.
- C: *Joan Atkinson:* Certainly the Ministry of Forests would have a part in this.
- C: *Kyle Robertson:* Yes, certainly.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

- Q: *Stephanie Killam:* What about selling the waste to a power producer?
- A: *Kyle Robertson:* That is one option currently being considered, along with chipping, bio-fuels, etc. However, we would have to assess whether it would use more energy to transport than would be created. We could do composting, chipping, bio-fuels, etc.

Page 18 – Reservoir Preparation Considerations Table

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead

- Q: *Stephanie Killam:* How much farm land will be flooded?
- A: *Dave Conway:* Approximately 2800 hectares of class 1-3 soils and out of that about 100-200 which are class one farm land. .
- C: *Stephanie Killam:* There was a big panic that all this farmland was going to be flooded and I just wanted to know how much was really farmland that people could use.
- C: *Dave Conway:* About 2800 hectares of the 5300 hectares total that would be flooded is usable farm land.
- C: *Stephanie Killam:* Sounds like you definitely learned from the past. Before they were just in a hurry to make money and so they flooded and didn't take a lot of the trees out and now we have all of this drift wood.
- Q: *Stephanie Killam:* There must be a use for the drift wood here when you're looking at doing some reclamation, which I think you are. Right?
- A: *Dave Conway:* I'm not too sure about that. Is this part of the Water Use Planning Process?
- A: *Stephanie Killam:* Yes, I believe it is. There was talk about that, and I know that the First Nations are interested in that because there is a lot in their area.

- C: *Dave Conway*: There is a lot of work attached to the Water Use Plan, most of the terms of reference have been written and are presently in front of the water controller, or they are being written right now.
- Q: *Stephanie Killam*: Are they going to look at a Water Use Plan concurrent with what you have in place?
- A: *Kyle Robertson*: If Site C was to move to the next stage then the Water Use Plan would be integrated as we move forward.
- C: *Dave Conway*: Keeping in mind where we were when the WAC Bennett and Peace Canyon Dam were built and considering where we have evolved to today, what you would do differently, which is part of the integration, is include it in your water licenses, or your operating orders and then you don't have to worry about it as a separate plan.
- C: *Kyle Robertson*: I don't know the exact number, but its millions of dollars to deal with debris management.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

There were no comments received.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies

- Q: *Stephanie Killam*: Have you had a lot of people at your meetings, besides First Nations, that are trappers, etc?
- A: *Dave Conway*: No, we have had some, through the Pre-consultation and Round 1, but not a lot. Some from trapping, some from guide outfitters and we have certainly been involved with rod and gun clubs.
- C: *Stephanie Killam*: The other people that would have key information that might not come forward would be long time residents – like Granny Goodings is a perfect example. People who have been here for 35-40 years don't get into these things, but they could tell you where species are located, etc. Nowadays, the big issues are First Nations and environment.
- C: *Dave Conway*: We are also holding meetings in the Lower Mainland and on Vancouver Island and we have spoken to larger national and international organizations such as the David Suzuki Foundation, Canadian Wildlife Commission, etc.

3:00 p.m. Stephanie Killam had to leave the meeting early.

- C: *Joan Atkinson*: Part of the issue right now is that it's not in our back yard. If we lived in Hudson's Hope or Fort St. John you would get a bigger

response from our community. It just doesn't really matter to the regular citizens of Mackenzie right now. If you don't get a lot of feedback from regular citizens, it's not apathy, but just that we are dealing with bigger issues at the moment.

- C: *Dave Conway:* We appreciate that. One thing that came up during Round 1 is that we had a lot of questions about whether, if Site C went ahead, it would affect the water levels of Williston. The reason that Site C makes sense is that the reservoir is not there for water storage; all water storage for Site C is in the Williston reservoir, so the WAC Bennett Dam and the Williston Reservoir dictate the operation of Site C, not the other way around. This is an important message if you're talking to anyone in the community.
- C: *Joan Atkinson:* If we knew this project was moving forward you would get a lot more interest from the community because of possible employment opportunities, especially from the 60% of our community that is currently unemployed.
- C: *Dave Conway:* That's one of the things we talked about in Round 1, where the workforce would come from, etc. But, because we don't have a project yet the procurement strategies haven't been determined.
- C: *Joan Atkinson:* Many people have been forced to work outside of town.
- C: *Carla Seguin:* We probably have about 40 individuals working in Fort McMurray, and at least that many in Tumbler Ridge. There are other issues at the moment, the district is trying to put together a food program right now for the elementary schools and we're also doing a coat collection program. People's interests and efforts are focused on bare necessity, like how to pay for heat this winter. It's still a very important project, but right now we have more pressing issues.
- Q: *Facilitator:* So do you think if the Project were moving ahead, it would generate a lot more interest in the area?
- A: *Joan Atkinson:* Yes. Certainly for jobs. And the other thing, it's not happening in our backyard. I consider myself a good steward of the environment and I think that most British Columbians do, but like I said, if it's not happening in your backyard, you don't get that concerned with the issues.
- C: *Dave Conway:* Just to talk about the timeline, if we were to go to stage 3, you're looking at a 2-3 year process. If there were a decision to move beyond that, you're talking a year for final engineering procurement, than another 7 years to construct
- Q: *Joan Atkinson:* After every stage does the likelihood that the project is going to go ahead change?
- A: *Dave Conway:* No idea. We provide the information and it is government cabinet that makes the decision to move to the next stage. We are in Stage 2 and that is the only mandate we have. We certainly have input into that, through all the Project Definition work and through the feedback we receive through consultation and we ultimately make a recommendation to

government, but they are the ones who decide whether we move to the next stage. There are a number of different components – consultation input/feedback, project definition work, and updated financial numbers – we’re almost two years from those numbers which is a long way in this world. All of that goes into a report with a recommendation and government makes decision.

- Q: *Joan Atkinson:* What about reception over in Fort St. John, Hudson’s Hope and Taylor areas?
- A: *Facilitator:* Very interested.
- A: *Dave Conway:* It really depends. We’ve had good response with regards to stakeholder engagement, we have an office in Fort St. John and we offer various ways to provide input – fax, email, phone line. When you talk to people you hear strong opposition as well as strong support, and they will qualify that and say “if you do it the right way”. It is value based – it is what they want to see or what they don’t want. It depends on who you are and where you live.
- C: *Facilitator:* During consultations, quite often people who are opposed to something self-select into consultation more readily than someone in favor of something. Therefore, by having alternative ways of providing feedback it gives everyone the opportunity to provide their feedback, particularly if they don’t want to come out and speak their mind next to their neighbour. It’s too divisive in the community.
- C: *Dave Conway:* That’s why you heard Carolyn talk about all of the ways we are trying to get people involved with the consultation. One thing we heard during Pre-Consultation is “we need as many different ways to make us aware of consultation so that we can provide input”. We try and utilize every vehicle we have – print, radio, mail, etc. Bottom line for some people is that they might not be listening to any of that.
- C: *Facilitator:* Debbie is also manning a consultation office in Hudson’s Hope.
- C: *Debbie Bachmeier:* Yep, its open 4 days a week if you happen to be driving through, we’re in the Pearkes Centre.
- C: *Facilitator:* One more opportunity to drop in and participate.
- C: *Dave Conway:* We also try and do community relations outreach through participation at conferences or presentations. We take advantage of as many opportunities as possible.

Page 23 – Stage 2 Baseline studies underway or planned

There were no comments received.

Page 24 – Land Use; Agriculture

There were no comments received.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

There were no comments received.

Page 27 – Information Item – Transmission Lines

There were no comments received.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation

There were no comments received.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

Closing remarks:

- C: *Facilitator:* If the district wants to submit something the deadline is November 30th, but please don't feel constrained – go ahead and submit feedback as individuals as well. Pass it on to anyone who may be interested.
- C: *Dave Conway:* In closing, we are committed to including and considering the input through we receive through consultation along with technical and financial input. Through our discussion this afternoon we have covered everything else I would usually say in my closing remarks. Like to thank you for your time today, we sincerely appreciate it. And just to reiterate what we said to Stephanie, the value you can really add is your knowledge and experience intrinsic to residents of the area.

5. Closure

The small group meeting was closed at 3:30 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

MACKENZIE MULTI-STAKEHOLDER MEETING October 20, 2008

Notes from a stakeholder meeting held with representatives of the Site C Project Team on October 20, 2008 at the Mackenzie Recreation Centre (400 Skeena Drive, Mackenzie, BC).

PRESENT: Carolyn Butt, Kirk & Co. Consulting Ltd., **Facilitator**
Mark Bowler, BC Hydro
Dave Conway, BC Hydro
Debbie Bachmeier, BC Hydro
Wendy Lannin, BC Hydro
Kyle Robertson, BC Hydro
Chris Horwood, Kirk & Co. Consulting Ltd., Recorder

STAKEHOLDERS: John Lambie, Mackenzie Fish & Game Association
Vi Lambie, Mackenzie Nature Observatory
Ron Crosby, College of New Caledonia
Kevin Neary, Peace Williston Advisory Committee/Resident
Henry Dunbar, Mackenzie Task Force
Pat Crook, Resident/Prospective Councilor
Barb Crook, Northern Health
Jon Hatch, Mackenzie Chamber of Commerce

The meeting was called to order at 6:30 p.m.

KEY THEMES:

- Participants were concerned with shoreline erosion, suggesting ways to protect the shoreline, including using non-merchantable trees.
- Participants were interested in reservoir preparation, emphasizing the importance of clearing trees to avoid a similar situation to the Williston Reservoir.
- The Chamber of Commerce expressed support for the Site C project, provided BC Hydro develops innovative approaches to utilize non-merchantable timber.
- Participants suggested that the access roads on the south side be maintained to provide displaced farmers and ranchers access to agricultural lands.

-
1. **Welcome and Introduction of the BC Hydro Project Team and Stakeholders**
Round table self-introductions were undertaken.

2. **The Consultation Program – Facilitator**

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bchydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

There were no comments received.

- C: *Dave Conway:* I'll start by again thanking you for being here and I would like to let you know that no decision has been made yet to build the Site C project. We are in a multi-stage approach regarding Site C as a resource option. We are in a stage focused on project definition which is geotechnical work, socio-economic and wildlife fish studies, and consultation. We began in December 2007 with a pre-consultation to ask what people wanted to be consulted about and how they wanted to be consulted. From what we heard, we determined the topics that people wanted to see in Round 1 of stage 2 consultation which ran from May to June 2008. Round 2 started at the beginning of October 2008 and concludes on November 30, 2008. That's the deadline for providing feedback on various topics or comments that are important. At the end of stage 2 we are expected to provide a report with a recommendation to the government and that should be Fall/Winter 2009. You'll see on this diagram that there is a blue star between stages 2 and 3, 3 and 4, 4 and 5 – it's the government's decision whether we move to stage 3 which is a full regulatory environmental assessment process and you'll see the four bullets on page 2 down to the bottom left hand corner. That's the kind of

information that is common to most of these processes and this gives people a better understanding of what those might look like. It is important to know that this is not BC Hydro's process but the regulator who designs the process. On the right hand side of page 2 we've also included some information on what it might look like with the role of British Columbia Utilities Commission so we have no mandate to go beyond stage 2. The government cabinet determines whether they want that to happen. We certainly have information that we are providing from this process as well as a recommendation which has yet to be determined.

Page 2 – Environmental Assessment and Other Regulatory Processes

- C: *Dave Conway:* So if you flip to page 2, one of the things we heard a lot from the Round 1 consultation was people wanted to know more about the environmental assessment process. So we have included some information here on page 2 on the left hand side. It's important for you to know that this isn't BC Hydro's process – we are a participant in this process we don't determine it – like anyone else, we have a role to play and will certainly respond to the regulators. However, having been through this process on a provincial and federal level with other projects, also observing other projects that aren't ours, we know that there are some common components on the federal and provincial assessment processes. See the 4 bullets on page 2 in the bottom left hand corners to get a better understanding of what the process might look like – but again it's the regulator who designs that process. If the project moved ahead to be developed, we would require out of stage 3 a certificate of public convenience or necessity or CPCN to be able to move to the actual engineering, final procurement and design; the actual building of the project. To get the CPCN you need an environmental assessment from a federal and provincial level.

Page 3 – British Columbia's Energy Needs are Growing; Conservation First...Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

There were no comments received.

- C: *Dave Conway:* BC does have a growing energy need. We are presently looking to meeting that energy need in many different ways. On page 3 you'll see them listed. First and foremost BC Hydro is concerned with energy conservation or demand-side management. Our brand name is Power Smart – on an industrial, commercial, and residential level. To be able to get to where we need, in regards to acquiring energy from energy conservation programs, which is 50% of all new incremental energy growth, will require an extensive push on our behalf, but it will also

require legislative change and building code change. And 50% is just the baseline, we could go beyond 50%. It is the cheapest way, to not have to use it. We are also buying energy from IPPs, since 2003 from competitive calls to power. Mackenzie Green Energy is one of those proponents that responded to the previous call. There is an energy purchase agreement that we have with Mackenzie Green Energy and with many other projects, such as the Edoki wind project in the Chetwynd West Moberly area. The Bear Wind project in Dawson Creek and there are many micro hydro projects spread throughout the province.

We have 3 calls presently out: a bio-energy call, in two parts. That was announced in Feb/Mar 2008. And then there is a call for Independent Power Producers for bio-energy, as part of it. We are expecting the results of that call for Oct/Nov 2008. We also have a clean energy call for 5000 GWh – coming from wind, micro-hydro, or any other clean source. And then we have a standing offer plan for projects under 10 mega watts – bidding in with a set price and set contract, making it easier for small companies to bid on clean projects.

We are reinvesting in our existing properties, like the WAC Bennett dam, and the Peace Canyon dam. We are starting to have more unplanned forced outages because our equipment is breaking down on us. We are working on replacing generators and turbines and the same thing with Peace Canyon dam. At the end we will gain efficiency in regards to more electricity from the facilities and better use of the water.

In addition we are looking at potential resource projects like the Site C dam because it's a viable generating option because of the timelines on a project like this, typically 10-12 years. If you are not doing this type of work upfront, you do not have a viable option; you have to do this type of work. The consultation process takes many years. Any questions about that so far?

Q: *Ron Crosby:* Dave, since the last PWAC meeting a lot of the pulp mills and saw mills have been taken down – how much power has been taken off the grid? Are the demands still going to be there in 2015-2020 with the changes in the pulp and paper mill industries? I think the power industry is going to change as well. Is the demand still going to be there with these changes?

A: *Dave Conway:* We have noticed a drop. I can't tell you the exact number right now, but we go through a planning process called the integrated electricity plan – our forward-looking 20 year document – to try and understand where the load might be going and where things might change. Some might say we are not good at it at times; hopefully we are getting a little more realistic and better at it as we move forward. And from that we

file a long term acquisition plan. But I'll go into that a little more in just a bit.

Q: *Kevin Neary:* With a lot of the pulp mills down, how much power has been taken off the grid, will the demands still be there? The demands will change incredibly.

A: *Dave Conway:* We certainly have noticed a drop in load, but we go through planning process Integrated planning process to try and see how things will change. Hopefully we're getting better at it – from that we form the LTAP, but I'll do into that later.

Q: *Henry Dunbar:* In the refit of WAC and Peace Canyon, are you gaining the kind of efficiencies you have in Revelstoke?

A: *Dave Conway:* I don't know what the Revelstoke gain is, but the gain we are expecting from WAC and Peace Canyon is about 10%. So about a 270 mega watt gain in efficiency when we are done. As we are also replacing and fixing the turbine runners, that's about a 4% gain in the efficiency in the water use as well. Aberfeldie is a substantial gain because we are refitting the equipment down there completely. For us also, it's the reliability of supply.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

Q: *Vi Lambie:* You said the demand has fallen off for power right now, if you build Site C and the demand is not there how is it going to impact Williston? Won't it stay higher longer?

A: *Dave Conway:* My understanding is that it won't impact Williston at all. The reservoir for Site C is not there for storage, its all in Williston. So you end up with a facility that is 1/3rd size of WAC Bennett dam with a reservoir that is 1/20th the size, so environmental impacts are substantially reduced from developing this facility anywhere else because you have the storage.

Q: *Pat Crook:* Well, hopefully the forest industry isn't dead 10 years from now, so hopefully we'll have power demand similar to projected needs.

A: *Dave Conway:* We have projected continued growth in the residential sector. The other thing, because of forced outages and constraints on the system – example on Peace River in Alberta – we have constrains on the Peace River at the time when we need the generation the most. We are generating with half capacity at these facilities. So there is a need for the

capacity, despite the downturn. We have to look at what the potential growth will be 10-12 years out.

- Q: *Vi Lambie*: When we did water use planning for the Peace River they said high water 1 in every 10 years, but it's been every year.
- A: *Dave Conway*: It has and there are other things that add to that, like having generators out of service.
- A: *Kyle Robertson*: When you're operating Bennett you will be operating Site C at the same time; so you'll be making more energy and more profits.
- C: *Pat Crook*: By the time you get to Site C you're utilizing the water 3 times not 2 times.

- Q: *Pat Crook*: Are you going to log the reservoir?
- A: *Dave Conway*: We will address that further on in this discussion.

Q: *Henry Dunbar*: In that valley, the lake level will be stable which will be a help, but there is also incredibly unstable ground in that area. How are you going gain stability to prevent slumping in?

A: *Wendy Lannin*: Historically those banks are unstable, but there are studies going on looking at the banks. Previously we only looked at the safety of the dam, but now we're identifying other safety factors – potential recreation sites, highways, etc. drawing impact lines showing where there will be stable and unstable slopes.

Q: *Henry Dunbar*: Have you looked at stabilizing the slopes? They will be worse under water.

A: *Wendy Lannin*: Not necessarily, it depends on what the mechanism is that causes instability. You have to look at each one individually.

A: *Dave Conway*: We are looking at areas in Hudson's Hope, where one plan in the 1970s, early 1980s was to berm the base of the escarpment where those properties would be at risk.

A: *Kyle Robertson*: Hudson's Hope is definitely being considered based on the past studies. We are looking at impact lines in these studies; one for the flooding, erosion, stability, ground water implications, and one for landslide wave impact.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

There were no comments received.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead

There were no comments received.

Page 8 – Resource Options Comparison

- Q: *Ron Crosby*: You don't consider nuclear?
- A: *Dave Conway*: One of the things outlined in the Provincial Energy Plan was that nuclear was not an option we could consider. It also said that BC Hydro is a purchaser of energy rather than a producer, besides large hydro projects. It also said we need to maintain.
- Q: *Jon Hatch*: BC Hydro exports energy in the summer and imports in the winter?
- A: *Dave Conway*: Actually we export/import real time based on real time. When we are resource challenged is in the winter, opposite with California which is resource challenged in the summer. This resource will help this capacity. Generally we buy high because we need the energy and we don't have the capacity. Overall we have been a net importer from 7 of the last 10 years. That's the self-sufficiency we want to fill. The government by 2016 does not want us importing electricity to fill this need. We would export surplus, but energy is needed.
- Q: *Kevin Neary*: Do the costs take into consideration infrastructure costs?
- A: *Dave Conway*: Yes, and you can compare the other options.
- C: *Kevin Neary*: We know hydro electric is still the cheapest form once it's built and put online. I'm surprised with geothermal – I haven't seen that number before.
- C: *Dave Conway*: There is a good potential for geothermal throughout the province. Anyone can bid a project in. It is an IPP competitive bid process. It is economically feasible for them to do it and our last call was about \$76 a megawatt. We may see an increase in that because costs haven't gone down with labour or materials. But if it's competitive, there is nothing to stop a company from bidding.
- Q: *Kevin Neary*: Where is South Meager and what is it?
- A: *Wendy Lannin*: North of Whistler and it's an independent power producer (IPP).

Page 9 – BC Resource Options Comparison

- Q: *Henry Dunbar*: Is green house gas what kicked coal down into the blue?
- A: *Dave Conway*: Yes. Government said in the 2007 Energy Policy Update, they required 100% sequestering of all emissions with coal. To remain economically viable at this time is not possible to do it. With new projects, the average price goes up more, so it may become viable.

Page 10 – Map of Peace River Country

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Q: *Wendy Lannin:* One of the topics that came up in Round 1 was using the powerhouse access bridge to get to the south bank after the project. On the south side there is quite a bit of infrastructure. What people are asking is will the road be available for public use once construction is finished and how would it be used? We are asking people if they think there would be a community benefit resulting from this usage.

Q: *Ron Crosby:* Who is going to maintain the road?

A: *Wendy Lannin:* Well, BC Hydro may maintain the bridge and access roads, but any other roads I don't know.

A: *Dave Conway:* Unlike Highway 29, which would be directly impacted, what you're talking about here is a third road that would not be necessarily for the project. This would be something for the Ministry of Transportation to decide. That would not be maintained by BC Hydro and any costs for a new highway are not included in this project.

Q: *Henry Dunbar:* What would that do to the drive time if that was a decent road?

A: *Dave Conway:* Communities estimate 45 minutes if it was a good road. Chetwynd and Fort St. John, only if it's a good highway or else you'll restrict Chetwynd's access. Hudson's Hope and Dawson Creek are concerned about being bypassed and the access to the south side. It depends who you talk to and what it is they value and what they would like to see. But the communities estimate about 45 minutes.

Q: *Henry Dunbar:* So if I want to go to Fort St. John, this would be in my best interest if it was a good road?

A: *Dave Conway:* Yes, generally if you're working in one of the communities. But that is one perspective. With the state the road is in, we don't have a feeling one way or another.

Q: *Pat Crook:* If you were going to build a bridge you would think you would leave it there.

A: *Kyle Robertson:* For security purposes it may be only a BC Hydro road to limit access to our facilities. It is not unfeasible to think that it will only be a BC Hydro road.

C: *Pat Crook:* The dam itself you can't access anymore.

A: *Dave Conway:* Well you can, but there are barricades and you have to identify who you are and what you're doing. There was active logging on the other side of the dam and empty trucks can go through, also to access boat launch and tourists to go to the view point, but there is no access across Peace Canyon dam.

- Q: *Henry Dunbar*: What type of bridge would it be?
A: *Kyle Robertson*: A two lane bridge. We would be bringing heavy equipment across so it will be a decent bridge.
- Q: *Pat Crook*: This dam won't affect fish migration back this way on the Williston reservoir?
A: *Dave Conway*: No, not from the Williston reservoir.
C: *Pat Crook*: In the 1970s, and 1980s there was a concern with people actually moving fish. They actually caught a jack fish.
A: *Dave Conway*: WAC Bennett is 650 ft high and there is no fish passage. And Mark will speak more about wildlife access.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results

There were no comments received.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

- Q: *Pat Crook*: Could you use the biomass for ten years to fuel a small generator?
A: *Kyle Robertson*: It's about 1 million cubic meters of merchantable timber and 1 million cubic meters of waste. To transfer this into a bio-fuel we don't know how much fuel would be used. Also, there are different types

of burning – these things would all be analyzed more thoroughly if a move is made to Phase 3.

- Q: *Vi Lambie*: Could some of these trees be used to stabilize the shore.
- A: *Kyle Robertson*: Absolutely, also for habitat creation. This decision will have to be made for each area based on recreation needs, heritage protection, etc.
- Q: *Vi Lambie*: How do you determine how far back erosion will move, because Williston is really moving back quite far.
- A: *Kyle Robertson*: Hopefully studies on impact lines will help with this. It depends on wind direction and materials of the slope. Some areas will erode a lot and some not at all. At this time, distances cannot be determined.
- Q: *Vi Lambie*: Will they take into consideration waves and winds?
- A: *Wendy Lannin*: Yes. We are hoping to install a system to measure wind soon.
- Q: *Vi Lambie*: Are you going to establish habitat because you only expect fluctuations of 3 feet?
- A: *Kyle Robertson*: Yes. The area could be used for excellent wetlands, etc. As we move forward we can work to determine this so I hope those values come across in stakeholder engagement. But yes, it provides good opportunities in habitat creation.
- A: *Mark Bowler*: We are looking actively at opportunities to promote habitat on the North bank and the area that is presently Watsons Slough. We know very well that we want to be compensating habitat where can. We are looking at every place we can find, and we want to compensate the habitat.
- C: *Vi Lambie*: Because of the high waters in the marsh we get some species who can tolerate it and others that can't.
- C: *Dave Conway*: We need to remember that the swing on Williston is 30-40 feet a year. The swing on Site C is much smaller.
- C: *Vi Lambie*: This is why I think it will be a lot easier with Site C.
- C: *Kyle Robertson*: Absolutely, and your input on this will be very valuable based on that experience that you have with respect to reservoir preparation.
- Q: *Pat Crook*: The displaced ranchers and farmers, will they have access to the land on the South side?
- A: *Kyle Robertson*: It's primarily Crown forested land.
- C: *Mark Bowler*: Depends on the land on the south side along the river.

- C: *Pat Crook*: You may want to keep some of these roads available for them to access these lands because I didn't see that as one of the options here.
- C: *Dave Conway*: That's an excellent point. Please include that in your feedback. Certainly from the perspective of the agricultural land reserve, there are lands that are already in production and some with potential production, although they are not clear.
- C: *Mark Bowler*: So the area where we talked about the access bridge, there are certain areas that have great potential for farm land.
- C: *Pat Crook*: I think the farmers and the ranchers should have access to the road/bridge to help compensate for that.
- Q: *Kevin Neary*: How many cubic meters of merchantable timber will there be?
- A: *Kyle Robertson*: 1.9 million I think.
- A: *Mark Bowler*: I believe it is more like 1.5 roughly.
- C: *Dave Conway*: We are working with 25-30 years old studies. We will get back to you on that.
- Q: *Jon Hatch*: I know what you mean about trucking it to the side, but couldn't you train the stuff to Mackenzie along those kinds of lines?
- A: *Kyle Robertson*: The rail is quite a ways back from the reservoir area. When you look at the map on Page 14, you'll see a light brown area which indicates the slopes going into the reservoir, so that is where the clearing is coming from. With the exception of Moberly, which is relatively close to the highway, truck, helicopter and potentially boat are primary access points.
- C: *Pat Crook*: You could tow it on the lake but it's probably more financially feasible to use Fort St. John or Chetwynd lines.
- C: *Kyle Robertson*: It will be a 7 year construction period but the clearing won't take 7 years. However, in order to achieve all these trade-offs, we might want to take the 7 year period to do it. But we would do different things at different times to enable a more strategic approach to clearing the area.

Page 18 – Reservoir Preparation Considerations Table

- Q: *Vi Lambie*: Did you consider the top soil that will be lost as well?
- A: *Mark Bowler*: That is being considered. We are looking at the possibility of moving it – we need to figure out what the value is that we need to maintain. It is a matter of figuring out what is feasible.
- Q: *Ron Crosby*: How many residents will need to be relocated?
- A: *Kyle Robertson*: Not sure exactly, because we don't have all the impact lines defined.
- A: *Dave Conway*: Information from the 80s put it at about a dozen, but when you consider those impacted due to road realignment, sloughing, etc. the

number at around 40 that we think will be impacted in some way. There are a lot of studies regarding that going on right now.

Page 19 – Impact on Resources; Looking Ahead

There were no comments received.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

- Q: *Pat Crook*: Why would you want to build a reservoir and fill it with garbage?
- A: *Wendy Lannin*: It's not easy to access the reservoir to get the materials. The Moberly reservoir is on the south side so that becomes a hazard. Where the powerhouse and structures are going to be we will get a lot of material from there already. The materials have to have the right grading, etc. we use the gravels especially for concrete aggregate.
- A: *Dave Conway*: The reservoir is not there for water storage it's there for head on the generator. I know it seems counterproductive.
- C: *Wendy Lannin*: There are still lots of volume left in the reservoir.
- Q: *John Lambie*: How far away is the gravel that will be flooded?
- A: *Wendy Lannin*: The entire river bed is gravel.
- Q: *John Lambie*: You said gravel pits. Is that what you meant would no longer be accessible?
- A: *Mark Bowler*: Some of these pits would become inaccessible, we are and they are too far away to use for construction.
- A: *Wendy Lannin*: Some of it will be. The gravel close to the dam will be used.
- C: *Kyle Robertson*: The Moberly is a big contributor of gravel where as at the Half Way it is a bit finer.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

There were no comments received.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies

- Q: *Vi Lambie*: Are those surveys and inventories being done just near along river or throughout habitats? Would be nice to know what is happening in the area that is going to be flooded.
- A: *Mark Bowler*: Depends on the animal. There are mobile species which have a big range, where as others, like the beaver do not. It's not just on the river, or the flooded river, but the area affected by the transmission right of way, the area near the dam and areas around that. It is quite a vast

amount of area actually. In the area around where the dam construction would be. There would be a significant amount of real field work to get in some ecosystem mapping. In recent months there has been more stable water levels so the shore grasses, etc. have not been what you would expect so it takes interpretation to gage ecosystems. But little things like that combine to give us the big picture. We are working with the idea of managing for those species which are more weak and sensitive.

- A: *Kyle Robertson*: The fish studies will go to the BC/Alberta border and terrestrial as far as 2 km outside of the reservoir.
- Q: *Pat Crook*: Do you project mercury contamination?
- A: *Kyle Robertson*: We haven't done organic soil or reservoir samples yet, but that is typical in some reservoirs. One reason we would consider clearing the reservoir is because it's the organic materials that breaks down and release mercury. So in clearing that material early on that is one way that we could fight against that.
- Q: *Pat Crook*: That would be part of stage 3?
- A: *Kyle Robertson*: Yes. That would be part of stage 3 and we will have to define that further for what areas we will be removing timber and if this would be an issue.
- Q: *Vi Lambie*: Are there any areas known to create mercury naturally?
- A: *Kyle Robertson*: Generally water in the Peace River has high metal content, not speaking specifically of mercury. Slowing down water speed means more suspended sediments can settle. These studies will also be done. We are going to model that process to try and estimate whether those metals will settle.
- A: *Dave Conway*: My understanding is that with the Williston reservoir the Arceno Pyrite actually leeches mercury and elevated the mercury levels.
- C: *Barb Crook*: Ladies do fishing off the causeway and we're told not to eat the fish and to throw the fish back.
- A: *Dave Conway*: The Northern Health unit has issued warnings regarding fish consumption, especially with bull trout. A new study is needed and we are getting that information updated. Over time levels drop. We've been asked to do studies by First Nations and local communities, because normal consumption is 1 fish. It naturally bio-accumulates.
- A: *Mark Bowler*: The general theory is that bigger fish eat smaller fish and the older the fish the more accumulated metals they would have – updated studies are needed but it's really the same water.
- C: *Dave Conway*: My understanding is that it is only in bull trout.

Page 23 – Stage 2 Baseline studies underway or planned

There were no comments received.

Page 24 – Land Use; Agriculture

- Q: *Vi Lambie*: How come there is class 1 agricultural land up there?

A: *Mark Bowler*: My understanding is that in the reservoir area there will be one or two hundred of the 2,800 hectares of agricultural land that will be covered. It is a small part of a much bigger amount of class 1 land.

Q: *John Lambie*: If there is only 200 hectares of class 1 is there a potential to move it for green house usage?

A: *Mark Bowler*: It's a combination of soil, quality, number of growing days when the frost comes off, light levels, hours per day etc. – it's not just the soil, but the whole mixture of things. The level of the water and being close to the river helps frost leave the soil earlier – there is a potential to change the class of some of the surrounding lands to create more class 1. So there could be more of that, we just don't know.

Q: *Vi Lambie*: What are the soil types around there?

A: *Mark Bowler*: Soil has been tested and it has been re-done since the 1960's and there are about a dozen different types on the reservoir. One of the questions in front of us is should we reclassify these lands so we have the most current information possible and so we know exactly what is there, or is the 1960's information enough? We would learn this in studies.

C: *Vi Lambie*: It would be good to know where your good pockets are.

A: *Mark Bowler*: The potential to move the soil is still being considered given the cost benefit and that sort of thing. It is being looked at quite seriously.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

There were no comments received.

Page 27 – Information Item – Transmission Lines

Q: *Vi Lambie*: Would the timber that is cleared be utilized?

A: *Kyle Robertson*: Yes. Any merchantable timber would be utilized. This will be part of the reservoir preparation.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation

Q: *John Lambie*: If the whole dam only varies 3 feet up and down, can you protect the shoreline from erosion?

A: *Dave Conway*: Plus or minus 3 feet – so six feet of variation.

A: *Wendy Lannin*: It depends. It's 283 km of shoreline and it is just not feasible to protect everywhere.

- Q: *John Lambie*: So key areas which are steeper, could they be protected?
- A: *Wendy Lannin*: Some of the shoreline is rock and wouldn't erode at all, but some areas may likely erode. We will look at each area to see what we can do where and what is feasible where. Access is difficult, anchoring is difficult, etc. Wood waste might be the answer.
- A: *John Lambie*: Yes, wood waste.
- C: *Kyle Robertson*: We will have to assess each area individually. It is hard to assess.
- C: *John Lambie*: Williston erosion this year is a lot more than usual compared to the average year. There is a lot more sloughing.
- Q: *Kevin Neary*: Any idea on projected power prices potentially with this dam built?
- A: *Dave Conway*: No idea. Don't even want to speculate, the timeline is too far out there. I came in during the energy crunch and so much can happen and trying to determine the load is part of the challenge with the integrated energy planning process. What is the potential impact with electric cars, for example. It's difficult.
- Q: *Kevin Neary*: With the BCUC, do they set it in blocks of 5 or 10 years of when the can approve an increase?
- A: *Dave Conway*: Nope, depending on what the need is as we add new resources. There are longer periods where we haven't had increases in the last 5-6 years. We have approval to do a residential inclining block which is a base level at one rate, and anything over that will be charged a higher rate. We have a smart metering initiative in the company to try and shift load from the peak period from 5-10pm to off-peak. You put off the need for building stuff by doing that. As we add new energy, regardless of where it's coming from it's more expensive than the stuff we built 30-40 years ago.
- C: *Jon Hatch*: Thank you for this session, it's very informative. I know that from feedback from our members of the Chamber of Commerce we would support this, provided you are creative with trees in the area.
- C: *Ron Crosby*: It makes me sad to think that you won't be able to canoe the river the same.

4. **Feedback Forms**

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

Closing remarks:

- C: *Dave Conway*: Thank you for coming out and taking time to provide your concerns and offer your comments. It was a broad mix which is nice to see. Our intent isn't to get your position statements. We are looking for input and feedback regardless of what it is. This gives us a much better ability to provide a report to government to be considered along with

financial and technical input. Our commitment is to make sure that the feedback and input you gave is considered in the final decision making process. We would really encourage individuals to provide input outside of their organizations. Again, no decision has been made to move to stage 3. This decision will be made by the Provincial Government. We look forward to receiving your input before November 30, 2008.

5. Closure

The small group meeting was closed at 8:30 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

PRINCE GEORGE LOCAL GOVERNMENT MEETING

October 21, 2008

Notes from a stakeholder meeting held with representatives of the Site C Project Team on October 21, 2008 at the Ramada Hotel Prince George (444 George Street, Vancouver, BC)

PRESENT: Carolyn Butt, Kirk & Co. Consulting Ltd., **Facilitator**
Mark Bowler, BC Hydro
Dave Conway, BC Hydro
Debbie Bachmeier, BC Hydro
Wendy Lannin, BC Hydro
Chris Horwood, Kirk & Co. Consulting Ltd., Recorder

STAKEHOLDERS: Colin Kinsley, Mayor
Don Zurowsky, Councilor

The meeting was called to order at 10:00 a.m.

KEY THEMES:

- Participants expressed support for Site C.
- Participants were interested in the environmental aspects of the project, commenting specifically on whether there was an opportunity to pre-dredge the gravel prior to flooding and the use of affected agricultural land.
- While participants were interested in the project's potential for sustainable job creation, they expressed concern regarding how to manage the influx of workers during the peak periods of construction.
- Participants suggested that the access roads between Fort St. John and Chetwynd may be an unnecessary expense, unless they are required for resource purposes.

-
- 1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders**
Round table self-introductions were undertaken.

2. **The Consultation Program – Facilitator**

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

C: *Colin Kinsley:* Welcome to Prince George. Everything that happens in the North is associated with Prince George. We are the service center, education, healthcare, judiciary, finance, retail, entertainment, and transportation. Prince George will probably be in a decade or two the transportation hub between the Pacific Rim and North America because of the rail connection, the airport connection and the abundance of natural resources. We are right in the middle of the largest wood fiber production, precious metal extraction, and we have clean hydro. We have abundant land. We have the education and the people. It is just a matter of time with this transportation link to the Port in Prince Rupert and our international airport which is the third largest in the nation and the logistics planned going forward with that. Manufacturing will play a huge role in this region and that is going to require lots of inexpensive power.

C: *Colin Kinsley:* I'm particularly interested in Mark's comments on the environmental impacts. I think that is great that we can use the existing water resource in Williston to produce 900 MW of power; that is impressive. I am interested in what the other environmental impacts might be because that is where the push back is going to come from not just in the Peace River but in downtown Vancouver a lot of people in downtown Vancouver have no idea where their lights come from or heat.

Page 1 – Site C Background – Dave Conway

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes

- C: *Colin Kinsley*: I used to sit on the BCUC and you're going to have more public consultation there.
- C: *Dave Conway*: You're right. This is baseline work. This is the beginning of consultation. It doesn't end here. It continues out in all processes.

Page 3 – British Columbia's Energy Needs are Growing; Conservation First...Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

- Q: *Don Zurowsky*: At an UBCM convention, Gordon Campbell commented on the "concept meter" to monitor in-house usage, is that in the future?
- A: *Dave Conway*: That is the Smart Metering Technology. The plan for this technology is 5 years. We looked at a number of utilities throughout the world. Italy was able to do this in a 5 year time frame. The technology is still developing. The locations we've looked at provincially where we have an example are Fort St. John, Campbell River and the Lower Mainland. The ability for people to see what they're using when they turn on the dishwasher, switch the dryer on, its that signal to them, as well as the price. It's a combination of the two.
- C: *Colin Zurowsky*: One of the beauties of electricity even without the education or the marked meter is that you can see it. You turn the lights off and you turn the TV off, you turn the computer off. In the north it is an easy way to conserve but we struggle with heat. I remember when Mark Jaccard was chair of the Commission; he instituted a 30% surcharge from November 1 thru to April on natural gas. I constituted here that we make widgets that had to be glued at 70 degree ambient temperature for 24 hours. That better would be a disadvantage in Abbotsford where there are 200 degree days and here there are 400 degree days. There is a balance that we need to fit and one size doesn't fit all. It's always a struggle; regional recognition, even with the carbon tax, lots of push back in rural BC.
- C: *Dave Conway*: We're seeing push back with incremental too. North actually is second lowest in consumption use of electricity in the province. We are certainly seeing high consumption on Vancouver Island because of electric heat; gas was relatively new to them.
- C: *Colin Kinsley*: My hydro bill is really little. Everything is on natural gas at my house. Only thing electric are the lights and dishwasher.
- Q: *Don Zurowsky*: Some say if you were serious about buying green energy you would do something like Ontario has done with rate differences. Have you looked at that?
- A: *Dave Conway*: Not sure where that will go. We have spoken to the potential IPPs and the Forestry Industry related to biomass. It is evident that it can't be competitive in terms of costs. To make it pay and to be able

to use the fiber, it would have to be higher than what we are presently getting for other projects. There is also a supply issue. We looked at that and we haven't gone to the extent Ontario went to with price. We are looking at the standing offer call that is a set price with a set contract for small projects under 10 MW. I know that the city has looked at some different things related to that.

C: Colin Zurowsky: We have been following community energy systems for many years. I have toured all of Denmark, parts of Sweden and Finland looking at combined heat power plants using various things. The Dutch use forest waste and also garbage. In Denmark, for example, they don't have a provincial government, they have local and federal government and landfills are outlawed. Either they recycle it or burn everything. The communities fight over who is going to get the energy plant. They pick up thermal energy in a closed hot water system and the city of 15,000 people will have this advantage of clean hot water heat coming from the plant. They've been doing it in Burnaby for 20 years. Biomass is the way to go. We're not big enough to do it up there. Burning of garbage was debated at one time. Combining a few communities, we're just not close enough together to do it.

C: Dave Conway: When you start burning, you need a lot.

C: Colin Kinsley: We don't want to burn fuel driving stuff to the plant.

C: Dave Conway: Wendy will talk a little a bit about that when we talk about the reservoir.

Q: Colin Kinsley: The government isn't talking about subsidizing any of these green producers, are they?

A: Dave Conway: No.

C: Colin Kinsley: That is the difference between the Nordic Countries. It is subsidized.

C: Dave Conway: Not that I have heard. I don't know what is happening related to biomass but the indication is that there is no potential. Producers were saying that the price required to make it feasible is certainly well above what we are presently paying. It was 76 dollars per MWh in our last call.

Q: Colin Kinsley: What do we pay now?

A: Dave Conway: Individually? About 6.9 cents per KW per hour so about 69 dollars per MWh. It is still cheaper.

Q: Colin Kinsley: Has anyone had the courage to talk about nano completion?

A: Dave Conway: It gets raised. We heard about it during pre-consultation and Round 1 as a suggestion. The difference is, if developed it would be the IPP Alcan bringing it to us and it would not be Hydro doing it.

C: Colin Kinsley: When I talked to the Premier about it, he is adamantly opposed. Alcan could never bring it back but maybe BC Hydro could. It is thought that Alcan made the mistake. We would have had the cold water release and it would have been protected and we would have

watered that area. If the First Nations issues would have been resolved, it would have saved the tax payer half a billion dollars and we would have had the power. Politics gets in the way of doing it.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

- Q* *Colin Kinsley*: Where are you getting the drop?
A *Wendy Lannin*: Basically the 52 m of head you are creating at the dam site is rock and that is where we are getting our power source.
Q *Colin Kinsley*: So, in that particular site there is no natural drop? It is just the most appropriate place to build the dam?
A *Wendy Lannin*: Yes, that is correct.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

- C*: *Dave Conway*: If this was built, we are asking people could there be a legacy benefit to recognize local regional impacts.
Q: *Don Zurowsky*: Like the Columbia Basin Trust Initiative?
A: *Dave Conway*: Yes, it could be like the Northern Development Initiative. People have listed low rates and infrastructure. We are looking to qualify exactly what they mean.
- Q*: *Don Zurowsky*: How do you qualify the number?
A: *Dave Conway*: We haven't. It hasn't come to that level. It is more conceptual about what it could be. There is no mechanism on how that would operate and how you attach a number to it.
- C*: *Don Zurowsky*: One thing for consideration is the connectivity of that area to the Pine Pass; a major upgrade.
- C*: *Colin Kinsley*: One thing you have to consider is that you can't take oil field equipment over the highway because the bridge is over the rail line. We have brought this to Kevin Falcon's attention. If we want to have that connectivity between Prince George as a service center to the gas industry; we have to do something about those impediments.
- C*: *Dave Conway*: There is 12 km stretch that is narrow and winding.
C: *Don Zurowsky*: That is really limiting. It appeals to us and it appeals to our Northern Neighbors.
C: *Dave Conway*: We encourage you to put that in your feedback or make a submission as a council.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead

There were no comments received.

Page 8 – Resource Options Comparison

- C: *Dave Conway:* As part of the Energy Plan, if you are going to use coal, it has to be 100% sequestered.
- C: *Colin Kinsley:* Again, coal is used in Scandinavia very efficiently.
- Q: *Don Zurowsky:* How do you sequester coal?
- A: *Dave Conway:* You take the gas emissions and put it back underground into a vacant cavity; that is my understanding. You then don't have the emissions in the air shed.

Page 9 – BC Resource Options Comparison

- Q: *Colin Kinsley:* Why does biomass not have to be sequestered and coal does?
- A: *Mark Bowler:* It's the way biomass is counted. Biomass comes from crops and trees and when it is burned it goes back into the crops and trees on the land. So it is netted out at zero. Coal comes out of the ground and it doesn't go back into the ground. That is the theory.
- C: *Colin Kinsley:* That is good to know. I was thinking more in terms of matter in the atmosphere. The critics say that both are unacceptable.
- C: *Mark Bowler:* The difference is when you take a tree down, it will become a tree again. It is just how it is measured.
- C: *Don Zurowsky:* It is a very debatable argument; the way that it is measured.
- C: *Mark Bowler:* There is lots of debate about it.
- Q: *Colin Kinsley:* We don't debate that using wood is good. It is mother nature's natural renewable resource for construction. If you sequester the carbon that is used in furniture and houses rather than let it rot in the forests. What is the number when you allow forests to naturally rot or garbage to sit in a landfill? It is 7 to 9 times than normal?
- A: *Mark Bowler:* The production from a landfill of methane is 300 and 10 times more potent as a green house gas than carbon dioxide because it stays in the atmosphere 10 times longer.

Page 10 – Map of Peace River Country

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

- C: *Don Zurowsky*: Unless BC Hydro, the provincial highway network, or the Ministry of Forestry maintain it in the long haul. We don't need any more roads to maintain with low critical mass.
- C: *Wendy Lannin*: That's exactly the type of feedback we're looking for. BC Hydro would prefer not to have anyone near the facilities for security proposes unless it is strongly felt that this would be a community benefit. We're seeking feedback on whether access is feasible or wanted.
- C: *Don Zurowsky*: We would rather spend money on technical improvements to the Pine Pass.
- C: *Wendy Lannin*: Please add that comment to your feedback form.
- C: *Dave Conway*: We spoke to Fort St. John and they said that you can stand on the bank and look across the river and that you could be there in 10 minutes; however it takes them 2 hours to get there now. Chetwynd sees the same sort of benefits. Unless you have highway grade road, everything will go to Fort St. John. They can't compete with the distance. There are a lot of balances between the communities and how people feel. It depends on where they are coming from.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results

There were no comments received.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

- C: Colin Kinsley:* We could have a community energy system in the work camp right there on site as you go forward. You got your energy supply in 7 years.
- C: Wendy Lannin:* Except that the work camp is a long way from the reservoir so you have to look at all the different balances.

Page 18 – Reservoir Preparation Considerations Table

- Q: Don Zurowsky:* Is there opportunity to do a pre-dredge?
- A: Wendy Lannin:* There is. There would be an opportunity but then where would you put it? Where is it going to be used? Everything has an impact. There are trade offs for everything.
- C: Don Zurowsky:* And dredging is commonly more costly to the market than the market value of the gravel in this area.
- C: Wendy Lannin:* Yes, in this area. We recognize it as a resource. We want to make the best decisions and have the best information forward.
- Q: Don Zurowsky:* Are you talking from a time period point of view, if this decision was to move ahead that it would be begin 7 years from now?
- A: Dave Conway:* No. The time frame on this regulatory process is 2-3 years, procurement and engineering stage is another year and then construction is 7 years. You are looking at 11 years not counting decision making time as well. So you're not looking on having any energy production if the project were to move ahead until 2019/2020. We are doing this pre-work to have a viable option.
- Q: Don Zurowsky:* At what point do you start getting serious about geo-technical and at what point of time would you start construction?
- A: Wendy Lannin:* We are doing geo-technical investigations right now to fill in the gaps in parallel with this process.
- C: Dave Conway:* It is probably 5-6 years before looking at construction period. There are big assumptions in that.
- Q: Colin Kinsley:* Do you have separate but parallel discussions with First Nations?
- A: Dave Conway:* Yes, it is a separate but parallel process that Jack Weisgerber is leading. It is presently in protocol agreement discussions. So primarily the work we are doing right now is related to Treaty 8 and the 6 First Nations that are more directly impacted. We are working with Macleod Lake separately. Blueberry has basically separated from the main group to do their own thing and we are working with the other chiefs in council. We have identified 28 First Nations within the region from Macleod Lake to the Arctic and Mackenzie.
- Q: Colin Kinsley:* Are most of them part of Treaty 8?

- A: *Dave Conway*: A lot of them are. A substantial portion of Treaty 8 is in Alberta.
- C: *Wendy Lannin*: I can see that people would want access for recreational access; particularly on the right bank
- C: *Colin Kinsley*: I can see people wanting access for recreation purposes.

Page 19 – Impact on Resources; Looking Ahead

There were no comments received.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

- C: *Colin Kinsley*: There is lots of riprap available if you straighten out Pine Pass.
- C: *Mark Bowler*: We are suggesting that the riprap come from Pine Pass.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

- C: *Colin Kinsley*: It's interesting for a layperson that when I look at what has to be relocated and yet none of it can be used in the dam construction.
- C: *Don Zurowsky*: 47 million cubic meters is a lot of ground. In terms of dredging we have are about ¼ million cubic meters.
- C: *Wendy Lannin*: A lot of material has to be moved hence the 7 year construction period.
- Q: *Don Zurowsky*: Is this reclaiming much irritable land for agricultural purposes?
- A: *Mark Bowler*: We've begun discussions with the Agricultural Land Commission about that and that land is all part of the agricultural reserve, but it's not actually being farmed at the moment.
- C: *Don Zurowsky*: None of it is?
- A: *Mark Bowler*: Not right at the dam site. On the North Bank, there is the re-stabilization project because there is a ranch there, but because it is on the Agricultural Land Reserve and it has the capability of being good land. So from a permanent project view, if it's capable and it could be used in future we'd be trying to turn a lot back into agriculturally suitable land with those habitat restraints and safety constraints.
- Q: *Don Zurowsky*: Do you have ratings for how irritable the soil is?
- A: *Mark Bowler*: We have the soil type classifications and the capability ratings. It is largely from 1 to 3. In those areas, there are not many flat spots.
- Q: *Colin Kinsley*: So it is grazing land?
- A: *Mark Bowler*: Yes, but since we are moving materials we can make it any shape we want.

- Q:* Don Zurowsky: Is 1 the best?
A: Colin Kinsley: Yes. The numbers are 1-7; 1 is best and 7 is the worse.

**Page 22 – Environment – Preliminary and Baseline Resource Studies;
Wildlife Studies**

- C:* Dave Conway: Approximately 5300 hectares would be flooded out and 2800 hectares of that is productive agriculture land (class 1 to 3 soils), 100 to 200 hectares of that is class 1 soils.
- Q:* Don Zurowsky: Class 1?
A: Dave Conway: Apparently the farthest North reach of class 1 soils.
- Q:* Colin Kinsley: Is it because of contours that it is used primary as grazing?
A: Dave Conway: No, the land is used for vegetation, potatoes and vegetables. The lands haven't been worked in about 5 years. This is BC Hydro owned land which was bought from a farmer and then leased back to them. They have been using them for grazing of horses for the last couple of years.
- C:* Don Zurowsky: I've heard that in the Peace River region it will affect the water in Peace River in Alberta and in BC. I heard that MP Jay Hill was in opposition of this project.
- C:* Dave Conway: Jay Hill hasn't said anything recently.
- C:* Don Zurowsky: I'm sure that he has been informed or educated.
- Q:* Don Zurowsky: The employment population forecasts and the sustainable impacts on the Fort St. John region – what is the sustainable job view?
A: Mark Bowler: In some respects we've been lucky, oil and gas have put a lot of pressure on Fort St. John for growth. We are working with the City of Fort St. John. We are trying to determine if we had another increment on top of what is going on now, what would be necessary? What are we running out of with respect to resources or infrastructure? Their landfill has almost topped out and there is a water resource problem. There are a number of things to consider because of growth, and there is also training and labor. We are working with the city on this. We are just beginning to access these things now.
- C:* Dave Conway: At peak the project is projected to have 2500 workers. The initial plan has two work camps on the north and south bank. We have heard a lot from the city. They'd like as much incorporation as possible as opposed to a work camp model.
- Q:* Colin Kinsley: It's a strange approach for a city that has zero occupancy rate and high housing prices. Where is the city on this?
A: Dave Conway: They haven't taken a position. They want to be involved on an ongoing basis and they want as much planning time as possible particularly when you have a workforce like that. Ultimately if the project goes ahead, you are only looking at 50 workers working full-time once the project is built, it is not a high number.

- C: *Mark Bowler*: It is actually that transition that is on top of mind with the city. What about the services, and infrastructure when construction finishes? What does happen? The camp is a top priority and so is the phase of scaling down, because they want to plan for the boom/bust cycle.
- C: *Colin Kinsley*: There are other community costs such as policing and other issues.

Page 23 – Stage 2 Baseline studies underway or planned

There were no comments received.

Page 24 – Land Use; Agriculture

There were no comments received.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

There were no comments received.

Page 27 – Information Item – Transmission Lines

There were no comments received.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation

There were no comments received.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

Closing remarks:

- C: *Colin Kinsley*: We may need to present this to council to gain perspective. There are only 2 of us here out of 9.
- C: *Dave Conway*: Looking at that and looking forward, one of the other things of course is, from a community relations perspective, presentations and outreach and different forums. We are more than happy to come to council after the election once council has been established again.
- C: *Don Zurowsky*: The challenge is that this is after the input deadline for this phase.
- C: *Dave Conway*: Unfortunately, yes.

- C: *Don Zurowsky*: I think it would be productive to get a copy of this to all the councilor's slots. It would be worth a phone call to each member.
- Q: *Don Zurowsky*: Have you met with IPG?
- A: *Dave Conway*: Yes. They have been invited to tonight's meeting as well.
- C: *Don Zurowsky*: We appreciate you taking the time for us.
- C: *Dave Conway*: The deadline for feedback is November 30th. If council wants to make a submission, it can be in any format. It does not have to be a feedback form. It can be personal feedback as well. BC Hydro is committed to including that feedback as part of the Stage 2 report that will go to government as well as the financial and the technical information.

5. Closure

The small group meeting was closed at 11:20 a.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

PRINCE GEORGE MULTI-STAKEHOLDER MEETING

October 21, 2008

Notes from a stakeholder meeting held with representatives of the Site C Project Team on October 21, 2008 at the Ramada Hotel Prince George (444 George Street, Prince George, BC).

PRESENT: Carolyn Butt, Kirk & Co. Consulting Ltd., **Facilitator**
Mark Bowler, BC Hydro
Dave Conway, BC Hydro
Debbie Bachmeier, BC Hydro
Wendy Lannin, BC Hydro
Randy Reimann, BC Hydro
Chris Horwood, Kirk & Co. Consulting Ltd., Recorder

STAKEHOLDERS:

Norman Arnott, Resident
Pat Card Hurst, Telus Engineering
Ed Chanter, McElhanney Consulting Service Ltd.
Floyd Crowley, Resident
Mike Fawcett, Brock White Construction Materials
Wil Fundal, CBC
Rick Hannah, River & Jet Boat Safaris
Steve Helle, UNBC
David Holm, Resident
Richard Labonne, Local 1611 Laborers
Heather Larson, UNBC Student
Reg Longmore, Houle Electric
Jim Loose, Resident
Ken Maddox, McElhanney Consulting Services Ltd.
Vic Mazur, River & Jet Boat Safaris
Ben Meisner, Opinion 250
Elaine Meisner, Opinion 250
Chris Mikulasik, Resident
Jack Milburn, Resident
Keith Parsonage, Houle Electric
Todd Patterson, IDL Projects Inc.
Gordon Pierre, Tsay Keh Dene
Dave Read, Resident
Laurie Rujtad, Resident

Terry Teegee, Takla Lake First Nations
Rosalind Thorn, NBCCA
Dick Voneugen, Resident
Derek Walters, Resident
Allan Wishart, Prince George Free Press

The meeting was called to order at 3:30 p.m.

KEY THEMES:

- Participants were concerned with potential environmental impacts such as climate change (fog), mercury contamination and sloughing.
- Support was expressed for Site C, citing financial and employment benefits, recreational opportunities and the availability of cheaper, reliable power for the province.
- Participants wanted to know why Site C is being considered over other options, requesting additional information about energy alternatives.
- Participants expressed concern regarding employment opportunities for the construction of Site C.

1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders

Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

C: *Carolyn Butt:* I just want to tell you about getting ready for this consultation and the opportunities for people to participate. There were 23,000 household mailers mailed out to households in the Peace area telling residents about the consultation and the opportunities to participate. There were stakeholder and open house print ads run 41 times in 11 different newspapers most of them in the Peace area and also in the Vancouver Sun. There have been radio ads, 15 to 30 seconds since September 22nd and they run right through to almost the end of the consultation telling people about the open houses and how to participate. We have worked with stakeholder lists and sent out at least 1700 emails. I am sure that most of you have received some of these emails more than once and have also received phone calls and follow-up phone calls as we are trying to ensure that everyone has an opportunity to participate. If you look inside your discussion guide in the front cover, it tells you all the different ways that you can submit the feedback. There is a feedback form in the back of this discussion guide and you have until November 30th to submit that. You can go online to the web address that is in here. You can fill out your feedback form interactively. You can call the 1-800-number and leave your comments there. You can submit written submission by fax or you can phone in. We thank you for coming.

Page 1 – Site C Background – Dave Conway

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First...Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

Q *Floyd Crowley:* Where are you getting the new generators?

A *Dave Conway:* They are being rebuilt on site.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

- Q *Gordon Pierre:* Are they going to do long term research on down stream impacts?
- A *Mark Bowler:* That is being done continually. The idea with this project on the water side is changing the release point further down would change the water temperature slightly. There is modeling underway to look at ice formation for instance. One of the things we want to emphasize is that the reservoir would not be used for storage. Any water would go right through the system. So from the general amount of water it wouldn't be any different going down the river.
- Q *Mike Fawcett:* So there is no downstream volume production?
- A *Mark Bower:* No, there is no downstream volume production.
- Q *Derek Walters:* You mentioned generators, is that where you'll get efficiency or are you changing the turbines themselves?
- A *Dave Conway:* At the W.A.C. Bennett Dam is a combination of both. We are changing the turbines and the generators. We will also get about a 4% gain out of the water efficiency by changing the turbines out.
- Q *Chris Mikulasik:* What kind of workers are you talking about? Will we be bringing in foreign workers?
- A *Dave Conway:* We are not at the procurement stage yet. No plan has been made as to where the workers would come from or who they might be.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

There were no comments received.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead

There were no comments received.

Page 8 – Resource Options Comparison

There were no comments received.

Page 9 – BC Resource Options Comparison

- Q *Dick Voneugen:* How would you have derived the conservation figure?
- A *Randy Reimann:* BC Hydro commissioned the Conservation Potential Review. It is a study that we did to look at all economic sources. We looked at where there is potential to save energy and if there is more efficient technology to do it. We then assess the economics of it and assess the economic achievable potential. That was done with a consultation group with about 30 people from different areas and different backgrounds around the province.

- C *Dick Voneugen*: Under large Hydro Site C, you show here 4,600 gigawatts. I thought earlier figures said 900 megawatts.
- C *Randy Reimann*: There is a difference between the capacity and the energy. The capacity, the 900 megawatts, is at peak hours of the day sometime in the winter. It is a rate of producing power so that is 900 megawatts. The 4,600 gigawatts is how much on average over the year.
- Q *Ken Maddox*: Where are those energy costs measured?
- A *Randy Reimann*: You see the adjusted UEC range, not everything is captured perfectly but essentially delivered to the Lower Mainland which is what we are trying to understand.
- Q *Floyd Crowley*: How could you come up with a planned use time for Site C that is 70 years when wind is 20 years? How it is that wind is less than the dam?
- Q *Randy Reimann*: What happens is that the wind equipment is run until it needs to be replaced or rebuilt in about 20 years.
- Q *Floyd Crowley*: So the existing generators will last 70 years before you have to replace the parts?
- A *Randy Reimann*: There are more movable pieces on the wind turbine. The Peace Dam lasts about 30 to 40 years.
- C *Floyd Crowley*: But it says 70 years.
- C *Randy Reimann*: The difference is that the dam which is the most of the cost lasts for 70 years and the wind farm is all mechanical components. So once those wear out, you have to replace the whole thing. Therefore it is 100 per cent of the costs that you replace.
- C *Dave Conway*: To be clear, that is from a planning perspective. If you build a dam like this and you maintain it, it is in for good, it is not in for 70 years. The dam is in indefinitely as long as you maintain it.
- C *Dave Reid*: When Site C was first proposed, one thing was the emergence of natural gas generation which was much cheaper at that time. In this graph it shows the natural gas price range much higher than cost range. What are the things that have made that difference because Site C has not become cheaper over the years?
- C *Randy Reimann*: The price of gas is a big factor. What is it going to be in the future? In North America as it becomes more limited we are looking at natural gas being imported in. There are locations that need to be built which will come from off-shore. So we start entering into a global market for natural gas. The question is how much is it going to cost to deliver that? The other aspect is the green houses gases that it emits. The whole world is moving in that direction. The Energy Plan requires us to offset all emissions which is also expensive.
- Q *Richard Labonne*: None of this power is going to the US? There is no exportation? Is there anything that says we have to provide US with power in the future?
- A *Randy Reimann*: In the 2007 Energy Plan, the Government said we were getting to the point where we were starting to rely on the US market to

supply us with energy and what the government said is that we don't want to be held to the US markets and their functionality. They want us to be self-sufficient and have enough energy to meet our needs even in dry water years.

C *Dave Conway:* The project, if built would be used to increase capacity. We do export/import on a per hour basis all the time. When we have a surplus in the system we would export, particularly in the spring and summer when we are re-filling the reservoirs. There is a good opportunity for the energy at this facility to be exported.

C *Ben Meisner:* This project would produce power cheaper than wind or other sources and to construct this project would mean we could produce cheap power in BC. What we do beyond this is up in the air. Someone asked what they could do to make us conserve? They will just increase the price and that will make us conserve. The whole key is the plus or minus of 6 ft of the reservoir. It's not going to change the level of Peace River significantly. It gives us an opportunity to produce cheap power for the next 60 years. This project is a win/win. It gives us the opportunity for incredible recreation. It gives First Nations the chance for land to sell to compensate for land lost. The whole problem is when I interviewed the Alberta Premier; I asked him and Gordon Campbell about Site C and they are not convinced they want it to go ahead. Keep in mind there are other constraints such as the users of the water downstream and he also pointed out that there is some opposition in the Northwest Territories dealing with temperatures and icy conditions. They would want to address these issues. They are having reservations over the project. In my mind, there is an incredible opportunity for work; it would be an economic benefit to the province. Wind power has taken on this flare like in Hawaii you can see the old towers laying on the ground. They are trying to get new towers. Wind has a shelf life. Site C has incredible opportunity with a plus/minus of 6 feet of the river level. We have been going around on this project for a long time. Until you have people solidifying some things I fear we will be stuck.

C *Dave Conway:* I will make two comments on what you just raised. The first is the downstream and the use of the water. The province of BC, the province of Alberta and the Northwest Territories are presently engaged in discussion regarding water use and those discussions are ongoing. The other thing is there is discussion between BC Hydro and First Nations. It is a separate but parallel process. Presently the discussions are about protocol and what that might look like and what consultation might look like. We have identified 28 First Nations from McLeod Lake to the mouth of the Mackenzie River that we should speak to in the potential development of the project. There are varying degrees on what those impacts might look like. Certain First Nations in the Treaty 8 portion of the province from Fort St. John, one might think would be more impacted

by this project than those at the mouth of the Mackenzie. There is that process there.

C *Ben Meisner:* There is win/win for First Nations as well. The benefits are not only for the people involved in construction but the recreational aspects as well. The stumbling block is Alberta, which really surprised me the position they took.

Q *Elaine Meisner:* You say that Site C has possible localized climatic changes?

A *Mark Bowler:* The water that comes out of the Peace Canyon wouldn't have a chance to mix. It would remain at a warmer temperature. It was thought in the 70's and 80's that it could cause more fogging and could warm up the valley a little bit. That is important in terms of crops, driving, airports, etc. What we want to do is find out what is likely to happen. We have started to put in monitoring stations to model this effect

Q *Elaine Meisner:* Some of the other resource options, most of their impacts seem to be short term, is this is forever?

A *Mark Bowler:* Yes. Fogging, we would not be able to stop it.

Q *Terry Teegee:* What about mercury issues from the flooding and the health impacts?

A *Mark Bowler:* The amount of organic matter in the water itself leads to more mercury in the water. The key mitigating factor is to remove trees, shrubs from the reservoir and this is the key reason to do this; to reduce potential for mercury. Also you need to consider the sitting period, since all the water goes out in a 24 hour period, there is an opportunity for it not to build up as much. We are studying this as well. The key thing is to take out as much of the organic material from the reservoir before flooding.

Q *Heather Larson:* In the Revelstoke area, was it seriously impacted by fog?

A *Dave Conway:* We'll get back to you about that.

Q *Heather Larson:* Could the same thing happen with Site C?

Q *Heather Larson:* With the heavy metals, won't there be erosion?

A *Mark Bowler:* No. There are deposits of certain minerals which release mercury in Williston and the water in Williston is metal rich so we want to monitor that and build models to find slope stability, prevent sloughing, sliding, and mass wasting into the reservoir as well.

C *Wendy Lannin:* There are significant studies regarding sloughing. The slopes around the reservoir have always been instable. We're looking at different impact lines to study stability. There are a number of slopes we've identified as unstable. There has been a history of slides into the river and we have identified that. We are looking at 5 impact lines. The most obvious is the flood impact line and we're looking at erosion lines; as the reservoir is defined you will have new erosion and beaching. From that process we are identifying the slopes and the impact lines. We are looking at the impact lines from large slides, concurrent impact lines, and

if there were a slide where would the water go and what the safety lines would be. There is quite a bit of work being done on that.

- C *Chris Mikulasik:* Fogging was a topic in Rd. 1 and I was hoping that you would have more of an answer on that.
- C *Dave Conway:* Yes and we're continuing work on that, its one of the studies we're doing.

Page 10 – Map of Peace River Country

- Q *Mike Fawcett:* The 9310 hectares indicated on the map, is that accurate as what Site C would look like in terms of footprint?
- A *Dave Conway:* Yes. It is approximate. It is based on information that is 25-30 years old which we are updating.
- C *Mike Fawcett:* The power generation numbers that are shown show 900 megawatts for 9310 hectares at Site C, but Dinosaur Lake produces 700 megawatts out of 809 hectares. What makes the difference in power generation?
- C *Wendy Lannin:* It depends on the head, how far the water is dropping and how much energy you get from top to bottom.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results

- C *David Helm:* For 41% of people it is very important to improve infrastructure, and 39% for local employment, what are we doing to emphasize local employment?

- C *Dave Conway:* We are not making a predetermination about that. We combined both the extremely and very important when we came up with the numbers, so move from 74 – 65% this is what people in the community want. We hear a lot about jobs and skills training and training development. We need to develop that base. It is not there yet. By no means are we predisposed one way or the other.
- C *David Helm:* It distresses many in the north that economic development is concentrated in the southwest of this province. If we produce cheap energy, why can't we use this as leverage to force development in this area? Would it be an idea to change the billing system that BC Hydro uses from as delivered KW hours to as generated before transmission costs?
- C *Dave Conway:* There is certainly potential. Please put that feedback in.
- Q *Richard Labonne:* What are you doing down the road for future engineers for BC Hydro? For UNBC to train future engineers for this province, BC Hydro could give money to universities to train future engineers.
- A *Dave Conway:* We do have scholarship programs related to particular fields and also directly related to engineers. I'll follow up with you.
- C *Richard Labonne:* I can give you some examples.
- C *Dave Conway:* I would be pleased to talk with you about that afterwards.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation

- Q *Elaine Meisner:* It says that clearing activities would occur over 7 years. With the construction and the impact on forestry, what are you going to do with the material?
- A *Wendy Lannin:* We are planning on working with the local forestry companies in doing this planning. We say that we are doing this in a 7 year period. The logging would take 1-2 years, but spreading it out in 7 years allows minimizing impacts with local forestry companies and work with them.
- Q *Elaine Meisner:* What are you going to do with it though? There is virtually no market for lumber.
- A *Wendy Lannin:* There is no market in today's market but when we go to do this, this is not going to happen for another 4 to 6 years before we start. Hopefully the situation won't be the same. We don't know what the situation will be in that time. We can't plan for today's situation for 7 to 8 years from now.
- Q *Elaine Meisner:* Do you have an estimate on merchantable timber?
- A *Wendy Lannin:* It is about 1.9 million cubic meters from 1999 data. There have been no additional studies done since then.
- Q *Elaine Meisner:* What is the estimate of the value? BC Hydro would be the net benefactor of the timber right?
- A *Dave Conway:* We don't have the number. We are working on that now. BC Hydro is not necessarily the benefactor. Some of it is Crown land and

lots of the timber is already part of timber licenses. For example Canfor on the northside and West Fraser, Louisiana Pacific, Tempack on the southside. A lot of the timber is licensed and part of their long term plans.

Q *Ben Meisner*: In clearing the shore, will it change fluctuation of water levels?

A *Wendy Lannin*: Yes, there will be fluctuations plus or minus 3 feet in the reservoir. Site C will likely remain the same as it is.

C *Dave Conway*: If you maintain fluctuation of plus or minus of 3 feet you have flexibility downstream. If it were a flatter operation, one foot would restrict and effect variable flows downstream as a result. It depends on what you do with the operation of the reservoir which will impact the river downstream below the Site C project.

Q *Ben Meisner*: I'm confused. Based on what we have today in the Peace River below Hudson's Hope, if you were to construct Site C, what will be the fluctuations of river below Site C?

C *Dave Conway*: At present time, it would be similar downstream from Site C as what you see now from Dinosaur Peace Canyon Dam, which is about plus or minus 5 feet.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

There were no comments received.

Page 18 – Reservoir Preparation Considerations Table

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead

There were no comments received.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

Q *Richard Labonne*: What about the sink hole we have now?

A *Wendy Lannin*: Hopefully we will learn from the sink hole. It is a standard production procedure and the sink hole was a special case. Earth filled dams with impervious cores are very common.

C *Richard Labonne*: The material was from around there. It is my understanding that the sand came in slightly damp because of the standing

pools and it became very big. I would like to see something done so we don't make the same mistake.

C *Wendy Lannin:* We always try and learn from our mistakes. It is a standard construction procedure. Those survey stakes are in every dam. Its just unfortunate how it happened at W.A.C. Bennett, we don't have the same concerns.

C *Randy Reimann:* It's not entirely unusual for W.A.C. Bennett dam either. The older earth filled dams start to have sink holes. There are places where water flows through. BC Hydro had the dam surveyed a year before the sink hole. One of the questions we ask is what do you normally see in a 30 year life and when do you start seeing them? You want to keep surveying.

Q *Richard Labonne:* What makes you decide to use the same materials instead of concrete?

A *Wendy Lannin:* The foundations of this particular dam dictate the dam type. It is on a shale foundation which isn't quite suitable for a concrete dam.

Q *Steve Helle:* Are there any concerns over sediment build up?

A *Mark Bowler:* From what I understand, in the Dinosaur reservoir and in the Site C reservoir, they expect them to fill up with sediment. Over the hundreds of years they would fill up with sediment, but from of a power generation point of view it doesn't make any difference.

C *Floyd Crowley:* In that particular case because you're not using it as a reservoir.

C *Dave Conway:* The assumption is that we would take action if there was a sediment matter at the facility.

Q *Floyd Crowley:* Why are you taking all of this stuff from downstream instead of enhancing things upstream? Is the material upstream different?

A *Wendy Lannin:* Where that big area is on the south side is very flat and it is easier to work in. Once you move upstream the slopes become very steep. It is a large flat area that is very close to the project and is easiest to work with.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies

Q *Richard Labonne:* Are you planning to do the same thing as with Dinosaur Lake with the recreation and boat launches, etc?

A *Mark Bowler:* We would follow the Navigable Waters Protection Act to make sure that people could navigate from one side to the other. We would be blocking the navigation channel. It is one of those regulatory processes that have been mentioned. What we're asking is what kind of features people are looking for, but it is difficult to say where they would be placed. There are constraints also from engineering depending on sloughing, impact waves, and dangerous sites.

- C *Richard Labonne*: If the site could be used for fishing and camping, etc. that would be better.
- C *Mark Bowler*: We know we have to do something. We are constrained by environmental responsibility and safety, but yes it is definitely something we are considering. We are taking any suggestions that people have. Please include it in the feedback.
- C *Dave Conway*: We have heard a lot in Round 1 Consultation that people would like to see that as a potential if the reservoir were developed as a potential benefit.
- C *Richard Labonne*: The socio-economic opportunities: in Vancouver they are short of trades, etc. but after 2010 the forecast is quite a bit of unemployment all over B.C. Can you predict that the jobs are going to stay in B.C. or will they need be to go out of province? With the closure of the mills and what is happening in the states there will be a lot of people looking for jobs.
- Q *Mike Fawcett*: What is the make-up of the land ownership affected by the reservoir?
- A *Mark Bowler*: It is 5340 hectares, it's roughly half crown land right now and of the remaining half BC Hydro owns 65%. About 20% is privately held by farmers and land owners in the area.
- C *Dave Conway*: We don't actively go out looking to purchase land. We have a Passive Land Acquisition Purchase Program since the late 70s. We have acquired a substantial amount of land through that program through the last few decades. With a lot of that land, the landowners sold us their land and we lease it back to them.
- Q *Mike Fawcett*: Of the remaining 20%, what is their attitude to the Site C project?
- A *Dave Conway*: I wouldn't want to speak for them because it varies, but generally land owners in the valley are against the project. That would depend on the individual and the impact on each person, not just from flooding but from highway relocation, service roads and esthetics.
- Q *Mike Fawcett*: How many kilometers of highway realignment for Highway 29?
- A *Dave Conway*: It is about 23 km of Highway 29. The 4 main sections that cover about a 60 km, stretch between Bearflat to Hudson's Hope past Lynx Creek. The major sections are Lynx Creek, Farrell Creek, Halfway, and Bearflat.
- Q *Steve Helle*: There is a huge list of studies here, when you have results, how will they be weighted?
- A *Mark Bowler*: At this stage it is pre-regulatory. They will tell us what to do and the regulatory process then would tell us what is important, what to focus on, what to study and what to re-do.
- Q *Floyd Crowley*: Who are they?
- A *Mark Bowler*: The regulators in the BC Environmental Assessment Process, the Canadian Environmental Process, and the BC Utilities

Commission. So those commissioners and the technical chiefs from various government departments would tell us.

Page 23 – Stage 2 Baseline studies underway or planned

There were no comments received.

Page 24 – Land Use; Agriculture

Q *Floyd Crowley:* The oil and gas pipe line that crosses Moberly River: do you anticipate that it will have to be weighted or dealt with, or is it far enough away from the levels coming up that it won't be affected?

A *Mark Bowler:* We are starting to look at that now. The engineering teams are having a look at whether it can be built underwater or whether they would have to be changed, moved or upgraded. There are also some abandoned wells that we will have a look at as well.

Q *Floyd Crowley:* With the transmission line, would it have to be widened?

A *Dave Conway:* The aspects related to transmission from the potential Site C dam which would then go to Peace Canyon are included in the project cost. Transmission upgrades from Peace Canyon onwards are not included in the project cost. My understanding is that you wouldn't need to widen the corridor. You would need to upgrade the conductor etc. but you wouldn't need a wider corridor. BC Transmission Corporation looks at that, the capital planning and any upgrade work. It would be initiated by the development of the project if it were to go ahead.

C *Richard Labonne:* The oil and gas from Taylor, they have technology today which is very precise.

C *Mark Bowler:* I'm hearing those sorts of things, but just because the technology is there doesn't mean it is easy.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

There were no comments received.

Page 27 – Information Item – Transmission Lines

There were no comments received.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation

- Q *Mike Fawcett*: What is the time frame to fill the reservoir?
- A *Mark Bowler*: The construction period is quite long, it is 7 years. The most rapid it could be filled is 3 weeks, where Williston took years. We are trying to figure out what would be the best to do from an environmental perspective. It might be filled in stages.
- Q *Mike Fawcett*: Do you have enough control to mitigate filling or will this have to be controlled through construction processes?
- A *Mark Bowler*: It could be controlled, but it would cost the rate payer money.
- C *Dave Conway*: Our operating policy is 10,000 cubic feet per second minimum to 70,000 cubic feet per second maximum, unless we are required to spill. We are only one of the discharge points. We have major flows in the river depending on the time of the year and we have two major tributaries at the Moberly and Halfway that aren't controlled so we have major flow in the river that we don't have control over.
- Q *Mike Fawcett*: How far upstream is the Halfway from the dam site?
- A *Wendy Lannin*: About 40 km.
- Q *Richard Labonne*: What is happening with the windmills in Hudson's Hope?
- A *Dave Conway*: That is not our project. That is Aeolis Wind. They are the ones that are bringing the turbines up. They are constructing and we are purchasing the power from them. We have an energy purchase agreement with them.
- C *Randy Labonne*: They have put together at least one turbine. I don't know where the rest are sitting.

4. **Feedback Forms**

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

Closing remarks:

- C: *Dave Conway*: I thank you very much for coming out, asking your questions, providing your comments. We greatly appreciate that. I just wanted to re-iterate that no decision has been made to build the Site C project. We are in Stage 2 now and if it were to move to Stage 3 which is the full regulatory Environmental Assessment there would be consultation throughout the regulatory processes. BC Hydro is committed to including the feedback and the input that we receive from all sources including the stakeholder meetings, open houses, etc.; whatever way that you provide that feedback. It goes into the Stage 2 report that will be considered along with the updated financial information and the technical information that we are presently working on. Again thank you for coming out and we will stay around to answer any other questions if you want us to do that.

5. Closure

The small group meeting was closed at 5:30 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

PEACE RIVER REGIONAL DISTRICT

October 22, 2008

Notes from a stakeholder meeting held with representatives of the Site C Project Team on October 22, 2008 at the Best Western Dawson Creek (500 Highway 2, Dawson Creek, BC)

PRESENT: Carolyn Butt, Kirk & Co. Consulting Ltd., **Facilitator**
Siobhan Jackson, BC Hydro
Dave Conway, BC Hydro
Kate O'Neil, BC Hydro
John Nunn, BC Hydro
Chris Horwood, Kirk & Co. Consulting Ltd., Recorder

STAKEHOLDERS: Barb Smith, Mayor of Pouce Coupe, PRRD
Lenore Harwood, Mayor of Hudson's Hope, PRRD
Peter Thomas, CAO of Pouce Coupe, PRRD
Wayne Hiebert, PRRD
Tim Caton, PRRD
Fred Banham, PRRD
Faye Salisbury, PRRD
Kim Frech, PRRD
Shannon Anderson, PRRD
Bruce Simard, PRRD

The meeting was called to order at 3:00 p.m.

KEY THEMES:

- Participants were interested in energy alternatives such as wind and geothermal.
- Participants discussed issues regarding improvements to construction roads to manage increased traffic and public use of the access bridge.
- Participants discussed several legacy benefits, including improved communication transmission (broadband Internet and cellular phone service) and utilizing materials not used in dam construction.
- Participants commented that they would like to have First Nations join the community consultation with all other stakeholders.
- Some participants were concerned that the flooding needed to build Site C would have a negative impact on agriculture in the region.

- 1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders**
Round table self-introductions were undertaken.

- 2. The Consultation Program – Facilitator**

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

- 3. DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bchydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

C: *Dave Conway:* Thank you for coming out today particularly when we have lost Calvin this week. I wanted to recognize the fact that the Regional District is here. We at BC Hydro will certainly miss Calvin. He was a strong supporter of alternative energies. On a personal level I liked him, I knew him, I worked with him and personally I will miss him. I just wanted to take the moment and recognize that and recognize that he won't be at the table today but his legacy will live on. He did a lot for the community and region. The other thing I would like to let you know is that Hugo Shaw has left BC Hydro. He had a career opportunity and took a job as the vice-president for projects for TransAlta. We are happy for him but sorry to see him to go as Project Director. A new Project Director, Danielle Melchior was named on September 29th. She is getting up to speed with the projects and will be hopefully participating in the open houses.

No decision has been made to build Site C. We are in Project Definition and consultation. It is stage 2 of a 5 stage approach. Our deliverable for Fall 2009 is to provide a report with a recommendation to government. At which time government will make a decision sometime after that regarding whether they want us to move to Stage 3 which is the regulatory stage and involves a full environmental assessment on a federal and provincial level. Our regulator is the British Columbia Utilities Commission.

Page 1 – Site C Background – Dave Conway

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First...Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

There were no comments received.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

Q: *Tim Caton:* Do you have to apply to the ALC to take the land that you are going to flood from the Agricultural Land Reserve?

A: *Siobhan Jackson:* According to the legislation, an application would have to be made.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

There were no comments received.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead

There were no comments received.

Page 8 – Resource Options Comparison

Q: *Tim Caton:* I see that you have wind and natural gas priced very similar, why is that?

A: *Dave Conway:* Both of these are based on the cost experiences we have had in the past to bring this resources online. In our last call for example Wind projects were coming in around 76 dollars per mega watt. Natural gas is similar in costs. There is the range because of the volatility of natural gas in regards to the market place. Wind depends on where it is located, how expensive it is to put up and how close it is to the grid. You can have quite a large range in regards to that.

- Q: Tim Caton:* Wind that is being developed in the North requires transmission to the South, whereas with natural gas we already have pipe lines running through the province. Why would there not be a greater differential between wind and natural gas?
- A: Siobhan Jackson:* Those transmission costs are factored in. This is considered a levelized cost when you take in to consideration the various costs of different locations or technologies. These are compared as delivered to load. Gas plants are less constrained by natural site conditions, whereas wind is driven by topography and geography which drives the range.
- C: Dave Conway:* One other thing which is unique is greenhouse gas offsets are larger for natural gas which is included in the costs.
- C: Siobhan Jackson:* So that's unique to a greenhouse gas emitting resource and that is factored in to the range.
- Q: Fred Banham:* Geothermal is so cost effective why don't we see more of it?
- A: Dave Conway:* There is nothing stopping IPPs from coming forward and developing it. If the cost range is there, as you see the example of South Meagar which is near Whistler and the close proximity to the grid, but no IPP has come forward to develop it.
- C: John Nunn:* It's been a potential resource option for over 20 years and no one has developed it.
- C: Fred Banham:* Same thing here up in the valley.
- C: Dave Conway:* It could be based on a number of reasons. It would be an interesting question to ask an IPP or the IPP's of British Columbia why it hasn't occurred. It might be because there is other lower hanging fruit that is perhaps more common in nature and familiar which is being developed.
- C: Fred Banham:* And it begs the question with media stories on the accessibility. Wind is the big thing in Peace Canyon right now. They can't get the turbines and the equipment up to the site locations
- A: Siobhan Jackson:* Another meeting we had a manager from our Energy Planning Group reference institutional barriers. We stay involved with Government to understand if these are technically feasible, but they are able to come online within our jurisdiction. We try to understand if there is anything tangibly preventing those resources.
- C: Dave Conway:* If you look at the bottom of page 8 you'll see the four resources: wave tidal, distributed generation, coal and solar. These are in blue because for us in the present time they are resources that aren't considered by us because they aren't economically feasible or they are still in a developmental stage. When we say that we are looking for 3 examples in the world where these resources are being used on a commercial level if we don't find those then it is not at a level where it's ready for use within British Columbia and it has to be cost effective compared to other resources here. We have the third lowest prices in North America.

- Q: *Fred Banham*: Isn't there a Tidal research project going on off of Vancouver Island near Tofino?
- A: *Siobhan Jackson*: I think there is a wave-energy research project which is similar technology. It is still in the research stage. There are programs around the world where people are trying to move these technologies into the commercial available market but they are not there yet in terms of us bringing them to our customers as a supply base.
- C: *Bruce Simard*: An Ontario company called Modial Energy Inc. is doing solar thermal installations to sell on the grid in Ontario. They have better prices there as an energy utility that is being used in hospitals and senior homes. It is installed on the roof and they continue to own it. It is run like a power generator or windmill and then sells the power. There is participation of industrial development and they sell power back to Hydro.
- C: *Dave Conway*: It sounds like distributed generation with some solar.
- Q: *Fred Banham*: Again your benchmark for measuring has to be 3 viable commercial operations somewhere in the world.
- A: *Siobhan Jackson*: This list as well came from BC Hydro doing research and working with actual market in British Columbia and asking IPPs which projects they are considering putting forward. In terms of large solar, there is not an IPP in British Columbia looking into that as a viable option for putting it on our system. This list that you see is where IPPs are focusing at the moment.
- C: *Dave Conway*: A lot of it will be cost as a driver and feasibility. If you look at the potential energy that each one of these resources can provide and then the adjusted unit range for each in dollars per megawatt hour. You can see with the Distributed Generation, you are up to 414 dollars. On a solar level for home use the return rate for residential is 60 to 100 years. Technology is not there yet to drive the cost down. Water is a little different.
- Q: *Tim Caton*: Why is the capacity of small hydro only 13%?
- A: *Dave Conway*: It is primarily due to flow availability. There is an abundance of runoff in the springtime and summer with rain but those flow times drop off during the fall. It also depends on the location in the Province they are located and then a lot of its snow melt and depending on the location of it you can get freezing where you get no flow which is one the downsides of being in a northern climate. You have a drastic reduction in terms of flow in the winter when you need the energy the most. That is why 13% capacity.
- Q: *Tim Caton*: I can't understand why you'd build a run-of-river project that can only utilize the peak flow periods of the river. Why not build one that uses flow at minimal level?
- A: *Siobhan Jackson*: I think it is really an economic question for the IPPs.
- C: *John Nunn*: The ones that I am familiar with are not built for peak flow, but for a quarter of the peak and still in the winter they run out of water. The sizing and the actual capacity that they install is in terms with BC

Hydro's Clean Power call. It is structured to avoid building big projects that will dump all the energy into the market when we don't really need it. The Pacific Northwest has a lot of energy available in certain periods. There are some constraints to keep that size down.

- C: Dave Conway:* And there is a premium if it is green. If it remains green they get more for it.
- Q: Wayne Hiebert:* Your prices here are adjusted per megawatt hour, how does that relate to the customer?
- A: Dave Conway:* As a resident you're paying about 6.9 cents per kilowatt hour depending on how much you use.
- C: Siobhan Jackson:* That is the cost to your home and this is the cost to the grid.
- Q: Wayne Hiebert:* So the wind farms at 8.2 cents per kilowatt hour, has 23% reliability for 20 years?
- A: Dave Conway:* Yes, and that is typically when the equipment needs to be replaced.
- C: Tim Caton-* Not a very good return on your investment.
- C: Siobhan Jackson:* The biggest investment is in the turbines themselves. The planning life reflects where most of the capital is invested in the types of technology.
- C: Wayne Hiebert:* We are taking up lots of land with the wind farms and we need hydro dams to be the battery for them. This is expensive power, and BCUC is trying to get return for power taking higher cost power into the grid system. It is hard to look at it as a good business case.
- C: Dave Conway:* There is no fuel cost once you have it constructed. You have done your capital costs; there are no fuel costs afterwards. Yes the reservoirs are battery for it but generally it is a good fit particularly in locations where we are water challenged, not necessarily with the W.A.C. Bennett Dam and the Williston Reservoir, but on the Columbia system we are much more challenged. We are adding a new generator at Revelstoke, but we don't have the water. So it won't create more energy, but it will help when we're peaking. Wind helps us with that situation. It can be a good fit that way. It is more expensive power and it is combined with the cheaper power and with the legacy projects like the W.A.C. Bennett Dam.

Page 9 – BC Resource Options Comparison

- Q: Fred Banham:* Conservation has a negligible impact because it already exists?
- A: Dave Conway:* Yes. You're getting the energy back without really doing anything other than putting something in that reduces the consumption.
- Q: Wayne Hiebert:* How much mercury is in those fancy light bulbs that we are using?
- A: Siobhan Jackson:* I don't know the answer to that. I think there are different light bulbs out there with different amounts of mercury in them. I

believe most retailers take them back for recycling which is the best place to take them.

- C: *Wayne Hiebert*: They say to put them in high use areas and then I've heard that they are going to get rid of the incandescent light bulbs so when you flip these off and on all the time, unless they do a technology change between now and then, we could be burning these new light bulbs out faster than we need too. They said at our board meeting that they would be phasing out the incandescent bulbs in a couple years time. You buy a 3-way light bulb and the first ones that they came out with, you spent a lot of money on them and then you chuck them in the garbage after a short period of time because they don't last. The newer ones are lasting longer.
- C: *Dave Conway*: I would like follow up with you afterwards about incandescent bulbs.
- C: *Fred Banham*: There are those new curly cube bulbs that you can't use with a dimmer switch.
- C: *Siobhan Jackson*: I think there are specific ones that you can buy for it. Light bulb shopping is becoming complicated with all the choices.

Page 10 – Map of Peace River Country

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

- Q: *Shannon Anderson*: At the proposed site for Site C, the Fort St. John active landfill is at the end of 269 Road, directly north of the dam. We get calls all the time from people wondering if there has been any study as to the impact on the creek from the reservoir.
- A: *John Nunn*: Yes, that is a study. In Stage 3, an impact assessment would be done for the effect of inundation of the reservoir, the flooding of the reservoir, the leeching of the landfill and anything that would be required to improve containment for example. Something to remember is that the

reason the dam is at that location is because the shale bedrock is above the reservoir and not the flooding foundation of the landfill.

- Q: Shannon Anderson:* Is shale impervious? I'm told that it is fairly porous rock.
- A: John Nunn:* We're doing a pump test right now. We'll get back to you on the permeability. If we go on the information from the core of the site, it has low permeability.
- Q: Shannon Anderson:* We're getting calls even from the First Nations, have we looked into this?
- C: John Nunn:* That is a great question in terms of reference for all the studies that would be done in Stage 3. The public has the opportunity to input into these terms of reference. This is something that is on our radar. The studies will incorporate everything.
- Q: Shannon Anderson:* If this project proceeds and if there is any additional fill, we need capping for our landfill?
- A: John Nunn:* Just wait a couple of pages.
- Q: Dave Conway:* How much do you need?
- C: Shannon Anderson:* 190,000 cubic meters.
- C: John Nunn:* I'll show you some numbers in a minute.
- C: Shannon Anderson:* Onto the bridge access. We have had ideas for replacement of the Fort St John landfill site, and we understand that there are areas we've identified as good landfill site; this bridge would give us access to that area.
- C: Tim Caton:* There is quite a depth of clay which would make a great landfill site.
- Q: Dave Conway:* Just to qualify, where are you looking at for the location of the new landfill?
- A: Shannon Anderson:* On the Southside. No site in particular.
- C: Tim Caton:* We would be open to an agreement about whether the bridge could be used or not by the public.
- C: Siobhan Jackson:* This discussion guide is targeted at the public level, but in terms of inter-governmental use of the bridge, this is a good idea for discussion.
- Q: Lenore Harwood:* What about dam safety?
- A: Dave Conway:* Yes we are aware of that as a situation. We are quite concerned about the potential dangers related to that.
- C: Lenore Harwood:* For my community, we have got concerns about that bridge.
- C: John Nunn:* As a point of clarity, on page 12 in yellow are the construction access roads. If one looked at it from the perspective that the roads were going to be opened to the public, at point D you would have a large radius curve to go around and that would actually separate the public traffic flow from the power house. So those are factors to be taken into consideration for the finalizing of the alignment.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results

- C: *Lenore Harwood*: In terms of benefits, what we are looking for is communication services like broadband and phone services for Hudson's Hope which are very crucial. We are looking for funding through the provincial grants right now. If you look at Highway 29 and some of our roads where there is no cell service between our communities that is something we are interested in.
- Q: *Dave Conway*: So, it is not hard line but, cell coverage that you are looking for?
- A: *Lenore Harwood*: It's cell coverage along those long roads.
- Q: *Dave Conway*: And broadband internet, high speed internet?
- A: *Lenore Harwood*: Yes, broadband which everyone uses to communicate.
- Q: *Lenore Harwood*: When they talk about the upgrades to infrastructure to the roads, were there other roads mentioned in the comments?
- A: *Dave Conway*: Not that I am aware of. We do have the results of the Round 1 Consultation and we can provide you with a copy of that.
- C: *Bruce Simard*: The Old Fort Road is going to need lots of work especially with the heavy traffic, as well as the road to the dump. And on the North side there are huge amounts of traffic. There are going to be a lot of upgrades on that.
- C: *Siobhan Jackson*: Just associated with projects, this [feedback form] is asking for what else communities are looking for that would be beneficial.
- C: *Lenore Harwood*: I can see new road construction being important to the project but I have a problem with creating a new road.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

There were no comments received.

Page 18 – Reservoir Preparation Considerations Table

- Q: *Shannon Anderson*: How much of non-merchantable timber (waste) will there be?
- A: *John Nunn*: I'm not sure about that. We'll get back to you on that.
- C: *Shannon Anderson*: We're looking at ways to dispose wood waste, like a bio-waste facility. We would love to partner with bio-mass energy, for long term solutions of our bio-waste.

- C: *Dave Conway*: I have a ball park number from you that came from Kyle Robertson who has been involved in the reservoir preparation plan and he is using 1-1.5 million cubic meters of merchantable timber and about the same amount of waste wood as well.
- C: *Bruce Simard*: With the wood waste and vegetation, you could bring in a generator burner here and this could be a legacy project which would be a benefit to the region.
- C: *John Nunn*: Like a transfer station for example.
- C: *Fred Banham*: When I hear chipping or bio-energy projects, our solid waste committee is really active in this. We are down to 3 landfills now and if we could turn that into one for the entire Peace region that would be a good deal. Land filling isn't publicly acceptable, but we could do bio-mass and recycling. Landfills are the cheapest method of taking care of the garbage.

Page 19 – Impact on Resources; Looking Ahead

There were no comments received.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

Q: *Lenore Harwood*: Is the earth filled dam to be built without a sink hole?

A: *John Nunn*: That is the intent. There are lessons we learned from that project which will be incorporated into this project.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned

There were no comments received.

Page 24 – Land Use; Agriculture

Q: *Barb Smith*: Are there any studies on the water flows?

A: *Siobhan Jackson*: In terms of flows, unlike the Bennett Dam, this is not a water regulating facility. It doesn't have the capability to change flows downstream. It is essentially taking water from Bennett and Williston, flowing it through the Peace Canyon and then flowing it again through Site C. So within that 24 hour, 1 day period, what essentially goes in will come out.

- Q: *Barb Smith:* Are we not changing the shoreline downstream? How will affect things further down?
- A: *Siobhan Jackson:* We're developing characterization of what those downstream effects might be to determine effects and distances. When we speak of downstream, these effects are localized close to the project versus way downstream like the Mackenzie Delta. The Peace River is the second largest river in North America. With Site C, we would expect some changes around Taylor which would be timing changes, but pretty much once you get past Pine and the [Beaton], the relative effect will be attenuated downstream. Any shoreline effects are localized. We do have our hydrology department doing studies on that now.
- C: *John Nunn:* There are also studies on what might be the changes in water temperature down stream as well as sediment changes and how the gravel bars might change.
- C: *Barb Smith:* It is a domino effect.
- C: *Siobhan Jackson:* We're developing studies for all of this, but generally temperature, sediment and flow change would be felt close to the project but not far downstream. We are working on determining, however, just how far "downstream" is and we will get the engineers and the Hydrology Department to calculate that.
- C: *Lenore Harwood:* I was thinking about my house on the river.
- C: *Siobhan Jackson:* Because you are close to Peace Canyon.
- C: *Lenore Harwood:* There shouldn't be much change from what is happening right now.
- C: *John Nunn:* The one difference will be a timing difference. If the dam is built at Site C those changes will be happening at the same time. The same level of change, but at different times of the day because right now the water doesn't have to travel 80 kilometers down to Fort St. John.
- C: *Siobhan Jackson:* One of the things we are talking about here is the physical changes and what we will do the effects assessment on. Depending on what you are concerned about, the information that you would need to know varies. If your consideration is the water supply at Taylor then we would be looking at the flow level, the ground water level and the sediment. If the consideration is something different, like bank erosion at a certain spot downstream, then again we would take a look at what data we need to determine how this will be affected by the project.
- Q: *Lenore Harwood:* What is Dinosaur Reservoir limnology?
- A: *Siobhan Jackson:* In order to help us in Stage 3 to do a prediction of the future and what the reservoir would be like, we are looking at the body of water upstream. We may also look at other bodies of water that would be similar to Site C if we think that it would help us predict things.
- C: *John Nunn:* It also includes a water temperature profile as you go down.
- C: *Siobhan Jackson:* Stratification, layering and lots of other things.
- Q: *Tim Caton:* Where do you get to be a garter snake wrangler?

- A: *Siobhan Jackson*: In terms of approach, we have asked some consultants to identify potential studies and we are moving into the technical advisory committee process that has a great opportunity to actually talk to the staff or the ministries or the agencies and garter snakes came out for the Ministry of Environment for example. We now know that they are not a listed species, but the garter snake is at the northern extent of its range so it is unusual that they are in this region and we want to know more about them.
- C: *Tim Caton*: I'm not a snake man but I can tell you from experience that you will see an abundance of garters snakes one year and none the next. What happens to them in between? I have no idea.
- C: *Siobhan Jackson*: That comment speaks to the wildlife program and why we want to do multiple years of baseline studies so we can identify the seasonal abundance and variations which can be quite large and I know we've changed our methodology. We are trying to get some information on the fisher and the presence of fishers for example. They are very shy birds. We are using scented bait boxes. We are changing our methodology.
- C: *Tim Caton*: Fishers in that area in the 1960s and the 1970s were very abundant, because the rabbit and the link population were very abundant. When the rabbit population died out, the link and the fisher populations were depleted. The fisher population never came back. The fishers are very territorial and they love to eat dogs.
- C: *Siobhan Jackson*: I think we will have to change our bait boxes. Beaver is what we have been using.
- Q: *Lenore Harwood*: Will we ever see what is happening at First Nations consultation?
- A: *Dave Conway*: The First Nations consultation, as you are aware, is a separate but parallel process. In that process they are working on a consultation protocol agreement. The majority of the work is focused on Treaty 8 within the immediate area. Because of the nature of the consultation and obligation that we have, by mutual agreement most of those discussions are confidential.
- Q: *Fred Banham*: Why?
- A: *Dave Conway*: Jack Weisgerber would be better to provide a formal response as he is leading the consultation. It is recognized by the Crown and by the Charter as being different. There are different aspects related to that, like land claims as well as culture and heritage. For a formal response it would come from Jack and our First Nation's team.
- Q: *Lenore Harwood*: When we look at consultation results on page 15, are the numbers inaccurate because they don't include First Nations?
- A: *Dave Conway*: My understanding of the process with the First Nations is that it isn't at the same level. It is negotiations related to the consultation agreement – primarily with Chief and Council.
- Q: *Lenore Harwood*: And how consultation is going to take place?
- C: *Dave Conway*: Exactly.

- C: *Tim Caton:* So, your dam might not be built for another 25 years.
- C: *Dave Conway:* If you could, share with us what works and what doesn't work. We know that the forestry companies have protocol agreements and we have talked with them.
- C: *Fred Banham:* You note the frustration in the tone of my voice. No one at Government will make a statement or define what the consultation is like going on with First Nations. No one at the Ministry of Transportation, Ministry of Lands, Ministry of Agriculture, or at BC Hydro. It is all different all over the place. No one can define it. How are we supposed to have meaningful discussions if we don't know what's happening around us. As Shannon said, we have projects hung up over consultation, but Victoria doesn't want to accept things.
- C: *Lenore Harwood:* In the region.
- C: *Fred Banham:* This is not directed towards BC Hydro or the Site C project, but at the provincial government and the requirements for consultation. They don't have a standard consultation protocol. Mike Caisley isn't here, but he has contention with the consultation that industry needs to go through and again there is no directive or set protocol that is accepted. Industry is expected to go through this, but basically they have to buy their way through. That is not what consultation is supposed to be.
- C: *Lenore Harwood:* The frustration with me is that we are going through this process and trying to deal with some of the issues on the table. I thank you for doing this whole process for I have been finding it very interesting and I appreciate having a chance to voice my comments and concerns. But to know that there is a whole other process that may negate everything that we have just done...
- C: *Dave Conway:* This consultation process is engaged with community and stakeholders and we certainly are fine with First Nations attending. We haven't seen a lot of First Nations attending. There was participation in Prince George – Takla First Nations.
- C: *Fred Banham:* And that's good, but we should have a consultation process where everyone is involved. We're probably all online.
- C: *Siobhan Jackson:* At the Technical Advisor process, the Blueberry First Nations has agreed to participate. They are present and sharing in the dialogue, but it is still in discussion with Treaty 8 if they will be at the table as well.
- C: *Fred Banham:* That's fantastic that Blueberry is on the table, but where are the rest of them? It is just as important to them as well.
- C: *Siobhan Jackson:* It was BC Hydro's request that brought them to the table, as well with the communities and the local government.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

- C: *Tim Caton:* If Site C is built and the valley is flooded, you realize the impact on the Northeast province – they will be able to grow food within 100 miles as per the 100 mile diet. There are market farmers that can't make a living right now, but things are going to change.
- C: *Siobhan Jackson:* That's a good comment and that is why I emphasized that the agricultural impact would focus on the capability of the land regardless of the current use because it is looking at the long term production of the land and how we could be using it in the region.
- C: *Tim Caton:* With global warming it could have quite an impact.
- Q: *Lenore Harwood:* You have 240 hectares impacted in dam construction. How much land does BC Hydro own already?
- A: *Siobhan Jackson:* The 240 hectares is right in around the dam site. The land affected by the reservoir is approximately 5500 hectares, and roughly speaking about half is Crown land. BC Hydro owns more than half of the remaining. The numbers are not exact because the highway alignment has not been finalized and we have improved the elevation reservation data and that will affect that as well. Those rough numbers will give you a sense that 75% of the required lands are owned by the Crown or BC Hydro.
- Q: *Lenore Harwood:* Because half the land is owned by the Crown, the First Nations have a say on it. Would that be true of the half that is not Crown?
- C: *Siobhan Jackson:* Yes. There are requirements for consultation through the Environmental Assessment Process, which would roll those various provincial land applications together. Most provincial land applications require First Nation consultation as do water applications.
- Q: *Tim Caton:* Is there a requirement that First Nations sit at the Environmental Assessment table?
- A: *Siobhan Jackson:* The Environmental Assessment process, according to the provincial and federal Harmonization Agreement, is led by the BC Environmental Assessment Office and it is their responsibility to ensure their requirements are met. It is their process in terms on how they run it, who is invited and what roles they play. So much is laid out is legislation.

Page 27 – Information Item – Transmission Lines

- Q: *Fred Banham:* The new towers that are to carry power from the generator at Site C to the distribution center at Peace Canyon and the towers coming back from Fort St. John trunk line, would they become redundant?
- C: *Dave Conway:* The present 138, 000 KV towers?
- A: *John Nunn:* There hasn't been a final decision made on that, but at the power plant there would be both voltages. It is possible that Site C could provide the local 138 KV service without those two lines.

- C: *Fred Banham*: The reason I am asking is because that would narrow the right-of-way.
- C: *John Nunn*: That is one discussion that people are having.
- C: *Siobhan Jackson*: There is also a design option on our KV towers. This one you're looking at is a historic design and we're still reviewing it.
- Q: *Fred Banham*: From Peace Canyon down to the Fraser Valley and to points beyond; will there be more power lines required? A widening of the corridor of the Pine Pass down through to Caribou and where else it needs to go through?
- A: *Dave Conway*: Historically for the plan no. At the present capacity it still remains on the present 500 KV. The plan would be to change the conductor, capacitors, inductors etc., on them so you could handle the increased load that Site C would bring.
- Q: *Fred Banham*: Without having to put down a wider corridor and another tower etc.?
- A: *Dave Conway*: This falls with BC Transmission Corporation. There are other loads being added through wind projects. It depends on the interim because no new load is being added.
- Q: *Barb Smith*: Who puts up power lines for IPPs?
- A: *John Nunn*: The IPP will connect to the BC Hydro system. The IPP will construct and maintain the line it is connected to. Once connected, if there are any upgrades for those lines, then BCTC would do those upgrades and then charge to the IPP to cover the cost and then BCTC would maintain that part of the system.
- C: *Dave Conway*: Depending on the load, when you run out of capacity on the line and if an IPP requires an upgrade of the entire line then the IPP bares the proportion of that cost to do that.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation

- C: *Dave Conway*: We have started sending letters out to property owners who would be potentially affected by the realignment of Highway 29 and we are going to start consultation with them. It is one on one with the property owner and BC Hydro representatives to discuss the potential alignment and it is only with those individual property owners, not a group. It is a consultation that is specific to their property and what we have found is that in the past is that property owners, because of confidential nature of their property, generally don't want to have such discussions in groups. That is occurring now until the end of January 2009.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

Closing remarks:

Dave Conway: I would like to thank you for your questions, comments, and your input. We really appreciate it. As we have said, we only have permission to be in Stage 2. If permission were granted to move forward to Stage 3 by the Provincial Government and the Cabinet, there would be a full regulatory environmental assessment and regulatory review. Part of that is ongoing consultation and that is part of all of the process. This is not the end of the consultation process; this is the beginning of consultations. We are committed to including the feedback that we receive from you as an organization, as government, but also as stakeholders and as individuals. The Stage 2 report, along with the updated financial information and the technical information that we are working on will all be considered. I would like to thank you for coming out and we appreciate your time. We look forward to talking to you soon. The deadline for getting your feedback to us is November 30th.

5. Closure

The small group meeting was closed at 5:10 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

JOINT INDUSTRY ELECTRICITY STEERING COMMITTEE MEETING

October 24, 2008

Notes from a Joint Industry Electricity Steering Committee (JIESC) meeting held with representatives of the Site C Project Team on October 24, 2008 at the BCIT Downtown Campus, Room 385 (555 Seymour Street, Vancouver, BC).

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Mina Laudan, BC Hydro
Michael Savidant, BC Hydro
Hugh Smith, BC Hydro
Andrew Watson, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Lloyd Guenther, FSI
Bob Laurie, Cushman Wakefield & LePage
Dave Newland, Elk Valley Coal
Dan Potts, JIESC
Brian Wallace, Bull Housser LLP
Craig Williams, CDN Manufacturers & Exporters

The meeting was called to order at 10:00 a.m.

KEY THEMES:

- Participants expressed support for Site C.
- Participants discussed localized issues including public use of the access bridge and environmental impacts.
- Participants asked that cost estimates including rate inputs be produced as part of Stage 2.
- Participants said they would like to see certainty regarding a decision to proceed with Site C.
- Participants supported the idea of generating revenue for the province consistent with the self-sufficiency policy noted in the *BC Energy Plan*.

-
1. **Welcome and Introduction of the BC Hydro Project Team and Stakeholders**
Round table self-introductions were undertaken.

2. **The Consultation Program – Facilitator**

Provided a brief overview of consultation methods, materials and the agenda.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names we apologize in advance for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Mina Laudan

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

There were no comments received.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

Q: *Dave Newlands:* What type of support in the Peace River Region are you receiving?

A: *Facilitator:* Feedback is mixed; some people are very opposed and some people are very interested and there are some people who will state they are in favor of the project. The Consultation Summary Report details how

people feel about the project and then it delves down and reports on specific aspects about it.

- Q: *Dan Potts:* With respect to the First Nations issue and the BC Hydro revenue requirement submission how does that get involved? BC Hydro is showing \$225 million as a revenue requirement for First Nations?
- A: *Michael Savidant:* I can't answer that question and that is something you will have to bring up at the revenue requirement hearings.
- Q: *Dan Potts:* With respect to the First Nations, past issues are still a problem up there and I just wondered if there was a resolution?
- C: *Mina Laudan:* Our team hasn't really been involved with the negotiations; our Project Team has been looking at the current review of Site C and developing a protocol agreement with the Treaty 8 First Nations. Our project team hasn't been looking backward.
- Q: *Dave Newlands:* What is the earliest that Site C could be in service before 2021 – do you have an earlier estimate?
- A: *Andrew Watson:* There are regulatory processes that BC Hydro has no control over and it is too early to say. This is a mid estimate.
- C: *Michael Savidant:* Just a clarification, the first two units would come on line in 2018 and then the final units in 2019.
- Q: *Dan Potts:* My understanding is that the government has reserved a decision on Site C and if they decide to go ahead it negates a BCUC¹ hearing, does it not?
- A: *Michael Savidant:* I don't think that is it - it really depends on what the government decides and in the 1980s the government had decided to go ahead with Site C and the application was turned down at the BCUC hearings. So it really depends on how the province decides the project could go forward and our assumption is that we would have to go through the regulatory process.
- C: *Dave Newlands:* But the caveat, from the BCUC, was that it would go when the need was there.
- C: *Dan Potts:* The government and BC Hydro is all one thing anyway.
- A: *Facilitator:* We have had a lot of discussion and questions on what are the next steps from the Peace Region and BC Hydro has not been told what the regulatory process will be and we still wanted to outline what they expect with respect to the regulatory processes and that is why they are detailed in the Discussion Guide.
- C: *Dan Potts:* It bothers us that you are spending all this money, \$40 million, without a decision to proceed.

¹ British Columbia Utilities Commission

- Q: *Craig Williams:* We have been doing some work with BC Hydro on a demand side management program in a small manufacturing way but it seems to be moving so slowly. The work is with Power Smart and it is the Industrial Power Partners Program. We are working directly with a contact at BC Hydro and this is a huge opportunity for the Province and I am just looking for help because it seems to be moving so slowly.
- A: *Mina Laudan:* Thank you I will take that as feedback and while I don't know the details of the program I can take that back.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Michael Savidant

There were no comments received.

Page 8 – Resource Options Comparison

There were no comments received.

Page 9 – BC Resource Options Comparison

- C: *Mina Laudan:* I am sure that you are all familiar with the LTAP² so we will talk mostly about the charts on Page 7, 8 and 9 of the Discussion Guide.
- Q: *Dave Newlands:* Why do you talk about coal on Page 4 and then drop it on Page 7?
- A: *Michael Savidant:* The idea behind coal is that in the Long Term Acquisition Plan there are several types of generation that were identified as commercially available and coal was identified as not commercially available because of the Energy Plan requirement to sequester all emissions. While the technology is developing it is not seen as viable today. Coal is on Pages 8 and 9. We don't have good unit costs with respect to carbon sequestration and we need to do an analysis.
- C: *Dave Newlands:* At about \$250 a megawatt an hour I would think that coal plants would be in the range with full sequestration. I agree with you on the \$100 a megawatt hour.
- A: *Michael Savidant:* Thank you for that feedback and we need to do the analysis.
- Q: *Dan Potts:* These are the same numbers you have had for a year, aren't they?
- A: *Michael Savidant:* Yes, and we will be updating those numbers at the end of Stage 2.
- C: *Dan Potts:* With respect to the UEC³ we have a problem with that because no one understands that number – we would like to have the rate impact number and BC Hydro refuses to supply that number.

² Long Term Acquisition Plan

- Q: *Dave Newlands:* Also, I think that you should revisit coal at \$200 - \$250 megawatts an hour.
- A: *Michael Savidant:* Yes we have got that.
- Q: *Brian Wallace:* I see you are showing conservation at a flat \$42 and I would have thought there would be a range of megawatt hours available?
- A: *Michael Savidant:* When we put together the table I wanted to base it on what was publicly available in the LTAP and we put in \$42.
- Q: *Brian Wallace:* I don't think you provided 13,000 gigawatt hours at \$42?
- A: *Michael Savidant:* That is the average cost for that amount and that was in Part B and there were two potential rate plans and they were in the \$42 and \$43 range.
- C: *Brian Wallace:* Imbedded in that is a range from \$0 for legislated changes to \$110 for something else and to put an average for that when everything else is shown in a range doesn't make sense.
- A: *Michael Savidant:* That is why we have flagged this – that the range isn't available at this point.
- C: *Brian Wallace:* There is a range for every other number and you show it and you should show it for this.
- C: *Dan Potts:* The range is available and you (BC Hydro) are just not publishing it.
- Q: *Brian Wallace:* The resource options are shown with ranges and that makes sense and you should show this resource (conservation) in the same range as you show the others. This average contains stuff that is free just by legislating.
- A: *Facilitator:* So I am really just an observer to this and I am hearing you – how does that relate to Site C?
- C: *Brian Wallace:* The only way it relates is that you put resources with ranges for everything else and that makes sense and this is a resource just like the others and the range is \$0 and it goes up to \$100 - \$150 who knows what the top line is and you probably don't want any of that so showing this resource on the same basis as you show the other resources is a fair way to do it.
- Q: *Dave Newlands:* Is there any way of telling the rate impact?
- A: *Michael Savidant:* The rate impact, the levelized rate impact of an option, depends on how they are treated by the BCUC.
- C: *Dan Potts:* I don't want this talk to be interpreted as any objection to Site C because we think it is potentially a very valuable product/resource that is something that deserves serious consideration for development but we just wish that BC Hydro, in its evaluation, would be more straight with its'

³ Adjusted Unit Energy Cost

customers and the public about what the costs are. We project that BC Hydro's average power costs will go from approximately \$50 megawatt hours per day to approximately \$100 megawatt hours per day by the time that this project is complete. That is the average cost and if you take normal growth in the province and new supply and costs in the LTAP with respect to various resources like wind and our projection is that BC Hydro's costs will go up by 7.5% a year for the next decade which doubles then from the current level to \$100 a megawatt hour which is not too far from Site C costs. Here are our costs and we have a number of different scenarios and you don't want to update the number.

The record notes, at this point, that Mr. Potts submitted: (1) *Site C cost per MWh*; (2) graph titled *BC Hydro Site C Unit Cost*; and (3) table titled *BC Hydro Cost of Energy*. This submission will be attached to the minutes as an appendix.

C: *Facilitator*: In fairness, you have been told that the costs will be updated at the end of Stage 2 and it was at Stage 1.

Q: *Dan Potts*: I still don't understand why you don't update it now?

A: *Michael Savidant*: Have you reviewed the response to the IR at the second round of LTAP? There was a mistake – when you calculated your yearly rate impact you made assumptions around financing, around what is going on around the rest of the company, basically stability, and around the project. Would the ratepayers recover the costs as they occurred or whether the procurement would cause a levelization of costs? The cash flow is the cash flow and you are going to have to recover the cash flow from rates no matter what and using a levelized rate impact you get the same number as the UEC, however in your calculation you didn't get the same number and that was because of a mistake in terms of how you discounted energy. You discounted energy at a nominal discount rate versus a real discount rate and that makes the levelization wonky. If you had used a correct discount rate on energy you would get a levelized rate that was effectively the same as the UEC.

Q: *Facilitator*: Time out. What I need to understand, as a layperson, is what does this conversation have to do with Site C? There are other venues for conversations about rates, so what does this have to do with Site C?

A: *Dan Potts*: We are interested in feedback on the viability of the project and that is what we are providing. Our group of people are price sensitive and we have companies that operate only because of the low cost of power and the cost impact is the essential impact and the other thing is that we think it is interesting to look at what government has done since the estimate and the changes in costs for Site C in terms of water licenses, equity and other good things.

- C: *Dave Newlands:* The issue with the levelized cost is that if the cost goes way up in the first 5 years and you are not in business after that then the levelized cost is irrelevant.
- A: *Michael Savidant:* We understand that and the actual yearly cost to ratepayers is based on decisions that governments will have to make. We will take that back and we appreciate that, but providing a year-by-year cost breakdown at this point has to be based on decisions made in the future that haven't been made yet.
- C: *Dan Potts:* To me Site C has tremendous value, it is a dispatchable energy resource and wind is a long way from that and it is difficult to quantify that when you compare it to other resources such as wind which is intermittent. Site C, with the large reservoir behind it and an ability to dispatch and respond to load – there is a value here that is disproportionate to the cost.
- A: *Michael Savidant:* We have tried to identify whether or not it was dependable or load following or intermittent on Page 8 of the Discussion Guide and in terms of the adjusted unit energy cost we are going by the analysis in LTAP and there is some adjustments in there to try and reflect that kind of dispatchability and value.
- C: *Bob Laurie:* JISEC represents about 21 major industrial customers of BC Hydro and we purchase about \$400 million a year in power annually.
- C: *Dave Newlands:* At Elk Valley we are consumers of about \$120 million of power a year.
- C: *Dan Potts:* We want to be well informed and understand. It still worries us about what the real capital cost will be and where this number is going and this is still of great concern to us and with respect to the rate impacts that gets real scary.
- Q: *Brian Wallace:* There is \$40 million being spent on Site C consultation and the graph put out by Dan (Potts) shows that the Orders in Council have increased, by our calculation, costs to Site C where it shouldn't be on the table or go to the next stage. The Orders in Council are reflected in increased water rentals and increased equity cost and that has driven cost, not the real costs, these are payments between BC Hydro and the Province that have been driven to the point where economically the project looks marginal. Yet, on another level it looks like a 'no brainer' to go ahead and use that water a third time over and that makes a lot of sense – it has a lot of attributes and is firm power. But if the province is going to drive the cost so high, should we be spending \$40 to \$70 million or whatever it is going to be by looking at it? Instinctively we want to support the project but with the uncertainty around the decision that is causing us concern.
- A: *Mina Laudan:* That money is not all being spent on consultation by any means rather there is a broader program of geo-technical and environmental studies that is going on and that is where the majority of the budget is being spent.

- C: *Brian Wallace:* That is my point, if you are going to run this off the table by putting cost overheads on it then spending the money is a waste of money if the project does not go ahead.

Page 10 – Map of Peace River Country – Andrew Watson

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

- C: *Dave Newlands:* Why not put an arrow on the river to show which way it flows?
A: *Andrew Watson:* I understand that – it flows to the right.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E) – Andrew Watson

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

- Q: *Lloyd Guenther:* You are not really providing much information, but is one of the issues that the road will bypass Dawson Creek?
A: *Andrew Watson:* It would bypass that and as well it could provide access into an area that could cause environmental concerns. Some people are interested and others are not for a variety of reasons.
C: *Facilitator:* With respect to the notion of opening access to the south bank in the first round of consultation provincial stakeholders were more concerned than regional stakeholders.
Q: *Bob Laurie:* The local folks are deriving a sense of benefit and it is not the local folks that have concerns? You are putting that very diplomatically.
C: *Facilitator:* I want to be clear here, when we ask questions about increasing access, provincial stakeholders have said no they are not sure if they want to open access.
Q: *Bob Laurie:* Is that recorded who those provincial stakeholders are? I would like the list.
A: *Facilitator:* It is available in the Consultation Summary Report for Round 1 and there are a lot of interests and concerns that are factors here.

- C: *Mina Laudan:* I was thinking of two additional points. Looking at the construction impact of Site C is something that we would have to study as part of the environmental assessment and that is one of the reasons why we are also looking at it. Secondly, looking at whatever connecting roads come out of this is not a BC Hydro decision and we will feed back comments to the Ministry of Transportation and Regional Government.
- A: *Andrew Watson:* Note, on the engineering side, if it was a public bridge then we would have to design it accordingly.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Mina Laudan

- Q: *Dave Newlands:* Looking at the chart how do you weigh what is going on with respect to special interest groups that skew results? Does this reflect how the general population feels?
- A: *Mina Laudan:* This is the direct feedback, without any interpretation, and our role as the Project Team is to take that feedback and look at the project and come to some decisions on how we can incorporate that feedback. We haven't done a public survey.
- A: *Facilitator:* Public consultation is never statistically significant and that said you also cannot come to the conclusion of an expression of special interest because they attended a meeting because that would be inaccurate and in this consultation there are many ways to provide feedback. Attending a meeting is only way to provide input. In round one, 936 persons participated, there were 224 feedback forms returned and 360 persons attended open houses – so you can see that there were many ways. No one group has dominated the consultation. What you are looking at here is the Peace River Region and 74% identified infrastructure as something that they really wanted to look at.
- C: *Dave Newlands:* So if you did this somewhere else you might have different results – that was my point; this is reflective of the Peace River region.
- A: *Facilitator:* Right, and to be clear 66% provincially rated infrastructure as very or extremely important and that is the difference.
- C: *Craig Williams:* IPSO polling recently said that 9 months ago all people cared about was the environment and now all they care about is the economy. So that shows how things change and we have just gone through an eight year boom run on the economy and it will be interesting to see what develops and where this goes.
- A: *Mina Laudan:* That comment also speaks to the value of the staged process – where we can pause and say does it make sense to stop or does it make sense to continue.
- C: *Craig Williams:* The benefit of a long project time is that it does take into account cycles in the economy.

- Q: *Craig Williams:* Are First Nation issues tucked in the employment skills training?
- A: *Mina Laudan:* No that feedback is reflective of the public process and the First Nations consultation is a separate parallel project and those results are not captured there.
- C: *Facilitator:* You are referring to a broader issue here and their ability to participate.
- A: *Craig Williams:* Yes and as we talk to everyone it will be very important to have the ability to demonstrate stability as the project moves forward.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Andrew Watson

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

There were no comments received.

Page 18 – Reservoir Preparation Considerations Table

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead

- Q: *Dan Potts:* What were the considerations? Is there more value if the fluctuation of the reservoir is larger?
- A: *Michael Savidant:* Generally more flexibility is worth more. A 6-foot range is a fairly broad range and we don't expect it to go beyond that on a regular basis. We looked at optimum conditions and what range do you use and that is where the 1.8 meters came from.
- Q: *Dan Potts:* So you haven't given up significant value?
- A: *Michael Savidant:* There will be water management discussions as part of the environmental assessment and there will be trade-offs and maybe more constraints in how we operate. This is the broad limit and lots of things could happen through the water use planning process and there will be trade-offs.
- C: *Hugh Smith:* In initial discussions with the Water Controller's Office he has requested that we do look at those ranges because there are a number of objectives including stable reservoir flows downstream, stable habitat and recreational opportunities. So prior to coming to a conclusion we will want to look at those various alternatives.
- Q: *Bob Laurie:* Any study on hindsight? Any study on "here are the mistakes we made"? Has anyone documented the mistakes more than just doing it again? We have a huge history in this province.

- A: *Andrew Watson:* Yes we know with respect to the Williston Reservoir that there has been a learning process and it is 30-years later from the Revelstoke Reservoir and one of the differences is the EAO⁴ and impact assessment processes and we know that we have to demonstrate the best balance.
- C: *Hugh Smith:* We do have a concept of ‘environment by design’ wherein we superimpose some of the environmental objectives over the project and with what we now know we apply that knowledge.
- Q: *Lloyd Guenther:* Have you looked at the impact of doing this over 7 years and why not do it over 2 years and minimize the visual impacts and the vegetation re-growth?
- A: *Andrew Watson:* That is good feedback and right now our planners are looking at 7 year window although it may be concentrated in certain areas.
- C: *Hugh Smith:* That is one of the discussion topics we are having with the Ministry of Environment and, for example, some considerations are winter nesting birds and we won’t have the opportunities to clear because of their nesting period and then there are other species like the beaver where we may have to do it over an extended period of time. So it may be desirable to clear in winter and clean up later – there will have to be clean ups.
- Q: *Dan Potts:* I don’t care how well you clean it I think that you will still have floating debris and will you clean that up?
- A: *Andrew Watson:* Yes, no doubt we will.
- C: *Hugh Smith:* Revelstoke is a good example and debris was not an issue there and the systems tend to flush through fairly quickly, which is different from Williston.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – Andrew Watson

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

- Q: *Dan Potts:* Is it clay?
- A: *Andrew Watson:* No it is till.
- Q: *Dan Potts:* Any other dam building technologies that would be cost effective at the site?
- A: *Andrew Watson:* This is the most economic dam type and that is why it was chosen. The site was specifically chosen because it allows us to perch the concrete structures on the south side and have an earth filled dam across the river.

⁴ Environmental Assessment Office

Q: *Lloyd Guenther:* No limestone canyons?

A: *Andrew Watson:* No, it is shale bedrock.

Q: *Bob Laurie:* Wildlife, is like saying should we save trees and we are bombarded all around us, for example, the plight of the polar bear. What I would really like to know is if a species is going to be eliminated? This is a flyway and I would want to know what the impacts are so that we can make an informed decision. I have no faith in some of these things, when I look at your feedback form of course I don't want any environmental impact but this is about balance. I want contextual information so that we can eliminate objections that will logically come and we want to get to the nub of real objection as opposed to peripheral objections.

C: *Facilitator:* There are about 70 technical studies that will be undertaken and Hugh Smith will go through that in the presentation of the next section of material.

Q: *Craig Williams:* Just building on what we said earlier about learning from 30-years ago and all the dams that are being built around the world – has BC Hydro been benchmarking technology?

A: *Andrew Watson:* Yes we have been reviewing and looking at the new technology both here in Canada and elsewhere, for example, I was just in China in July.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Hugh Smith

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned

Q: *Dan Potts:* Any red listed species?

A: *Hugh Smith:* The western toad is one and it is sort of interesting with the western toad because there is no shortage of them in northern BC but there is a problem in the southern portion of the province so it sort of depends on how they are listed. We will be looking at how many are found and whether we can recreate the habitat. The issue with wildlife is that you are going to flood their areas, so we will be looking at habitat types and whether they will be able to find alternate habitats.

Q: *Dan Potts:* Would you create valuable habitat?

A: *Hugh Smith:* That is the objective and we will have to compensate and mitigate for habitats. We have to put a management plan in place and we are looking at creating wetlands and other lands that are important and we will have to come up with a plan that mitigates.

Q: *Craig Williams:* These studies are just for Stage 2?

- A: *Facilitator:* This is survey and baseline information studies and it is not an impact or analysis study as they will be done in Stage 3 if the project goes to that point.
- C: *Hugh Smith:* We will have to go through and look at the habitat and develop a plan to address any impacts around that loss of habitat and we are developing the baseline information right now.

Page 24 – Land Use; Agriculture – Hugh Smith

There were no comments received.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

There were no comments received.

Page 27 – Information Item – Transmission Lines

- Q: *Bob Laurie:* Are you seeking out the environmental groups to engage them at this stage of the game? You have got to get them early and have them walk through the process so you don't get the public hearing hysteria. Be pre-emptive and minimize the invasive nature.
- A: *Mina Laudan:* We meet with the environmental groups at a meeting like this – all the major environmental groups were invited. Before they engage on the detailed project they are starting high up and looking at other resource options and conservation.
- Q: *Dan Potts:* Is there potential for recreation and would it be available?
- A: *Hugh Smith:* Yes recreational opportunities will exist and there aren't many lakes in the area. There is a group of users up there called the "River Rats" and they are in support of the project because they can see a broader boater use on the reservoir. The level will be stable and there is an opportunity to create beaches and other recreational opportunities there. As well there may be opportunities to assist the agricultural community.
- C: *Dan Potts:* Do you mean assist the agricultural community by irrigation? Look at the Columbia River and see how they have facilitated huge agricultural benefits and local development in addition to exporting power and this would be a way to get away from 'us' versus 'them'.
- Q: *Bob Laurie:* Heat sink? Change in climate?
- A: *Hugh Smith:* We are putting climate monitoring stations in around the area to look at that and there is a flushing rate so you may not see too much change although there may be fog.
- A: *Facilitator:* Climate change and issues of fogging were addressed in the June consultation period.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation

C: *Mina Laudan:* We have heard common themes today and your input is important. There are lots of opportunities to provide feedback. As well we are meeting with impacted property owners from both the flooding of the reservoir and the realignment of the road. The First Nations consultation is on-going.

Final Discussion:

C: *Dan Potts:* On Page 29 of the Discussion Guide I would urge everyone to circle 4.

C: *Dave Newlands:* Government impact can make or break it and sometimes government takes off regulations in the early stages to help a project because the cost of the project will be like a teacup, up and down, and if the project got relief early on that would go a long way to smoothing the cost of the project and it wouldn't seem to be keep adding on to make it uneconomical. I don't hear relief for this project and often a large project gets relief early on. This project seems to get incremental costs and doesn't seem to get the incremental benefits.

A: *Facilitator:* I would encourage you to write that down as feedback. Please remember the Open House on November 5th and I would encourage you all to attend.

Q: *Dan Potts:* With respect to the transmission line to the Peace Canyon and the optimization of capability of capacity – would that require additional strengthening?

A: *Michael Savidant:* Upgrades of the transmission line are not included in capital cost as it stands right now.

A: *Andrew Watson:* Site C is treated as a portfolio.

C: *Dan Potts:* We are going to get \$190 million from the trading account. This type of asset (Site C) has tremendous ability to include trade costs and this is a benefit to the consumers and this is a very real aspect of the project that doesn't get much mention here and maybe for good political reasons.

A: *Michael Savidant:* We are not building to export – we see a requirement for additional resources in BC and right now we are a net importer – on a net basis we buy more than we sell. So there is that net need; Site C would now be built to export.

- C: *Brian Wallace:* The self-sufficiency policy requires that we will be exporters 9 years out of 10 and putting the economic benefit of that policy into the calculation would be useful.
- C: *Bob Laurier:* PowerEx grosses \$5.9 million a year so they must be doing something – you have got the asset and it is not just contained and consumable and the down side is covered by looking at potential for net exporter and it would be great as a caveat or addendum to see that analysis of the asset to put it to that use.
- C: *Dan Potts:* I can understand why we keep talking about building for our needs.
- A: *Mina Laudan:* This is about a balance of energy to meet needs, for example, wind and run-of-river coming on line at a particular time and how much do we need in firm dependable capacity 365 days a year? This is about balance and doing the planning in an integrated way.
- Q: *Lloyd Guenther:* One of the problems is out of the LTAP and Site C should be capped on what BC Hydro is willing to pay for IPP⁵ power and then Site C may be the best economic alternative but it is hard to argue that when it is not in the LTAP?
- A: *Michael Savidant:* There is conservation and IPPs and there is risk around those resources and Site C is in LTAP as a contingency. We see keeping it as a potential option for the future in case of high prices or poor response or poor conservation and we need to keep it as a contingency because of the long lead time.
- C: *Brian Wallace:* 7 to 10 years on a contingency is a pretty long lead time. You don't usually contingency plan with the resource that takes the longest to bring on stream.
- A: *Mina Laudan:* An earlier document showed that large hydro has the longest lead time and one thing about the contingency option is that it has a date on it and that is the date to work towards. Of course there is still the decision as to whether it remains in the plan as a contingency.
- Q: *Lloyd Guenther:* Be realistic, wind is a 15 year life and this is a 100 year life and I don't see that anywhere – the effects of the longer term and what does it really mean?
- A: *Michael Savidant:* It is in the analysis done in the 20 year plan with end state values that reflect the long term value of the resource and we have recognized that to some extent at this stage.

⁵ Independent Power Producer

C: *Dave Newlands:* The reality is that we have lower priced hydro now even though the public was not in favor of it at the time. This seems like the same thing all over again.

Q: *Lloyd Guenther:* Back when some of the dams were built they were of extremely high costs and some industries were denied the right for cheaper self-generation but in the end the dams turned out to be very good.

A: *Michael Savidant:* On an economic basis it is very rare that a large hydro project like this wouldn't be economic in the long term although there are other impacts than just economic.

C: *Dan Potts:* Thank you, we appreciate your time and it has been very interesting. We continue to support the project but we think you should go to Cabinet and get authorization to proceed and start the bulldozers tomorrow.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 11:51 a.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

CHETWYND LOCAL GOVERNMENT

October 27, 2008

Notes from a local government meeting held with representatives of the Site C Project Team on October 27, 2008 at the Pomeroy Inn & Suites (5200 North Access Road Chetwynd, BC).

PRESENT: Carolyn Butt, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Wendy Lannin, BC Hydro
Kate O'Neil, BC Hydro
Hugh Smith, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Brenda Maisey, Councillor
Merlin Nichols, Councillor
Bob Nicholson, Councillor
Mike Redfearn, Chief Administrative Officer
Joanne Robert, Councillor
Wayne Rose, Councillor
Evan Saugstad, Mayor

The meeting was called to order at 12:35 p.m.

KEY THEMES:

- On behalf of the District of Chetwynd, participants supported public access to the construction roads and access bridge, provided there is a highway connection between Chetwynd and Fort St. John. Participants commented further that the highway should be part of the Site C project scope.
- Participants were interested in alternative energy sources such as wind and tidal.
- Participants commented that the reservoir should be adequately cleared.
- Participants were interested in whether the environmental studies done for Williston would help with the studies for Site C.
- Participants asked what would stop Site C from being built.

-
1. **Welcome and Introduction of the BC Hydro Project Team and Stakeholders**
Round table self-introductions were undertaken.

2. **The Consultation Program – Facilitator**

Provided a brief overview of consultation methods, materials and the agenda.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

Q: *Merlin Nichols:* What is the relative size of 10 megawatts?

A: *Dave Conway:* It is quite large basically wind turbines are about three megawatts in size.

Q: *Merlin Nichols:* So basically about three wind towers. How much does Chetwynd use?

A: *Dave Conway:* I don’t know but I will check and get back to you on this.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C – Dave Conway

- Q: *Evan Saugstad:* With the changes in the world economy, how will the government factor that in for energy needs?
- A: *Dave Conway:* We do an on-going integrated electricity plan and that forecasts load and what it is like and then out of that we produce a Long Term Acquisition Plan (LTAP) – we are updating the load forecast information all the time. So we are looking at the economy now and how that may affect the load.
- Q: *Evan Saugstad:* Will that be done in time for Round 2?
- A: *Dave Conway:* An update was done for the current LTAP and that LTAP is in front of the regulator right now.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics – Dave Conway

- Q: *Merlin Nichols:* With respect to the legacies – can you give more material/information on that?
- A: *Dave Conway:* I will do that as soon as soon as we move to that section of the presentation.
- Q: *Bob Nicholson:* Because of the fast change in economics and what is coming down the tube, is there any way of estimating the lesser cost of savings and the lesser cost of financing and that sort of thing because it could twist the other way related to the cost to build the facility? Because if it continues the way it is, interest rates may drop so far down to the point where it is significant and there is also the issue of availability of funds, have you thought of that?
- A: *Dave Conway:* Part of the report to government at the end of Phase 2 will include the consultation results, updated technical and financial information to fall 2009 and I expect that we will have a better idea then of what the cost will be. The range will vary and will include interest rates.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Dave Conway

There were no comments received.

Page 8 – Resource Options Comparison

There were no comments received.

Page 9 – BC Resource Options Comparison

- Q: *Merlin Nichols:* Can you explain what you mean by incremental impact?

A: *Hugh Smith:* No net incremental impact and back in 2002 the Board of Directors of BC Hydro said that there would be no net environmental impact and that means despite growth from 2004 there would no net impact on the environment and we are currently working on developing metrics around that.

Q: *Brenda Maisey:* What about the preparation of the site?

A: *Dave Conway:* We will move to that section of the presentation shortly.

Q: *Merlin Nichols:* When you talk about conservation do you mean that primarily through education or through technology?

A: *Dave Conway:* We are looking at this through a variety of things including but not limited to education. One of the things we are currently working on is the change to smart meters in the province and that will enable BC Hydro to go to a time and use basis. So we are looking at a real mix with respect to the conservation initiatives.

Q: *Brenda Maisey:* What does dependable flexible mean?

A: *Dave Conway:* Not only is the energy there but you can vary your ability to flow the load. When we look at the load it varies accordingly to the hour and flexibility means that you can track the load and increase or decrease your generation. Dependable is there but once it is up the operators like to run flat out like nuclear and coal so while they are dependable they are not flexible and hydro is both.

Q: *Brenda Maisey:* Why can't power be produced where it is used?

A: *Dave Conway:* It can be, but the type of transmission is different. We do have a Burrard Thermal Station that generates power in the lower mainland and that is actually a better use of energy because there is line loss associated with transmission.

Q: *Brenda Maisey:* What about run of the sea, run of the coast products?

A: *Dave Conway:* The key is that wave technology is experimental and the problem with tidal is price and tidal is a very expensive option right now.

Councillor Wayne Rose departed (1:11p.m.)

A: *Huge Smith:* A small test project is going in at Race Rocks but it is very difficult environment.

Page 10 – Map of Peace River Country – Wendy Lannin

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

- Q: *Evan Saugstad:* Have you looked at creating a road network then de-connecting Highway 29 north of Hudson Hope? On one hand you are saying parts of Highway 29 will be flooded etc. and then on the other side you will reverse the flow of traffic and say that it is outside of the scope of the project. Look at the resources on Jackfish Lake Road and put a bridge across and connect it and then the wood is closer and it is closer for the gas and everything that contributes to our economy will go to Fort St. John, so how do you say that? Both are connected to travel and the economy.
- A: *Wendy Lannin:* That is why this topic is here, we are trying to collect that information.
- Q: *Evan Saugstad:* Already you are saying that this is outside of your jurisdiction?
- A: *Dave Conway:* The key is public access and most of our facilities are experiencing less public access, not more. The first question is should there be public access and if yes, what would that look like?
- Q: *Merlin Nichols:* What is public and what is not? When the gas companies build a road and forestry builds a road traditionally it is public access. I can't see any legal difference.
- A: *Dave Conway:* There is a difference. From the perspective of an access bridge for construction and roads to our facility, that will not be a public road. I don't know the difference between that and forestry and gas roads.
- Q: *Evan Saugstad:* We know that there will be no more access across dams. BC Hydro can't say, "It is too late, someone else has to deal with it", because then nothing gets done.
- A: *Facilitator:* That is a good comment and should be noted on the Feedback Form.
- C: *Dave Conway:* We heard in the first round of consultation from some that if the bridge and road were to go in, that there should be a good highway.

- C: *Brenda Maisey:* BC Hydro has already purchased the land which is going to be flooded and the other land around there is Crown land. I recognize the security issues around the dam, but if it is Crown land then it is public.
- A: *Wendy Lannin:* Yes, and if the project goes ahead then BC Hydro will purchase the land.
- C: *Hugh Smith:* Under the Land Act there would be a requirement for us to have access and an agreement would be reached with the provincial government. Security of the dam site would be built into the requirements. There are some outstanding private and crown lands that would have to be looked at.
- C: *Brenda Maisey:* Yes and I was just trying to get in my mind public right-of-ways because the rest of it belongs to the people.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

- C: *Bob Nicholson:* Going back to the first dam, we were promised on-site power and even if there could be a short time reduction in power for industry that could really help. Charge them for equivalent costs and that could help to bring some industry here and this would be a tremendous gain for our community and could give us an opportunity to get a type of industry that might never consider coming here.
- A: *Dave Conway:* Thank you and please make a note of that on your Feedback Form.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Wendy Lannin

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

Councillor Bob Nicholson departed (1:33 p.m.)

Page 18 – Reservoir Preparation Considerations Table

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead

- Q: *Brenda Maisey:* You are talking about leaving some natural stumpage and leaving some other material to create fish habitat; how do you decide what level of mercury is safe? At the moment there are warnings about eating

lake trout at Williston because of the high mercury levels. How do you do the studies?

- A: *Hugh Smith:* The health warning at Williston was instituted by BC Hydro when the reservoir was going through a cycle with higher mercury levels because of the organic materials there. This would not be the case at Site C. Site C will not be a large reservoir and will not have high organic material relative to that found at Williston. This (Site C) will be pretty much a cleared reservoir and we are currently undertaking fish tissue studies now and looking at world models, but I believe that there is not enough surface area to see a substantive increase in mercury over the background levels.
- C: *Dave Conway:* Also, Site C will flush every three or four weeks while the water remains in Williston for two to three years. As well, Williston contained some geological material which contributed to the higher mercury levels and backgrounds levels were higher.
- C: *Merlin Nichols:* With respect to de-commissioned roads my experience is that people that want to go there will go there anywhere and it might be better to keep them maintained and in service so that they can be used by the public.
- A: *Wendy Lannin:* Right and please give us that as written feedback.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – Wendy Lannin

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

There were no comments received.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Hugh Smith

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned

- Q: *Brenda Maisey:* What relevance or assistance would the studies that were done around Williston be?
- A: *Hugh Smith:* Some are relevant and for example at Peace Canyon Dam we have been taking large woody material to add complexity to the reservoir. For Williston, there was no real compensation package at first and we have learned a lot over the last three decades. We would look at applying that knowledge to Site C. Another example is the lake trout and how they are starting to dominate the species. We know that this species is in the head waters of Williston and we have this knowledge and while we

can predict and manage this, it is the organisms that define your final system over time.

Page 24 – Land Use; Agriculture – Hugh Smith

- Q: *Merlin Nichols:* How much of the 2800 hectares is farmed at the present time?
- A: *Hugh Smith:* I can't answer that question at this point but it is being studied and we will have that information at the end of the Phase 2 studies. BC Hydro owns some of the property.
- Q: *Joanne Robert:* How much of that land is still private?
- A: *Dave Conway:* About 40-50% is still in private hands.
- Q: *Brenda Maisey:* Does the ALR¹ still have authority?
- A: *Hugh Smith:* The land would have a classification and we are working on this through our study.

Page 25 – Forestry; Mining and Oil and Oil and Gas – Hugh Smith

There were no comments received.

Page 26 – Potential Land Use Effects

- Q: *Merlin Nichols:* What would trigger a decision to not build Site C? What would you have to find to say that it is not worth it?
- A: *Dave Conway:* It is too early to say – costs maybe.
- Q: *Merlin Nichols:* What about an earthworm that might die?
- A: *Hugh Smith:* With respect to showstoppers, from an environmental viewpoint, that is the reason that we are doing the studies right now and if a species was impacted the government would have to give us a permit and if they did they would have to decide whether or not it was a showstopper. We will be putting together a management plan and we may create wetlands to ensure that the species can exist. We have a ways to go here and at this point in time the process is not far enough along.
- C: *Brenda Maisey:* I may be a bit too idealistic but spending all this money, \$40 million on consultation, when it will be the people that decide whether this is a showstopper or not...
- A: *Dave Conway:* There are many factors that will go forward for consideration to government and it is not one particular thing.
- C: *Facilitator:* The \$40 million is not just consultation. There are many geo-technical studies and other technical studies that are on-going.

¹ Agricultural Land Reserve

Q: *Brenda Maisey*: But if the people in the area said that they didn't want that then the government would have to consider that?

A: *Dave Conway*: That is right.

Page 27 – Information Item – Transmission Lines – Dave Conway

Q: *Merlin Nichols*: Does the transmission line have capacity?

A: *Dave Conway*: At the present time, no new width of corridor would be required although some upgrades may be required.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Dave Conway

There were no comments received.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 2:15 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

CHETWYND MULTI-STAKEHOLDER

October 27, 2008

Notes from a multi-stakeholder meeting held with representatives of the Site C Project Team on October 27, 2008 at the Pomeroy Inn & Suites (5200 North Access Road Chetwynd, BC).

PRESENT: Carolyn Butt, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Wendy Lannin, BC Hydro
Kate O'Neil, BC Hydro
Hugh Smith, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Young Choo, West Wind RV Park
Betty Deck
Donna Ekman, Coffee Talk, Media
Karen Evans, BC Ambulance
Max Fawcett, Realtor, Chetwynd Echo
Jean Hicks
John Kolosky, Jackfish Community Association
Charlie Lasser
Simon Lee, West Wind RV Park
Mitch Loberg, Loberg Construction
Stacey Loberg, Loberg Construction
Mark Meunier, Northern Lights College
Ron Schmidt, Classic Arts
Helen A. Weightman, Chetwynd Chamber of Commerce

The meeting was called to order at 2:45 p.m.

KEY THEMES:

- Participants commented that the construction costs for wind projects (Dokie Wind Farm) are less than the construction costs for Site C.
- Participants suggested that alternative energy options be considered to meet B.C.'s energy needs.
- Participants suggested that the Jackfish Lake Road be pushed through to Site C so that workers from Chetwynd could commute to the dam site.

- Participants requested information on how stakeholders/communities were notified about Round 2 Consultation.

1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders
Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator

Provided a brief overview of consultation methods, materials and the agenda.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. DISCUSSION GUIDE

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bchydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

There were no comments received.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

- Q: *Charlie Lasser:* Why hasn't BC Hydro gone ahead with Meager Creek? Also, what was promised by former Premier WAC Bennett was on-site power and that was a promise made and never kept.
- A: *Dave Conway:* Thank you and both those questions will be addressed as we move through the presentation.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Dave Conway

- Q: *Charlie Lasser:* As you still operating Burrard Thermal? It was the worst run business that BC Hydro ever built and for many years it was never run. I hope that in the future things like that don't happen.
- A: *Dave Conway:* Yes, Burrard Thermal is still operating. It is a thermal operated plant.
- Q: *Jean Hicks:* I see that Site C is cheaper than wind, but for Dokie Wind they were saying \$400 million and it seems cheaper?
- A: *Dave Conway:* I am not sure what they are basing their costs on. We use a levelized unit energy cost. Wind cost is dependent upon how far away it is from the transmission lines, how many turbines there are and how often the wind is blowing but I can't say because I don't know. The Dokie Wind project is much smaller than the proposed Site C.
- Q: *Charlie Lasser:* One comment – is the cost to the Lower Mainland?
- A: *Dave Conway:* That is correct and there is a cost to deliver the energy to the Lower Mainland.

Page 8 – Resource Options Comparison – Dave Conway

There were no comments received.

Page 9 – BC Resource Options Comparison

- C: *Charlie Lasser:* We put an earth bore into Meager Creek and we could blow steam 30-40 feet in the air and we were right into the magma. It was fantastic and I think there is more than 800 megawatts there if it was developed.
- Q: *Helen Weightman:* Site C is not really a true run-of-the-river is it?
- A: *Dave Conway:* That is true and the water depth will be about 150 feet behind the reservoir.
- Q: *Helen Weightman:* I was a bit confused because I thought it was a flow through dam?

- A: *Dave Conway:* The storage is at Williston and Peace Canyon Dams – all the water is upstream from Site C. Run-of-river has no storage and typically we have energy from those facilities in the spring from the snow melts, precipitation etc.
- Q: *Helen Weightman:* Will the area between Peace Canyon and Site C freeze?
- A: *Hugh Smith:* We are modeling that to ascertain if that would be the case, but some of the earlier studies estimate that it will freeze in some of the shallower regions.
- Q: *Helen Weightman:* Will that mean a significant impact on the embankment?
- A: *Wendy Lannin:* There will be protection on the embankment and freezing shouldn't be a problem.
- C: *Dave Conway:* Williston moves (fluctuates) about 40-55 feet, Dinosaur moves about 10 feet a day and the proposed operation of Site C from the studies done in the 1980s are about 6 feet a day although we are looking at that through new studies. If this project went ahead it would have the flattest operation for all of BC Hydro's facilities, but there are impacts on downstream flows.

Page 10 – Map of Peace River Country – Wendy Lannin

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

- Q: *Helen Weightman:* So the public won't be able to use the access roads?
- A: *Dave Conway:* We heard in the pre-consultation that there is a lot of interest regarding access to the bridge. We heard that some of the communities are interested and that some aren't.
- C: *Helen Weightman:* In the earlier consultation, Chetwynd recommended pushing the Jackfish Lake Road through to allow the construction workers

to live in Chetwynd and work on the dam and later to be able to work at the dam.

A: *Dave Conway:* That information was received in Round 1 consultation and this is building on that.

C: *Charlie Lasser:* With respect to the road to Chetwynd, that was looked at in the early 1980's as was use of the dam itself and we know now that the dam will be restricted but you could construct the construction bridge so that the bridge could be used by the public. Chetwynd is closer to Fort St. John than Dawson Creek and there would be tremendous savings.

A: *Dave Conway:* Just to be clear, building of the road, past the construction bridge, is not included in the Site C project cost.

C: *Charlie Lasser:* If you want an easier way this is it because you would be coming straight across.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

Q: *Betty Deck:* How many people participated?

A: *Dave Conway:* That information is on Page 28 of the Discussion Guide. 936 people participated, we received 224 feedback forms, 280 people attended stakeholder meetings and 380 people attended open houses.

Q: *Betty Deck:* What was the overall target?

A: *Dave Conway:* There was no overall target we just wanted to get everyone out.

Q: *Betty Deck:* What is this process?

A: *Facilitator:* There were 23,000 householder mailers sent out, advertisements were placed in local and regional papers, radio advertisements were placed – there was extensive communication. There were 1,700 emails sent out and numerous telephone calls were made. Details on the consultation open houses are listed in the Discussion Guide.

C: *Betty Deck:* I am just curious because I never heard about the first round of consultation and someone from the community phoned me about this meeting. Having a community representative would be a good idea.

A: *Dave Conway:* We do the best we can but we know that we can't reach everyone.

Q: *Charlie Lasser:* Can you do something about the telephone number because it is a recording and I like to talk to a real person. As well, sometimes the date on the recording is up to five days out-of-date.

A: *Dave Conway:* We do check it daily but often it takes longer to get the message to the person that needs to respond.

Q: *Helen Weightman:* What was the target area for the mail-out on the postcards?

- A: *Dave Conway:* It was the Peace Region.
- Q: *Helen Weightman:* Why wasn't Chetwynd included in this round of consultation?
- A: *Dave Conway:* We didn't see the interest in Round 1 and then we heard there was interest and we did include it.
- Q: *John Kolosky:* Why did you have the meeting in the middle of the day when people are working?
- A: *Dave Conway:* Part of the reason is availability of people and there are many ways to provide feedback – all the open houses are being held in the evenings.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Wendy Lannin

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

- Q: *Charlie Lasser:* Are you anticipating a slide like the slide that happened years ago?
- A: *Wendy Lannin:* We do have a number of slides that have been identified on those slopes and we are looking at potential impacts and we know that we will have to monitor and mitigate if necessary. There are some areas where the slope stability will be better.
- C: *Charlie Lasser:* You will have to watch that you don't get a wave.
- A: *Wendy Lannin:* We are looking at that in terms of the impact lines – slope stability, erosion, ground water levels – there are five major impact lines being looked at.

Page 18 – Reservoir Preparation Considerations Table – Wendy Lannin

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead

- C: *Charlie Lasser:* There should be no trouble taking gravel out of the river.
- A: *Wendy Lannin:* It just gets more expensive.
- C: *Charlie Lasser:* No, not with a Shalaman Scrapper and they did that in Washington State on one of the rivers down there and they got lots of gravel.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – Wendy Lannin

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

- Q: *Charlie Lasser:* How far would this dam back up the water on the Moberly?
- A: *Dave Conway:* Approximately 10 kilometers.
- Q: *Charlie Lasser:* Would that hinder the crossing?
- A: *Wendy Lannin:* We are aware of it and are looking at it.
- C: *John Kolosky:* There is a pipeline crossing about 2 kilometers up the Moberly and it won't be affected.
- Q: *Charlie Lasser:* How far do you have to dig the dam down?
- A: *Wendy Lannin:* I don't know but it would be similar to Revelstoke.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Hugh Smith

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned

There were no comments received.

Page 24 – Land Use; Agriculture

There were no comments received.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

- Q: *Charlie Lasser:* Have you looked at the oil and gas under the area where the dam is to be constructed?
- A: *Hugh Smith:* That is an outstanding issue and we are looking at it.
- C: *Charlie Lasser:* There have been earthquakes in the Fort St. John area because so much oil and gas got taken out and this is something to think about.
- A: *Wendy Lannin:* We are taking all that into consideration.
- Q: *Charlie Lasser:* Forestry will need to have access for that bridge with the logging otherwise they will have to go all the way back to Hudson Hope and that is something to think about.

- A: *Hugh Smith:* The reservoir preparation plan will look at that and there is a huge overlap between the reservoir preparation and the environmental management planning and when clearing can occur so as to not impact species, for example, the winter nesting patterns.
- Q: *Charlie Lasser:* I just think that you will get more deer and wildlife because when I cleared my land I got way more deer and they won't do much damage.
- A: *Hugh Smith:* Our concern is also with the smaller animals.

Page 27 – Information Item – Transmission Lines – Dave Conway

There were no comments received.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation

- Q: *Charlie Lasser:* I have asked this before and I will ask again, have you looked at the McGregor Diversion?
- A: *Dave Conway:* It is not in the LTAP¹ nor is it in the capital plan.
- A: *Charlie Lasser:* The McGregor Diversion was a proposal to put in a diversion during flood time on the Fraser River where the water could be kicked back into the Peace River because if it goes into the Fraser River the energy is lost. As well there is a potential, during any year, for the Fraser River to have a devastating flood and if this went in the flood waters could be diverted. I think the McGregor Division should be looked at for flood control and extra power.
- A: *Dave Conway:* With respect to that proposal there was consideration around increased water temperature and also there isn't room in Williston and if we can't take the water then we spill it so the energy is still lost; although, there are times when the water level is low.
- Q: *Charlie Lasser:* What about the Moran Dam? Has it been looked at?
- A: *Dave Conway:* It is not in the LTAP.
- C: *Charlie Lasser:* Moran would be bigger than any dam you have and then there are sites on the Liard (River). On Site E you dropped the flood reserve.
- A: *Dave Conway:* That is correct. The flood reserves have been dropped on the Liard River and Site E.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

¹ Long Term Acquisition Plan

5. Closure

The small group meeting was closed at 4:30 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

TUMBLER RIDGE LOCAL GOVERNMENT

October 27, 2008

Notes from a local government meeting held with representatives of the Site C Project Team on October 27, 2008 at the Tumbler Ridge Council Chambers, Tumbler Ridge, BC

PRESENT: Carolyn Butt, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Wendy Lannin, BC Hydro
Kate O'Neil, BC Hydro
Hugh Smith, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Brenda Holmlund, Councillor, Board-North Central Municipal Association
Kim Isaak, A/Chief Administrative Officer

The meeting was called to order at 6:07 p.m.

KEY THEMES:

- Participants were interested in participating in the clean call for biomass energy using beetle-killed wood from the Tumbler Ridge area.
- Participants noted that major, long-lasting legacy benefits arising from the Site C project are needed in the Peace River region.
- Participants were interested in who would maintain the access roads if these were open to the public after dam construction was completed.

1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders
Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator
Provided a brief overview of consultation methods, materials and the agenda.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says

what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. DISCUSSION GUIDE

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bchydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Dave Conway

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First, Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

- Q: *Brenda Holmlund:* You mentioned the beetle kill wood call; when is that coming?
- A: *Dave Conway:* The call went out to industry last January and then to IPPs¹ that don’t have wood assigned to them. The response to the clean energy call should be known sometime soon.
- Q: *Brenda Holmlund:* To be considered a tenure holder does the community forest count?
- A: *Dave Conway:* You would have to have a TSL (Timber Sales License) then you would qualify.
- C: *Brenda Holmlund:* We don’t have one right now but we are applying for one. What was the size of the call?
- A: *Dave Conway:* I don’t know the size – BC Hydro was interested in seeing the response to the call.
- C: *Brenda Holmlund:* I think we might fit into the 10 megawatts.
- A: *Dave Conway:* It was clean, green projects under 10 megawatts.
- Q: *Brenda Holmlund:* Could you email the information?
- A: *Dave Conway:* The information about the call is on the website, www.bchydro.com

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options – Dave Conway

There were no comments received.

¹ Independent Power Producers

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics

- Q: *Brenda Holmlund:* Has any work been done with creating a trust or have you looked at it or considered something like a Columbia Basin Trust? In meetings with the Regional District it has been brought up. Are you providing any more information on that?
- A: *Dave Conway:* We will look at that on Page 15 when we get there. The Columbia Basin Trust has been looked at for one model and so have some others but at this point we are gathering information. If you think that is the model we should look at then you should include that comment in your feedback form. As well, you can talk to your colleagues on Council and see if they want to make a Council submission.
- C: *Brenda Holmlund:* You realize that recently there have been the two pipeline bombings and we have a big pipeline coming through and this (Site C) is the same because it is a huge project. I know within the Peace River Regional District and the First Nations that this is a big concern and I know that there are different groups that are really against this. What I am saying is that there is a lot of unrest, unsettling, irritation in the whole area and I would suspect that this would lead to more. That irritation, that anger...and while the bombings are misplaced anger, nevertheless the anger is there. People are starting to look and pay attention because even though this is to the north of us, it will still be a major impact on the community. There has to be long-lasting benefits because so much has been taken from the community. Environmentally I am seeing less wildlife and for example grizzly bear sightings are down. I used to see about five grizzly bears a year and now I only see one. We have to have long-lasting benefits to the community.

At this point the participants moved to Page 15 of the Discussion Guide:

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

- Q: *Brenda Holmlund:* I am at a disadvantage here because I am the only one from Council here but what I would say is that is important for low energy costs to come back to the community. Reusing and using up the beetle-kill wood and other wood burn kill. As well, right now we are working on wildfire interface clearing.
- A: *Dave Conway:* We are trying to provide as many opportunities to provide input as possible and in past consultations we heard about the need for

multi-stakeholder meetings but that is not the only way to provide feedback. The Feedback Form can be filled out online or you can send an email, letter, fax or you can drop into the consultation office in Fort St. John.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Dave Conway

There were no comments received.

Page 8 – Resource Options Comparison

There were no comments received.

Page 9 – BC Resource Options Comparison

There were no comments received.

Page 10 – Map of Peace River Country – Wendy Lannin

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E)

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead

- Q: *Kim Isaak:* Who would assume the maintenance of the bridge?
A: *Dave Conway:* As no decision has been made to build Site C that has yet to be determined.
- Q: *Brenda Holmlund:* What are the feelings around Chetwynd?
A: *Dave Conway:* We had two meetings with Chetwynd today and while I don't wish to speak for them, generally they would support the bridge if there was a good access road.
- Q: *Brenda Holmlund:* Once the bridge is built then it generally becomes public access, isn't that right?

- A: *Dave Conway:* We have other areas in the province where we restrict access. For example, within the last two years, we have installed security features at the WAC Bennett Dam and we do restrict access in other locations in the province.
- C: *Brenda Holmlund:* That would cut off a lot of time to get to Fort St. John; I could see it, although I really don't have a feeling about it one way or the other.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Dave Conway

Comments were received earlier.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Wendy Lannin

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling

There were no comments received.

Page 18 – Reservoir Preparation Considerations Table

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead

There were no comments received.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead

- Q: *Brenda Holmlund:* Has anyone asked about fossils? Would they be that far downstream? There were a lot of fossils lost with the original dam.
- A: *Wendy Lannin:* My understanding was that it was too old but I will follow up on that. We will follow up on the shale formations.
- C: *Brenda Holmlund:* This affects us because we have a museum here and we are looking to be a repository.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Hugh Smith

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned

- Q: *Brenda Holmlund:* So for the whole regional area you are collecting this data?
- A: *Hugh Smith:* We have a four kilometer study band centered on the river, a one kilometer band on the right-of-way and the band goes to the Alberta border. We have been ground truthing and currently looking at species use in the areas. We are seeking a full picture/understanding of what is in the area and we are putting a lot of effort into this work.

Page 24 – Land Use; Agriculture

There were no comments received.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

- Q: *Brenda Holmlund:* On the coal, aren't they doing an environmental assessment on one of the projects up there?
- A: *Dave Conway:* Are you speaking of a project north of the WAC Bennett Dam? That is out of our project area.

Page 27 – Information Item – Transmission Lines – Dave Conway

There were no comments received.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Project Definition Consultation, Round 1 Participation

- Q: *Brenda Holmlund:* With respect to the protocol agreement with Treaty 8, is that the one you will use with the other First Nation consultations?
- A: *Dave Conway:* No that is only for Treaty 8 and doesn't include Blueberry or MacLeod First Nations.
- A: *Hugh Smith:* Blueberry First Nation has joined the technical advisory committee process and the McLeod First Nation has indicated that they will join the technical advisory committee process as well.
- Q: *Brenda Holmlund:* With respect to your work dealing with water, will you be looking at groundwater, aquifers, etc?
- A: *Wendy Lannin:* Yes, that is all part of the impact line studies.
- Q: *Brenda Holmlund:* So will the technical study work be made available?

A: *Dave Conway/Hugh Smith:* Yes. The Consultation Summary Report from Round 1 is available as well on the website and the Round 2 Consultation Summary Report will be available when the consultation is completed. The environmental studies, by in large will be completed in the spring and will be available.

Q: *Brenda Holmlund:* Is that the timeline for the studies – water?

A: *Wendy Lannin:* Yes. And we are bringing in the old information and building on it.

A: *Hugh Smith:* We will update the reports and will be looking at the analysis overtime.

Q: *Brenda Holmlund:* What about air quality?

A: *Hugh Smith:* That will be looked at and we will be studying the effects of fogging and erosion and there will be an on-going dust study. Construction impacts shouldn't generate a lot of dust and best management practices will be used. There is a potential for local micro-climate changes and that will be studied. We will be installing seven climate weather stations. We are looking to improve the database information.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 7:50 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

NANAIMO MULTI-STAKEHOLDER MEETING

October 29, 2008

Notes from a multi-stakeholder meeting held with representatives of the Site C Project Team on October 29, 2008 at the Vancouver Island Conference Centre (101 Gordon Street, Nanaimo, BC).

PRESENT: Mike McDonald, Kirk & Co. Consulting Ltd., **Facilitator**
Simon Douglas, BC Hydro
Mina Laudan, BC Hydro
Anré McIntosh, BC Hydro
Michael Savidant, BC Hydro
Kaitlin McFetridge, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Jeremy Baker
Brian Chatwin, Chatwin Engineering
Don Hubbard, VIEA
Marilyn Hutchison, City of Nanaimo
Lee Mason, Nanaimo Chamber of Commerce
Mark McDonald, Business Peace Cariboo Newspaper
Diane Perry, Peace Valley Environment Association
Stewart Ralph, Vancouver Island University

The meeting was called to order at 10:06 a.m.

KEY THEMES:

- A number of participants stated strong support for the development of Site C, with the proviso that the issues discussed are addressed and dealt with fairly.
- Some participants linked Site C to broader goals concerning greenhouse gas emission reductions.
- Participants asked about environmental impacts, such as impacts on arable agricultural land, wetlands and the process of reservoir preparation. It was suggested that BC Hydro work with Ducks Unlimited on mitigation.
- Participants asked about consultation outside of the project definition stage, such as with First Nations and the Province of Alberta. It was suggested that the location of First Nation communities be labelled on the maps in the discussion guide..

- 1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders**
Round table self-introductions were undertaken.

- 2. The Consultation Program – Facilitator**

Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

- 3. DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bchydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Mina Laudan

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes -

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First...Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power

There were no comments received.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C

There were no comments received.

- Q: *Diane Perry*: When you say there will be a long operating life, I understand that dams silt up between 15 and 20 years. What is your interpretation of a long operating life?
- A: *Mike Savidant*: The operating life is expected to be over 100 years. Different dams silt up at different rates, but we wouldn't expect this one to silt up at any time within that term.
- Q: *Diane Perry*: Why would that be?
- A: *Simon Douglas*: Different rivers have different characteristics and how much sediment comes down any one river is very specific to the geology of the region. One thing to keep in mind is that the design of the dam and the intake structures do take into account the amount of sediment that comes down any one river. The intake structures themselves are designed and implemented in such a way that allows for "dead storage" which allows for that sediment to block up behind the dam and will not affect the operation of the dam facilities. So it is incorporated into the design and the 100-year lifetime expects that you will have an allowable amount of sediment which will dam up behind the dam structure itself but it will not impact the operational life of the dam.
- Q: *Diane Perry*: What do you do with the accumulation of this sediment?
- A: *Simon Douglas*: It simply backs up behind the dam. It has no impact on operation in terms of releases that would be required as a regulatory process. The design of the dam itself would ensure that there is no detrimental release of sediment downstream of the facility. It is a common theme in dam design; sedimentation does occur and the potential impacts downstream are mitigated as much as possible.
- Q: *Stewart Ralph*: Has distribution infrastructure been looked at yet? Would it need to be upgraded?
- A: *Mike Savidant*: No, the \$6 billion cost estimate includes transmission up to the point of interconnection at Peace Canyon. Based on some early conversations with BCTC, they say there would be some upgrades to the system required. We aren't talking about new lines; this would be upgrades to the existing infrastructure. That is not considered part of the \$5 billion to \$6.6 billion cost estimate because that is something we would evaluate on a portfolio basis. The type of upgrade you need is not only dependant on whether or not Site C gets built, it also takes into account what else you are building in the system (what other resources are being built in the Peace Region and other places in the North).
- Q: *Stewart Ralph*: Are there life cycle concerns with the current infrastructure that is there or does it have many years ahead of it that could support this?
- A: *Mike Savidant*: That is a question for BCTC which is a separate organization. We do coordinate our plans with BCTC and we do ensure that the transmission systems are reliable because that is important in

terms of getting energy to the customer. While BCTC can give you the details, I'm confident that the transmission infrastructure will be there for quite some time.

- A: *Mina Laudan*: Just to add on that, BC Hydro is a customer of BCTC so we let them know what BC Hydro's plans are and also look at the fact that there are wind power projects that are coming online in the Peace Region. They look at that as a portfolio and they look at the transmission requirements based on everything that is happening in the region.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Mike Savidant

There were no comments received.

Page 8 – Resource Options Comparison – Mike Savidant

There were no comments received.

Page 9 – BC Resource Options Comparison – Mike Savidant

- Q: *Diane Perry*: I thought geothermal was sustainable? What is the problem after 30 years?
- A: *Mike Savidant*: Again, that is basically when your assets have deteriorated to a point where you need to put a lot of reinvestment into the plant. Either your turbines are old and you need to replace the vast majority of the plant or in the case of geothermal, you have exhausted the underground reservoir. What we are talking about here is that in 30 years you will have to replace the vast majority of the plant.
- Q: *Brian Chatwin*: You mentioned that there is a target of 90% clean energy by a certain time. What is the percentage now?
- A: *Mike Savidant*: It is above 90% right now. We are almost entirely hydro in BC. We do have some thermal generation both on Vancouver Island and in the Lower Mainland as well as some smaller stuff up north.
- Q: *Brian Chatwin*: I have a question about the provincial government's Climate Action Plan. They want to see a total reduction of carbon of 33% by 2020. Has that impacted your thought process in any way in terms of demand? Are you delivering less demand? I know you are going to take 50% of your demand up by conservation, but a 33% drop is a pretty dramatic drop.
- A: *Mike Savidant*: That is in terms of carbon emissions and generally our electricity system isn't very carbon intensive. Part of the reason for that 90% clean target is to try to keep our energy system as not carbon intensive. I believe the only way we are looking at the Action Plan, in terms of trying to limit carbon, is potentially in terms of fuel switching. Switching away from gas for energy, to hydro for energy since we aren't as carbon intensive.

- Q: *Brian Chatwin:* Are you talking about electric cars?
- A: *Mike Savidant:* Well electric cars are more extreme, we are looking at it more in terms of heating. Moving from natural gas heating to electric heating.
- Q: *Brian Chatwin:* If there is a large conversion to electric cars, has this been factored into energy demand?
- A: *Mike Savidant:* We are doing studies on that right now. It has not been factored in any significant way but we are examining what that could look like. The thing to make clear is that there is a huge amount of uncertainty there; firstly in the technology and whether or not it will be widely adopted and secondly in terms of when BC starts adopting it. One of the issues is that it takes some time to switch over car production to electric cars. In addition, you could see some regions such as California snap up the majority of the electric cars during the early years because they have more of an incentive. We are looking at what the range of the impact could be depending on how quick the adoption of the electric cars is, but that is for future analysis and it is not included in any significant way in our current action plan.
- Q: *Brian Chatwin:* Is it not part of the Climate Action Plan that we are adopting the California emission standards?
- A: *Mike Savidant:* I don't know the details of the Climate Action Plan so I can't answer that.
- Q: *Stewart Ralph:* You mentioned that we are purchasing power too, is that to meet peak demand?
- A: *Mike Savidant:* Sometimes it is to meet peak demand. There are situations where there is just so much load in BC that we do not have enough generation capability to meet demand and we do have to purchase either from the United States or Alberta. When I talk about being a net purchaser, I'm referring to a yearly average, not those cold days (they are just a part of it). When you look at what we get from our hydro system and other resources, on average over the year, that is less than our net domestic need so we need to buy a specific amount of energy.

Page 10 – Map of Peace River Country

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads – Simon Douglas

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E) – Simon Douglas

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead – Simon Douglas

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead – Simon Douglas

- Q: *Lee Mason:* If you decided that you would allow public access on these roads and bridges, the construction of them would have to change?
- A: *Simon Douglas:* This would be an immediate need for the project for construction as well as to gain access to the powerhouse. The question we have had from the public is whether post-construction, would there be a need for the public to be able to make use of that access road. There are two schools of thought. In the feedback that we have received during the various rounds of consultation, this is a key issue in the region. People have highlighted that there could be regional benefits in the shorter travel times between Fort St. John and the south bank.
- Q: *Marilyn Hutchison:* That was my question also. Would the proposed roads create shorter travel times between communities and First Nation communities?
- A: *Simon Douglas:* Absolutely, but on the flip side to that, there are other people in the region in towns such as Hudson's Hope and Dawson Creek who have highlighted the fact that they could be impacted. Shorter travel times between Fort St. John and the south bank would detract from traffic going through their town. That could probably have an impact in terms of business in those towns. These are issues that are being raised by the public within the region and depending on where you are, there are obviously pros and cons. It is certainly an issue that has been identified as something that people want to talk about and we are examining the possibilities of what that road could look like as a result of those requests. We are asking for the public to provide feedback on whether they think it is beneficial or to provide any other comments.
- C: *Mina Laudan:* To your question Lee, if the road was strictly for BC Hydro access it would be built to a different standard than if it were built to accommodate future public use.
- Q: *Brian Chatwin:* The road to Septimus Siding: is that for the purpose of bringing rail materials for construction?
- A: *Simon Douglas:* There is an existing rail line there. This study will look at tying the road from the south bank into the industrial roads that exist there.
- Q: *Brian Chatwin:* There are existing industrial roads there?
- A: *Simon Douglas:* Yes. On the map on page 14 you can see Jackfish Lake Road is paved from Chetwynd to a certain end portion. You can see that

the road does continue through to (and beyond) what is identified as Septimus Siding. There will be a tie-in point there and there are other industrial roads for forestry and oil and gas in the region. What we have looked at right now are the immediate needs of those three segments of the road that I have identified. If there are requirements to upgrade the industrial roads on the south bank, that would happen at a later stage if the project were to proceed.

- Q: *Brian Chatwin:* Is this an earth filled dam? Where would the material be coming from? Are you transporting any of it by rail?
- A: *Simon Douglas:* Yes, it is an earth filled dam. It is one of the topics we are going to discuss today.
- C: *Mina Laudan:* One thing that I would add is that we have had conversations with the Ministry of Transportation because ultimately any enhancements to the highway system are their decision. They recognise that there is a desire to have this conversation in the community and that we take back input received in consultation to the Ministry and the Ministry would have to consider it in their overall look at the road and highway network.
- C: *Simon Douglas:* We have engaged the Ministry of Transportation at this early stage and got their feedback and their advice in terms of local requirements for road construction in the area. They have been very forthcoming in making information available and going forward we will continue to engage them.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Mina Laudan

There were no comments received.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Simon Douglas

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling – Simon Douglas

- Q: *Don Hubbard:* Will there be a fund set up for wetland mitigation?
- A: *Anre McIntosh:* That is all part of this current scope of work
- Q: *Don Hubbard:* Can we see that?
- A: *Anre McIntosh:* It will be available at the end of stage 2, but not currently.

- Q: *Brian Chatwin:* Has there been a carbon balance study done based on these activities you are going to be doing and the trees that are going to be lost and the amount of carbon input that is going to have to happen at the site? I can see the benefit in that there is going to be 100 years of clean power, and any carbon emissions will seem minuscule, but has that study been done and is it available to people to show that the carbon creation of this project isn't really detrimental in the grand scheme of things?
- A: *Mike Savidant:* The studies are being done right now. There are green house gas studies to evaluate what the long-term emissions could be at the reservoir plus what the emissions would be during construction.
- Q: *Brian Chatwin:* I understand the reasoning behind clearing the reservoir to help eliminate potential green house gas emissions, but if you take that clearing and burn it, aren't you just creating the same carbon that you would have had you left the trees?
- A: *Simon Douglas:* At this point we that identified that if the vegetation were left in the reservoir, in addition to releasing GHGs, they could potentially be a safety issue. There are a number of elements which play into the decisions that ultimately get made.
- A: *Mina Laudan:* The other purpose for removing vegetation is for recreation and safety.
- Q: *Brian Chatwin:* I understand taking the trees out, but are you actually grubbing the area as well (taking the branches and leave out)?
- A: *Simon Douglas:* To a certain extent, yes. If you look back at those two graphics on page 16, you will see that in the majority of the reservoir, the tree stumps have been cut down. They would not be grubbing the entire root system out.
- Q: *Brian Chatwin:* No, but you would be grubbing the branches and leaves and that sort of thing.
- A: *Simon Douglas:* Certainly. It would be impossible to get all of it but we would take the majority of it out. Should the project proceed, post-construction BC Hydro would have an active management plan in terms of debris management. Any debris that comes to surface would be taken care of.
- C: *Mina Laudan:* Further to your question Don, on wetlands, there is a man on the project team named Hugh Smith who has an active interest in that subject and has been looking at it a lot. I know he has done some work with the Land Conservancy Trust. They are looking at particular areas along the reservoir to see if they could create new wetlands. No decisions have been made, it is still an area of study but I know it is something that Hugh brings up a lot as something to look at. I think part of the reason it is

not being looked at right now is that a lot of the environment work is baseline and it will be looked at more closely in future stages.

- C: *Simon Douglas*: That potential exists. We discussed Highway relocation in Round 1 of consultation and there is a potential to create wetlands at some of those areas. We recognize that this is something that people are interested in.
- A: *Anre McIntosh*: One of the areas we are looking at is the existing Watson Slough. There may be opportunities to do something behind that area.
- Q: *Don Hubbard*: Won't Watson Slough be underwater?
- A: *Anre McIntosh*: It would be but there is potential to do something behind it. Right now we are in a conceptual process.
- C: *Don Hubbard*: There is a good relationship between Ducks Unlimited and BC Hydro so if they include them in the studies, I'm sure they have a lot of the information already.

Page 19 – Impact on Resources; Looking Ahead – Simon Douglas

There were no comments received.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – Simon Douglas

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead – Simon Douglas

- Q: *Brian Chatwin*: I think you guys have done a fantastic job here and I am a strong supporter of this. It is projects like this that are going to be very progressive in helping us fight global warming and carbon emissions. This clean energy source will help reduce that by taking fossil fuels out of our system, so I am a very strong supporter. My question is: when they built WAC Bennett dam, they had some serious problems with the dam (about 10 years ago). What lessons did we learn from that and what are we doing differently for this dam to ensure that situation does not reoccur?
- A: *Mike Savidant*: WAC Bennett dam was built in the late 1960s to early 1970s. I think what you are referring to is the sinkhole that developed at WAC Bennett about 10 years ago. Basically a pipe was left in the dam which created some sediment movement. The main thing we have learned is the requirement for monitoring to make sure that if anything like that does begin to develop, we will know about it right away so we can adapt to it and do something to help mitigate that issue. I know specifically at WAC Bennett we have an extensive monitoring program to make sure there are no other surprises. In addition, we have learned that we need to monitor construction much more closely.
- C: *Brian Chatwin*: Bigger engineering expenditure?

- A: *Simon Douglas:* In projects of this magnitude, you do as much detailed investigation as you can to understand geotechnical requirements of the project and you design accordingly. As Mike said, ultimately the design – as it is implemented – is only as good as its construction. There are requirements for direct supervision and a presence on site that can implement an active quality assurance and management plan.
- Q: *Don Hubbard:* What was the remedy?
- A: *Mike Savidant:* The immediate remedy was to draw Williston Reservoir down below the sinkhole. We spilled a lot of water.
- A: *Simon Douglas:* They did significant grouting to prevent the piping from progressing further. A lot of concrete was pumped into that void. I'm not familiar with the exact details but they ultimately plugged the hole.
- C: *Mark McDonald:* I think it is a great presentation. I have a newspaper that covers that area and I do support the project for several reasons. The river is already dammed, and it doesn't matter how we generate power, there is going to be some environmental impact. There was recently a story in the Alaska Highway News about bats that have been found dead at the foot of wind generating stations. I think for people that look at Hydro or mega projects such as negative, I think this is going to produce the least amount of environmental impact in the region because the river has already been dammed. Whether it be tidal or wind power, there is always going to be some impact. I think this is a well thought out project and I support it.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Anre McIntosh

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned – Anre McIntosh

There were no comments received.

Page 24 – Land Use; Agriculture - Anre McIntosh

There were no comments received.

Page 25 – Forestry; Mining and Oil and Oil and Gas - Anre McIntosh

There were no comments received.

Page 26 – Potential Land Use Effects

- Q: *Don Hubbard:* As we move from phase 2, to stage 3 I would like to see some information about how much habitat is going to be lost.
- A: *Anre McIntosh:* That will all be a part of the Stage 2 Report. At the end of this stage there will be a Stage 2 Report and that report will be made public.

- A: *Mina Laudan:* I would also add that on our website there are a number of historical reports that are on some of the topics you are talking about. There are some studies underway that are not yet complete but once they are complete they will also be on the website. There were studies done in the 1989 to 1991 period as well as prior to that, so on the Site C website there is a link to about 4000 documents from the BC Utility Commission hearings in 1982, some of which are regarding land use. If there is something specific you are looking for, we could look into that.
- C: *Don Hubbard:* I will look on the website.
- A: *Anre McIntosh:* Another thing I will point out is that as project design is refined, footprints and access roads and the amount of affected area will change. Until the project design is finalized, we won't know the footprint and we won't be able to calculate project impact completely, although we will have a very good idea. We will only be able to produce the final numbers after a certain stage.
- Q: *Diane Perry:* You did mention that there will be arable land flooded, but you didn't mention that it is the only class 1 land north of Quesnel. Therefore it is very important arable land.
- A: *Anre McIntosh:* Yes, that is true.
- C: *Anre McIntosh:* I will just add that the 1982 numbers indicate there are between 100 and 200 hectares of Class 1 arable land present in the potential reservoir.
- Q: *Marilyn Hutchison:* Has the pine beetle issue extended as far as the land proposed for this project?
- A: *Anre McIntosh:* A lot of the land is deciduous and mixed, so I don't think there is a lot of pine beetle. They have affected the surrounding area though, but in the valley itself there is not a lot of pine.
- Q: *Marilyn Hutchison:* I'm just thinking in terms of the land that will be flooded: if it is not impacted by the pine beetle, you are giving up land that is good land, because we are losing a lot of good forested land in the interior of BC due to the pine beetle.
- A: *Anre McIntosh:* With the excepting of the river islands, a lot of the forest is deciduous. There is a lot of seral forest up there (cottonwood, poplar, aspen). It is all being mapped out. As part of our program we have done ecosystem mapping for the Ministry of Forest site series. Part of our analysis will be how many hectares of each site series will be in our footprint and then how many are going to be impacted.
- Q: *Don Hubbard:* What is the definition on class 1 land?
- A: *Anre McIntosh:* I will have to get back to you on that, I don't have it on hand.

- A: *Diane Perry*: It has the highest land capability. They class the land according to how productive it could be under optimal conditions.
- A: *Mina Laudan*: That is the Agricultural Land Commission's definition. They have a classification system about the most optimal, and then going down.

Page 27 – Information Item – Transmission Lines

There were no comments received.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation

- Q: *Don Hubbard*: How much of the land is actually owned by BC Hydro?
- A: *Mina Laudan*: A lot of the land is owned by BC Hydro.
- A: *Mike Savidant*: 50% of the land is Crown and of the non-Crown land, BC Hydro owns half of that. So, about 75% in total.
- Q: *Don Hubbard*: So there are leases on most of the property?
- A: *Mike Savidant*: I don't know about most, but there are leases on several of the BC Hydro properties.
- Q: *Brian Chatwin*: Mina, from your original consultations with the First Nations, what is their general position at this point?
- A: *Mina Laudan*: We are actually earlier in consultations with First Nations than we are with public consultations. I spoke about pre-consultation and that is the point we are at with First Nations now. We are still negotiating consultation protocol agreements that will outline how we will consult. We haven't concluded many of those agreements, particularly with Treaty 8, who is the most directly impacted. Overall, all of the potentially impacted First Nations that we have gone to have engaged with us. Publicly, some have taken very stated positions against the project.
- Q: *Brian Chatwin*: Do you have a strategy if the First Nations' consultation program reaches a deadlock and you can't come to an agreement on this? Obviously then the project will face court challenges. Do you have a strategy if you run into this sort of situation?
- A: *Mina Laudan*: Not right now. We are still at an early stage at this point in reaching out to people who will be directly impacted. Historically we have not had a lot of experience in reaching out on this topic. Right now, everyone we have sent a letter to and engaged with is meeting with us and we are still building relationships and setting up how we are going to consult going forward. It has been going fairly well.
- Q: *Brian Chatwin*: I can understand the consultation program and I can understand them taking a strong position against the project. In other project throughout our province, there have been solutions to those

deadlocks by involving them as economic partners. Would BC Hydro consider involving the First Nations as an economic partner in the development of this project?

A: *Mina Laudan:* That is definitely something that has been raised and there was actually just an agreement that was signed last week with the Quadatcha (who were impacted by the creation of the Williston Reservoir and the Bennett dam) between BC Hydro and the Province. There was just an agreement reached settling that historic issue and part of that agreement is the Quadatcha's participation in the current work required by BC Hydro at the Bennett dam.

Q: *Don Hubbard:* So we can fill it in and mail it to this address?

A: *Mina Laudan:* Yes, you can mail it, fax it or fill it online.

Q: *Marilyn Hutchison:* Are these consultations occurring in Alberta as well for Government as well as the residents?

A: *Mina Laudan:* The Energy Plan and the direction around Site C asked BC Hydro to consult the First Nations communities and the Province of Alberta. Subsequently, the Ministry has told us to hold consultation with the Northwest Territories. There has been an initial meeting and the Province is leading those consultations with BC Hydro as a participant. There have been initial meetings between the Province, BC Hydro and the corresponding Ministries in Alberta and the Northwest Territories. I suspect that there will be subsequent meetings. With respect of the First Nation consultation, the First Nations group for the Site C team has been engaging with the First Nations in Alberta. Part of Treaty 8 in Alberta as well as BC, it is looking at the Peace River around the Sleigh Delta and the Peace Athabasca. There is consultation. For the respect with other Alberta residents, BC Hydro meets regularly with the town of Peace River relating to flooding and other issues.

Q: *Marilyn Hutchison:* I didn't see aboriginal communities on this map. Is there any plan to show any of aboriginal communities on the maps?

A: *Mina Laudan:* There is a map that the First Nations' consultation uses. It is not in this guide. So, that point is important.

Q: *Marilyn Hutchison:* Could that be included?

A: *Mina Laudan:* I think that is a good point. Thank you.

Q: *Marilyn Hutchison:* Obviously BC residents and businesses will be the customer once this project is complete, are there plans to increase the provision of power to Alberta, the Northwest Territories and the US?

A: *Mina Laudan:* Only after British Columbia meets its energy needs. The mandate that we have been given by the provincial government is to become energy self-sufficient with BC. At the time, we are not. Seven out the last ten years, we have had to import energy. If Site C were to go ahead at the current schedule at the earliest that we would see Energy coming online is around 2019. By 2016 is the mandate to be self-

sufficient. By 2026, there is also an Energy Plan mandate to have insurance which means even if we are in a low water year that we still have enough energy to be meet our needs and to have insurance. Site C could potentially help meet that. We are really looking at meeting our own needs.

- C: *Marilyn Hutchison*: I think the economic impact needs to be addressed. I understand why Hudson's Hope and other communities are concerned for this especially in regards to the highway relocation. It would be a significant impact to small businesses and entrepreneurs. The economic impact needs to be addressed now before it is passed and not at the end. As well how it effects Treaty negotiations and the First Nations' economics.
- C: *Mina Laudan*: It is a key reason why we put the bridge discussion in this round of consultation. It is one of the highest interests of topic within the communities. At this point, there are people on evenly on both sides, and we want to obtain as much input as possible on it.
- Q: *Diane Perry*: If Powerex stops exporting power to the United States, would we then not be self-sufficient?
- A: *Mike Savidant*: No. What Powerex does is buy and sell on an occasion in order to make trade income but over a year basis we have specific amount of resources we have from our Hydro facility and we have our load. What Powerex does is, they buy and sell but it evens out. So they buy as much as they sell. We're planning towards the net difference between our resources and our load. Powerex's activity does not affect that at all. If you look at BC Hydro consolidated system, we buy more than what we sell by this specific amount that we identify as our planning gap.
- C: *Don Hubbard*: I'm impressed with the studies so far and I'm on terms of our provincial carbon footprint goals. If we don't build this project, we will be buy coal generated power. I am a strong supporter of this.
- C: *Diane Perry*: The Peace Valley Environmental Association wanted you to know that they do not want Class 1 land flooded and they would like food to be grown locally.

Closing remarks:

Facilitator: We would like to thank you for coming. Please fill out your feedback forms and submit them. There were close to 200 feedback forms submitted in the last round of consultation. We encourage as many people as possible to participate. Thank you.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

5. Closure

The small group meeting was closed at 11:59 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

FORT NELSON LOCAL GOVERNMENT MEETING

November 4, 2008

Notes from a Local Government meeting held with representatives of the Site C Project Team on November 4, 2008 at the Woodlands Inn (3995 50 Avenue South, Fort Nelson, BC).

PRESENT: Carolyn Butt, Kirk & Co. Consulting Ltd., **Facilitator**
Wendy Lannin, BC Hydro
Mina Laudan, BC Hydro
Anré McIntosh, BC Hydro
Kaitlin McFetridge, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Jackie Allen, NRRD/Town of Fort Nelson
Randy McLean, NRRD/Town of Fort Nelson
Karen Unruh, NRRD/Town of Fort Nelson

The meeting was called to order at 12:42 p.m.

KEY THEMES:

- Participants were interested in how energy costs in the table on page 8 of the Round 2 Discussion Guide and Feedback Form were calculated.
- Participants expressed interest in a reservoir-clearing program that would reduce boating accidents.
- Participants would like to know what the concerns of Fort St. John residents are regarding the proposed Site C project.

1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders
Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator
Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project

website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

3. **DISCUSSION GUIDE**

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Q: *Karen Unruh:* What has the turn out been for most of the stakeholder meetings?

A: *Facilitator:* There has been a real variety. There has been anywhere from 2-40. To give you an example, last week we were in Tumbler Ridge and Chetwynd. In Chetwynd we had an afternoon stakeholder meeting where we had about 15 people out and we had a local government meeting in Tumbler Ridge where only a couple of people were able to attend. To date, we have had more stakeholder participation in this round than in the previous round. I think a lot of people are submitting their feedback forms online as well. There is a summary of participation from the last round of consultation in the back of the discussion guide. The entire Project Definition Consultation, Round 1 summary report is also available online.

A: *Mina Laudan:* The only other thing I would add in terms of attendance is we have stakeholder meetings first and then open houses in November. Open houses have a wide range of attendance. There have been some communities with a smaller turnout and some where we have had close to 90 people. We have also made sure to meet with each local government in every community in which we hold a meeting or an open house.

Page 1 – Site C Background – Mina Laudan

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes – Mina Laudan

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First...Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power – Mina Laudan

Q: *Karen Unruh:* How do you get one of those smart meters?

A: *Mina Laudan:* It is actually mandated in the Energy Plan that BC Hydro will move to Smart Meters by 2012. It is a significant capital project that BC Hydro is undertaking and it means upgrades to the whole distribution grid as well. They will also support reliability because we will know when and where outages are and we can get power back online faster.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options – Mina Laudan

There were no comments received.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C – Mina Laudan

There were no comments received.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics – Mina Laudan

There were no comments received.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Mina Laudan

There were no comments received.

**Page 8 – Resource Options Comparison – Mina Laudan
Page 9 – BC Resource Options Comparison – Mina Laudan**

C: *Randy McLean:* So far this seems to be a review of stuff we have already seen.

A: *Mina Laudan:* Yes, what is new this time is the inclusion of the cost.

C: *Karen Unruh:* There is such a variation in the costs, from \$47.00 to \$109.00 per GWh.

A: *Mina Laudan:* Yes, and that is why some of these options are not commercially viable. They are cost prohibitive.

Q: *Jackie Allen:* Why do you have such a large spread within options? With biomass for example, it ranges from \$44.00 to \$224.00. Can it get any closer or does it depend on production?

A: *Mina Laudan:* The costs are developed based on a history of what kind of projects have bid into BC Hydro and also in discussions with the industries that would develop those resources. It is also dependant on where those resources are, how much it costs to bring it to where the power is needed and there tends to be a range depending on the project. If you look at page 7, it is interesting to see the cost plotted out on a chart. A lot of these other projects such as biomass, wind, geothermal will bid in during the clean call, and it is a competitive bidding process. It looks at

how much firm energy they can provide, how much intermittent energy, how much capacity and at what cost and where they are located.

Page 10 – Map of Peace River Country – Wendy Lannin

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads – Wendy Lannin

There were no comments received.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E) – Wendy Lannin

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead – Wendy Lannin

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead – Wendy Lannin

- Q: *Jackie Allen:* I'm just trying to see where the road is currently on the map. It isn't really showing up.
- A: *Wendy Lannin:* You can see it near Hudson's Hope, then it goes off the map and then it shows up on the north side of Moberly Lake and then into Chetwynd. People are forecasting that it would take about 45 minutes off the drive.
- A: *Mina Laudan:* It shows up as the darker grey on the map.
- A: *Wendy Lannin:* Again, this is something that is not presently in the scope of the project and we are just seeking feedback as to whether we should expand and include it [public access] in the scope of the project.
- C: *Mina Laudan:* The difference for BC Hydro is that if the bridge were built for public access, it would need to be built to a different standard. Ultimately, it would be a decision for the Province to undertake. We have been in talks with the Ministry of Transportation and they know it is an important topic. They will take the feedback we collect in for consideration.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Mina Laudan

There were no comments received.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Wendy Lannin

- Q: *Karen Unruh:* One of the complaints I have heard about Williston is that the logs and stumps have caused boating accidents. Even if you leave the stumps, will they not at some point surface?
- A: *Wendy Lannin:* We have reservoirs in the system that are 80 years old and the stumps are still there. Maybe in time they will surface, but there will be reservoir debris management programs in place.
- Q: *Karen Unruh:* So, was that not done with Williston?
- A: *Mina Laudan:* That is exactly the issue. There was no reservoir preparation or management program prior. It was actually just flooded.
- A: *Wendy Lannin:* Williston is a massive reservoir and they just couldn't keep up with the timeline to get the material out; it was longer than the timeline to do the project. They tried!
- C: *Karen Unruh:* But it is coming back to bite them.
- A: *Wendy Lannin:* Yes, hence the reason why it is such a topic of interest and also why we are looking at this very early in planning. Also, things have changed since Williston was built; the knowledge has changed. Green house gases were not even a concern then as they are now.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling – Wendy Lannin

There were no comments received.

Page 18 – Reservoir Preparation Considerations Table – Wendy Lannin

There were no comments received.

Page 19 – Impact on Resources; Looking Ahead – Wendy Lannin

- Q: *Karen Unruh:* On page 19 where it shows the potential Site C location, will that be totally flooded? What does that picture show?
- A: *Wendy Lannin:* It shows the north abutments of the dam. It is there to give people some perspective of what the actual river valley looks like more than anything.
- A: *Mina Laudan:* That abutment is about 180 metres high and the proposed dam would be 60 metre high, about 1/3 of the height. I know it is hard to judge the scale from this photo.

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – Wendy Lannin

There were no comments received.

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead – Wendy Lannin

There were no comments received.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Anré' McIntosh

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned – Wendy Lannin

Q: *Jackie Allen:* Who is conducting the studies?

A: *Anré McIntosh:* The wildlife studies are being done by Keystone Wildlife Research, the fisheries studies are being done by AMEC and Mainstream, the socio-economic is being done by Lionsgate, the atmospheric and climate are being done by RWDI, and Hayco is doing the water temperature modelling.

Q: *Jackie Allen:* Was that through a request for proposals?

A: *Anré McIntosh:* They are all RFPs. Some of them originate back to 2005 and the work is just continuing and some of them have just been awarded.

Q: *Jackie Allen:* An area that there has not had much emphasis and I do see that it was eluded to here on the first paragraph on page 22, is the transmission line corridor.

A: *Anré McIntosh:* If you go to page 27 of the discussion guide, we can review that now.

Page 24 – Land Use; Agriculture – Anré McIntosh

There were no comments received.

Page 25 – Forestry; Mining and Oil and Oil and Gas

There were no comments received.

Page 26 – Potential Land Use Effects

There were no comments received.

Page 27 – Information Item – Transmission Lines – Anré McIntosh

Q: *Jackie Allen:* What area will the studies include?

A: *Anré McIntosh:* 500 metres from the centre of each transmission line. It is a 1 kilometre swath along the transmission line.

- Q: *Jackie Allen:* Is there enough infrastructure beyond that to distribute the new power?
- A: *Mina Laudan:* This power line would be required to take the power from Site C to Peace Canyon dam. The way the BC Hydro energy planning process works is that it doesn't look at just one project. It looks at bundles of projects and the transmission requirements for those projects. For example, the Peace region is a bundle with potentially Site C and the potential wind projects. BC Hydro works with BCTC who run the transmission system and they look at what transmission requirements would be needed.
- Q: *Jackie Allen:* Is BCTC participating? Where does that information get brought forward?
- A: *Mina Laudan:* In the most recent LTAP, there were new bundles that were created around the province. That information has been given to BCTC and they require approximately a 10-year time frame to plan for transmission requirements. I don't know when they report out, but I do know that they have our needs and they have started to build their 10-year and 20-year plans.
- A: *Anré McIntosh:* That upgrade is not within the scope of the Site C project.
- A: *Mina Laudan:* The Site C cost estimate includes the cost of transmission from Site C to Peace Canyon. Any other transmission requirements are outside of the scope of the project
- Q: *Jackie Allen:* So is it an unknown in regards to how disruptive some of the requirements may need to be, or if you will see more power coming north rather than south?
- A: *Mina Laudan:* The initial plan was for upgrades. We could find out when the next update will be available from BCTC on what the transmission requirements are for BC Hydro as a whole. They are required to file their plans with the Utilities Commission and I know there is a schedule around it, I'm just not sure what that is.
- Q: *Jackie Allen:* But it looks like just upgrades at this point?
- A: *Mina Laudan:* Yes.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Mina Laudan

There were no comments received

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

- C: *Randy McLean:* I think you have quite an extensive consultation process, especially as far as we're concerned. This far north, we seem to be getting lots of information and opportunities to provide feedback, so it is good to have that opportunity.
- C: *Karen Unruh:* I would like to attend one of the meetings in Fort St. John, just to hear some of their comments. Really, we get a positive spin here.
- A: *Facilitator:* There is an open house on November 24 in Fort St. John if you are able to make it. But, if you can't make it, the meeting notes are included in the summary report and you can look at the individual stakeholder meetings to see what was said.
- C: *Karen Unruh:* I think you have had a couple of demonstrations at your meetings.
- A: *Facilitator:* We have. They have been very respectful.
- Q: *Karen Unruh:* How many people is it impacting, agriculture-wise? Is it a lot?
- A: *Anré McIntosh:* 100-200 hectares of class 1 land and 2800 hectares of class 2 and 3 land.
- A: *Mina Laudan:* Some of the work being done in stage 2 right now is updating the land use inventory and look at the floodline and the safeline and the highway realignment. If we look back at the data from 1979, it will affect approximately 44 families and some of the families own multiple pieces of property. About 100 properties would be impacted along the 83km reservoir.
- C: *Anré McIntosh:* Something else that has changed is that historically there was one safeline and now, as part of the engineering that was talked about in round 1, there are going to be various impact lines. Depending on what the impact line is, the land may still be arable even though the owner may not be able to put a well or a house in. Those numbers will change as we get more details from the studies.
- C: *Mina Laudan:* Back to Karen's point regarding attending the Fort St. John meetings, the minutes are available online which is good because it allows people to see what others are saying around the province. We are trying to provide that information to anyone who wants to see it.

5. Closure

The small group meeting was closed at 2:04 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

FORT NELSON MULTI-STAKEHOLDER MEETING

November 4, 2008

Notes from a multi-stakeholder meeting held with representatives of the Site C Project Team on November 4, 2008 at the Woodlands Inn (3995 50 Avenue South, Fort Nelson, BC).

PRESENT: Carolyn Butt, Kirk & Co. Consulting Ltd., **Facilitator**
Wendy Lannin, BC Hydro
Mina Laudan, BC Hydro
Anré McIntosh, BC Hydro
Kaitlin McFetridge, Kirk & Co. Consulting Ltd. Recorder

STAKEHOLDERS: Mavis Brown
Margaret-Anne Hall, School District 81
Claude Normandeau, Fort Nelson Chamber of Commerce

The meeting was called to order at 3:11 p.m.

KEY THEMES:

- Participants commented that the Site C project should have been built in the 1980s.
- Participants suggested that industry would demand use of the powerhouse access bridge.
- Participants questioned what other large hydro projects might be considered in 20 to 50 years.

1. Welcome and Introduction of the BC Hydro Project Team and Stakeholders
Round table self-introductions were undertaken.

2. The Consultation Program – Facilitator
Provided a brief overview of consultation methods, materials and the agenda and noted that time will set aside before the end of the meeting to allow participants time to complete the Feedback Form.

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project

website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

The Facilitator briefly reviewed the Discussion Guide.

Q: *Claude Normandeau:* Have any of you been with the project since the 1980s when the dam was proposed?

A: *Mina Laudan:* None of us here have been with the project for that long, but there are some people on our team that have that type of history. In particular, one of the members of our engineering team and somebody involved on the legal/regulatory side, having been involved in the BC Utilities Commission at the time.

A: *Anré McIntosh:* Also, some of the wildlife consultants started doing work in the 1990s.

3. DISCUSSION GUIDE

The record notes that the foregoing was intended as a guide to the titles of the material covered in the Discussion Guide - for the complete review of the material please refer to the Discussion Guide available at www.bcyhydro.com/sitec The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Page 1 – Site C Background – Mina Laudan

There were no comments received.

Page 2 – Environmental Assessment and Other Regulatory Processes – Mina Laudan

There were no comments received.

Page 3 – British Columbia’s Energy Needs are Growing; Conservation First...Power Smart and Energy Efficiency; Buying Renewable Energy; Reinvesting in Hydro Assets; and Exploring Additional Sources of Power – Mina Laudan

Q: *Claude Normandeau:* Did you say 15% of B.C.’s electricity needs will be met through conservation?

A: *Mina Laudan:* No, a minimum of 50% of need will be met through conservation actually.

Page 4 – Site C Overview; Site C Dam Design; New Approach; and Energy Options – Mina Laudan

Q: *Claude Normandeau:* What does that [the reservoir] do to Hudson’s Hope? Does it affect the town?

- A: *Mina Laudan:* There would be impacts from Fort St. John up to Hudson's Hope.
- Q: *Claude Normandeau:* The town itself?
- A: *Mina Laudan:* Portions of it. The river would widen 2-3 times on average due to flooding depending on where you are. Some of the flatter areas such as Bear Flats would experience a greater degree of flooding for example, whereas the canyons would have less.
- Q: *Claude Normandeau:* Would Old Fort be flooded?
- A: *Mina Laudan:* No, Old Fort is downstream of the dam. There is very little downstream impact. Immediately downstream you would see more attenuation, but down further there would be very little impact.
- Q: *Claude Normandeau:* So you are basically flooding to the Peace Canyon Dam?
- A: *Mina Laudan:* That's right.
- A: *Anré McIntosh:* The increase in volume of the reservoir will not affect the efficiency of the Peace Canyon Dam.
- A: *Wendy Lannin:* In Hudson's Hope for example, the raise in water level is only 2-3 metres. In the town itself, there is not much impact.
- A: *Mina Laudan:* It is designed as a 24-hour reservoir. Over a 24-hour period, the amount of water that goes through one side would be about the same amount of water that comes out the other side. Unlike Williston, which is a large storage reservoir.
- Q: *Claude Normandeau:* What does that do to the fish when you are purging the water? If it were a 24-hour reservoir, wouldn't there be a lot of fluctuation?
- A: *Anré McIntosh:* The downstream output of Site C, if it were built, would not be appreciably different than it is now. One potential impact on fish is entrainment, where fish are sucked into the intake and through the turbines and popped out. There are also passage issues related to migrating species. In terms of the reservoir, it will be changing from a river environment to a lake environment, so there will be a change in fish populations. All of this is being looked at now as part of the fisheries baseline studies.
- Q: *Claude Normandeau:* Since the dams have been built, there is great fishing there. There are big dollys and rainbow trout. I was wondering if the reservoir would go from a flood state, to dry.
- A: *Anré McIntosh:* Under the water license there is a minimum downstream output required from Peace Canyon dam to maintain fisheries. I think that would be maintained under the new water licence for Site C.
- A: *Mina Laudan:* Site C is proposed to be a relatively stable reservoir. Peace Canyon has a higher degree of fluctuation of about 9 metres. For Site C, it is anticipated to be plus or minus 3 feet, so it is actually a relatively flat reservoir.
- Q: *Claude Normandeau:* BC Hydro would finance this project, meaning the Province itself? It's not a public-private partnership?

A: *Mina Laudan:* The Province has made a commitment. This would be an asset owned by BC Hydro. In terms of how it would be constructed, financed and procured, no decision has been made about that at all.

Page 5 – Potential Impacts of Site C and Potential Benefits of Site C – Mina Laudan

Q: *Claude Normandeau:* Old timers in Fort St. John say there was very little wind before Bennett Dam was built.

A: *Mina Laudan:* Interesting. I have heard fog and climate, but I have never heard wind. Have you heard that Anré?

A: *Anré McIntosh:* I have never heard that before.

C: *Claude Normandeau:* Talk to the old-timers.

C: *Mina Laudan:* They come out to a lot of our meetings.

A: *Anré McIntosh:* I know that as part of the engineering work, they are looking at wind at certain peak points of the reservoir with regard to erosion. But other than that, I have never heard anything about increased wind. It is very interesting.

Page 6 – Project Definition Consultation, Round 2 October 1 – November 30, 2008; Consultation Topics – Mina Laudan

There were no comments received.

Page 7 – Site C as an Energy Option; Electricity Planning – 2008 Long-Term Acquisition Plan; Looking Ahead – Mina Laudan

There were no comments received.

Page 8 – Resource Options Comparison – Mina Laudan

C: *Claude Normandeau:* The costs [of solar energy] are starting to come down here, but they are still quite high.

Page 9 – BC Resource Options Comparison – Mina Laudan

Q: *Claude Normandeau:* Who could speak on geothermal?

A: *Wendy Lannin:* I don't know very much about that project. There is a project at Meagre Creek that is on the books, but I'm not sure.

Q: *Claude Normandeau:* Harrison Lake, years ago, had plans for geothermal. What ever happened with that? Was it brought online?

A: *Mina Laudan:* I don't know about that specific project.

Q: *Claude Normandeau:* I wonder why they don't tap into it up here?

A: *Mina Laudan:* We could have someone from our energy planning group get back to you if you'd like. They are the ones who know about specific

sources of energy and where they are in the province in terms of where the potential is.

- C: *Claude Normandeau:* The other thing there is if you involve parks, it could impact the hot springs and that would affect tourism.
- C: *Mina Laudan:* Yes, some of the impacts associated with geothermal are on page 9 of the discussion guide.
- A: *Wendy Lannin:* My understanding is that the initial investigations are quite expensive and have been off-putting for a lot of independent power producers.

Page 10 – Map of Peace River Country – Wendy Lannin

There were no comments received.

Page 11 – Powerhouse Access Bridge and Associated Access Roads – Wendy Lannin

- Q: *Claude Normandeau:* Why wouldn't they use the dam as a roadway? Is it a security issue?
- A: *Wendy Lannin:* It is a security issue and also the banks, particularly on the north side of the river are very steep and there is no intention to make those highway or public access designed facilities.

Page 12 – North Bank Access Road (5 km) (A to B); Powerhouse Access Bridge (450 m) (B to C); Powerhouse Access Road (C to D) and Railhead Access Road to Septimus Siding (8 km) (D to E) – Wendy Lannin

There were no comments received.

Page 13 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead – Wendy Lannin

There were no comments received.

Page 14 – Public Feedback Sought Regarding Potential Public Use of the Powerhouse Access Bridge; Looking Ahead – Wendy Lannin

- C: *Claude Normandeau:* I think industry is going to demand use of the bridge. I used to work there and we had to take helicopters to get across there or we would have to go through Dawson Creek to access that area. There are a lot of wells there and I think the demand will be there.
- A: *Wendy Lannin:* We have been doing work there for the engineering studies, and we were told that it is a road that you can't access or only in the winter time, and now you can drive a car on it. So that road it getting strengthened.
- C: *Claude Normandeau:* There is beautiful farmland down there as well. People would naturally go down there to start a farm I think.

- C: *Wendy Lannin*: This is a significant topic that is coming out of public consultation and it is one that we need to explore further going forward.
- Q: *Claude Normandeau*: Before I forget, I see that you will be downstream of the Moberly. How far up will the Moberly be flooded?
- A: *Wendy Lannin*: 10 kilometres.
- C: *Claude Normandeau*: Oh, that far? The Moberly is a canoe haven.

Page 15 – Provincial and Community Benefits – Other Potential Infrastructure Improvements; Community Benefits; Round 1 Consultation Results – Mina Laudan

- C: *Clause Normandeau*: You will hear a lot of low emission energy, and people want that, but the moment people have to pay for it, it becomes less desirable. That is my opinion.
- C: *Mina Laudan*: It is impending when you are associating all the different trade offs with emissions and costs and impacts. You have to look at the whole picture.

Page 16 – Reservoir Preparation Consideration; Clearing of Timber and Vegetation – Wendy Lannin

There were no comments received.

Page 17 – Reservoir Preparation Consideration; Waste Vegetation Disposal; Shoreline Stabilization and Habitat Creation; and Access and Scheduling – Wendy Lannin

- Q: *Claude Normandeau*: Is it marketable timber?
- A: *Wendy Lannin*: No, I am referring to the unmarketable timber.

Page 18 – Reservoir Preparation Considerations Table – Wendy Lannin

There were no comments received

Page 19 – Impact on Resources; Looking Ahead – Wendy Lannin

There were no comments received

Page 20 – Sourcing Dam Construction Materials, and Relocation and Reclamation of Excavated Soil and Rock – Wendy Lannin

There were no comments received

Page 21 – Relocation and Reclamation of Excavated Soil and Rock; Looking Ahead – Wendy Lannin

- Q: *Claude Normandeau*: What will you be disposing of at the disposal area?

- A: *Wendy Lannin:* We are disposing of material that is not suitable for the dam and dam construction. Some material is just not suitable because it is too variable.
- Q: *Claude Normandeau:* Will that be upstream or downstream?
- A: *Wendy Lannin:* The disposal area shown on page 20 is upstream. There are 17.5 million cubic metres of material needed for the dam, and 29.5 cubic metres of material that we would not be able to use in dam construction. A lot of that will come from the north bank. The north abutment of the dam is not as stable as we would like it to be so we will have to cut those slopes back to make them more stable. 10.5 million cubic metres are anticipated to come from that. All that material needs to be moved and disposed of. If you look at the picture on page 21, the grey shaded areas are the areas that are proposed for disposal use. We will need to work with the environmental team to see what the best way to dispose of these materials would be and to maximize its future use.
- Q: *Claude Normandeau:* What will you do with the organic strippings?
- A: *Wendy Lannin:* Organic material is usually stripped and then recovered. You would strip the area, put the organics aside and use it for ground cover later.
- Q: *Claude Normandeau:* This is upstream, so it would be in the water? I don't understand where the organics would go if you are stripping it.
- A: *Wendy Lannin:* The organic material upstream probably would not be stripped.
- A: *Andé McIntosh:* A caveat to that is that we could possibly look at this on a parcel by parcel basis for agricultural land. Should the project proceed to Stage 3, some of the topsoil from the agricultural lands could be salvaged. But that would be on a case by case basis.

Page 22 – Environment – Preliminary and Baseline Resource Studies; Wildlife Studies – Anré McIntosh

There were no comments received.

Page 23 – Stage 2 Baseline studies underway or planned – Anré McIntosh

There were no comments received.

Page 24 – Land Use; Agriculture – Anré McIntosh

There were no comments received.

Page 25 – Forestry; Mining and Oil and Gas – Anré McIntosh

There were no comments received.

Page 26 – Potential Land Use Effects – Anré McIntosh

There were no comments received.

Page 27 – Information Item – Transmission Lines – Anré McIntosh

- Q: *Claude Normandeau:* The amount of timber that you are planning on clearing, does that include clearing for the transmission line?
- A: *Anré McIntosh:* No, that is just within the reservoir. I do not know if we have concrete numbers for the amount of timber that would be cleared for the transmission lines. It is has just been recently been determined that the transmission lines will need to be expanded on the left hand side. Once those numbers are determined, that will form part of the discussion with the Ministry of Forests and the local tenure holders. It is very boggy and wet up there and I am not sure how much marketable timber there is, but I'm sure there is some.
- C: *Mina Laudan:* We are often asked what the transmission requirements are for Site C. The transmission from Site C to Peace Canyon is factored into the project cost estimate but the transmission from Peace Canyon to the south is part of the overall BC Hydro planning system and there are only upgrades required.
- Q: *Claude Normandeau:* Is there an overview of that in here?
- A: *Mina Laudan:* No, not in this guide.
- C: *Claude Normandeau:* It would be interesting to see the proposed route.
- A: *Mina Laudan:* There is an existing line from Peace Canyon, south to Kelly Lake and based on the planning BC Hydro undertook, which included both Site C and approximately 700 megawatts of proposed wind power, this information is given to the B.C. Transmission Corporation, who manage the transmission system for the province, and they estimated that we only require upgrades to the existing lines going down south. The transmission planning is really based on a portfolio of projects rather than individual projects. However, the transmission from Site C to Peace Canyon is specific to the Site C project.

Page 28 – Ongoing Site C Consultation; Property Owner Consultation; First Nations Consultation; Public and Stakeholder Consultation; Pre-Consultation Overview; Project Definition Consultation, Round 1 Overview; and Projection Definition Consultation, Round 1 Participation – Mina Laudan

- Q: *Clause Normandeau:* How are people compensated for land loss? Is it based on fair market value?
- A: *Mina Laudan:* There is a legal framework around that; BC land laws are required for projects such as Site C. Right now we are not actively acquiring land because no decision has been made to build Site C. However, since the BCUC hearings in the 1980s, there has been a program in place called the Passive Land Acquisition Program. If people want to sell their land that is within the footprint of the project to BC Hydro, we will buy.

4. Feedback Forms

Members of the small group meeting were encouraged to complete the Site C Project Definition Feedback Forms.

Q: *Claude Normandeau:* Why involve Fort Nelson in this consultation?

A: *Mina Laudan:* Site C is a provincial project. We have also consulted in Vancouver and Nanaimo. People on Vancouver Island are interested because of energy supply and people in Vancouver are interested from an environmental perspective, from the perspective of energy managers and also businesses interests. The majority of our meetings have been in the Peace Region in places such as Fort St. John, Hudson's Hope, Taylor and Dawson Creek because those are the people most directly impacted.

Q: *Claude Normandeau:* What is the chance of us getting a power line from Site C?

A: *Mina Laudan:* If that is something you would like to see, I would suggest putting that on your feedback form. Currently that is not within the scope of Site C. You shouldn't feel constrained by the feedback form. If there were something you would like to add that is not on the form, I encourage you to make those comments.

C: *Facilitator:* Particularly on page 36, there is an entire page for additional comments that may not pertain to any of the questions we have asked in the feedback form.

C: *Claude Normandeau:* Anything you do to Highway 29 will be an improvement.

C: *Claude Normandeau:* Our town is in discussions right now. I think we produce 45 megawatts and they want to increase it to 72 megawatts. It would be nice if that could come from Site C, but the timeline might be too far out.

A: *Mina Laudan:* I don't know too much about it, but I do know that you have immediate needs in Fort Nelson.

C: *Mavis Brown:* You should know that there is an all-candidates forum tonight.

C: *Mina Laudan:* We know. A lot of people will also be watching the American election that is on tonight, so we have some competition for our open house.

C: *Mavis Brown:* Neither of those things were on last round and there were only two of us at the open house.

Q: *Claude Normandeau:* There is discussion of Site C, but could there be another project planned in the province after that?

A: *Mina Laudan:* In the long term acquisition plan that BC Hydro filed, some customers asked us about that too. Right now there are no other large

hydro projects in the planning stage. The 2002 energy plan stated that all new generation should be through renewable independent power producers. That is why we are seeing growth in wind, run-of-river, and so on. It did outline what the other options might be, but none of them are being pursued. At one point, there was a Site E option and it would have been close to the Alberta border. When Site C went to the BC Utilities Commission in 1982, it was also suggested that that flood reserve for Site E be lifted to give the community some certainty that there would be no flooding and they could use the land.

C: *Clause Normandeau:* Let's build it! I have some friends in Hudson's Hope who don't feel the same way though.

A: *Mina Laudan:* We have feedback from all sides of the project. There have been expressions of support and expressions of concern.

Q: *Claude Normandeau:* How many boat launches are planned? What would you provide for a reservoir of that size?

A: *Wendy Lannin:* There are some safety concerns as some of the slopes are unstable, so we need to make sure that these recreation areas aren't across from an unstable slope

A: *Anré McIntosh:* That is also part of the socio-economic scope and they are working with the engineering team. For example, you wouldn't want to build a recreation site across from Ataché because although Ataché is gone, the rest of the slope is still unstable. We can't yet give you a firm number of how many recreation sites there would be. That number should come out of Stage 2 or Stage 3 if we proceed.

A: *Mina Laudan:* That question was part of Project Definition Consultation, Round 1: Where do you want to see recreational sites and what type of recreational sites do you want to see?

C: *Claude Normandeau:* It was also asked in 1982.

C: *Anré McIntosh:* Recreation sites could include everything from backcountry sites with no services, to fully-serviced sites for RVs.

C: *Mina Laudan:* That is also related to the current consultation topic on reservoir preparation. During consultation we have heard that the reservoir should be prepared to allow for safe boating. This also relates to access road maintenance so the public is able to access the reservoir.

C: *Mavis Brown:* I got here earlier last time and I learned a lot, but I still don't know enough to say this should or should not happen.

Q: *Claude Normandeau:* Is this upstream or downstream from the rail bridge?

A: *Wendy Lannin:* It would be upstream. There is a picture on page 12 that shows the rail bridge in the bottom right-hand corner.

- C: *Claude Normandeau:* I thought this project should have gone though in the early 1980s, I don't know why it wasn't built.
- C: *Mina Laudan:* The BCUC had 2 key findings. They felt there was no need for that energy at the time and they felt we hadn't looked closely enough into alternatives.
- Q: *Claude Normandeau:* Earlier you talked about buying power; I would like to challenge you on that. What I have heard is that we sell power at a good rate and then we buy it in cheaper. Is this correct?
- A: *Mina Laudan:* This is true, we trade. Powerex, a subsidiary of BC Hydro, does energy trading on a daily, hourly and minutely basis because we have the hydro capacity to do that. We buy power when it is cheap and store it. This actually makes money for the province. But in the last decade we have become net-importers of electricity. This is one of our most asked questions.
- C: *Mavis Brown:* Power demand is going to continue to go up because everyday there are more gadgets that require power
- C: *Mina Laudan:* This is true. Also, one thing that hasn't been looked at is electric cars. This will need to be looked at in the future.
- Q: *Claude Normandeau:* How will Site C impact power rates?
- A: *Mina Laudan:* The cost estimate for Site C is \$5-\$6.6 billion. This would ultimately be recovered in rates. That is something that would need to be reviewed by the BC Utilities Commission and I imagine the rate impact would be over a number of years. All new sources of energy that we look at have a rate impact. We need the energy, so it becomes a question of what is the best option to fill that need.
- Q: *Mavis Brown:* What is run-of-river?
- A: *Wendy Lannin:* Run-of-river is a hydro project that doesn't have any storage. For Site C, the storage comes from Bennett dam.
- Q: *Mavis Brown:* Is it a pipe in the river that the water goes through?
- A: *Wendy Lannin:* Basically yes. Water is diverted from the river to generate power. There is a lot of power generation in the spring with the run-off, but as inflows taper off, not as much power is produced. There is a lot of capacity for this in the province, but without a reservoir there is no guaranteed energy source. The benefit of a project like Site C is that there is storage and it is a reliable source of power.
- C: *Mina Laudan:* We have a lot of potential for run-of-river in British Columbia.
- C: *Mavis Brown:* It seems like a good idea, but as with many things, when I really find out about it, it might not be such a good idea.
- C: *Wendy Lannin:* It is a blend of everything. It is a part of the portfolio and everything has its benefits. Run-of-river doesn't help you though when it

gets to be minus 20 or 30 degrees up there and the rivers freeze. You need something more stable to provide for that demand. However, they do provide a great input to the overall system as they are a source of clean energy.

C: *Mina Laudan:* If anything, I think the approach BC Hydro is taking is to encourage conservation and look at renewable energy such as run-of-river. However, we do need a source of firm energy to maintain reliability.

Q: *Claude Normandeau:* When you build a reservoir, what does that do to the water temperature? Does it increase or decrease the temperature?

A: *Anré McIntosh:* In terms of the reservoir, I can't answer that. I do know that water is densest at 4 degrees. As the water gets colder it sinks and the dam intakes are down low, so it would be taking colder water in. The water does get heated up as it goes through the generator and it comes out warmer. This does impact the downstream water temperature. This is part of the water temperature-modelling program for Site C. We can get that information for you.

5. Closure

The small group meeting was closed at 4:55 p.m.





BC HYDRO
PEACE RIVER SITE C HYDRO PROJECT

PROJECT DEFINITION CONSULTATION
ROUND 2 SUMMARY REPORT

APPENDIX 2 –
OPEN HOUSE QUESTION AND ANSWER SESSION NOTES

FEBRUARY 9, 2009

Prepared by:
Kirk & Co. Consulting Ltd.
and
Synovate Ltd.



About Kirk & Co. Consulting Ltd.

Kirk & Co. Consulting Ltd. is recognized as an industry leader in designing and implementing comprehensive public and stakeholder consultation programs. Utilizing best practices in consultation, the firm designs consultation programs to maximize opportunities for input. Kirk & Co. works with polling firms to independently analyze and report on large volumes of public and stakeholder input.



About Synovate Ltd.

Synovate Ltd. is an internationally recognized market research firm. All consultation input received by feedback form and written submission was independently verified and analyzed by Synovate.

Participants self-selected into consultation rather than being selected randomly. Consultation feedback is not comparable to an opinion poll because respondents do not constitute a random sample.

The views represented in this report reflect the priorities and concerns of consultation participants. They may not be representative of the views of British Columbians and other stakeholders because participants self-selected into Round 2 Consultation. Although results are presented in the form of percentages, there are no margins of error for this data because there is no probability sample. The sample in question is based on self-selection, for which a sampling error cannot be measured.

Cover image: *A back channel on the Peace River approximately one mile east of the potential Site C dam site location.*

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

PRINCE GEORGE OPEN HOUSE November 3, 2008

Notes from an open house held with members of the public and representatives of the Site C Project Team on November 3, 2008 at the Ramada Inn, 444 George Street, Prince George, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Bob Gummer, BC Hydro
Chris Horwood, Kirk & Co. Consulting Ltd.
Anré McIntosh, BC Hydro
Randy Reimann, BC Hydro
Andrew Watson, BC Hydro
Emilie Yee, Kirk & Co. Consulting Ltd.
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

Format: The record notes that the Open House commenced at 6:00 p.m. and participants were encouraged to view the story boards and use the opportunity to have one-on-one discussions with BC Hydro personnel. The Discussion Guide was distributed to all participants. At 8:00 p.m. participants were gathered into an informal circle for a question and answer session.

The meeting was called to order at 8:00 p.m. and there were twelve members of the public present.

KEY THEMES:

- Participants were interested in issues such as capacity and energy alternatives, as well as whether there would be an impact on archaeological sites.
- Participants expressed an interest in knowing why a third dam on the Peace River made sense.
- Participants expressed an interest in greenhouse gas and other emissions.

1. Welcome and Introduction of the BC Hydro Project Team

Round table self-introductions were undertaken.

2. Question, Answer/Comment Period – Facilitator

The Facilitator noted that the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, and will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names we apologize for any misspellings.

It was the intent of this session to allow participants time to question or provide comments on the project.

Dave Conway: BC Hydro

I want to reinforce that no decision has been made to build the project - presently in Stage 2 of a five stage process and at the end of Stage 2, in the fall of 2009, BC Hydro will provide a report with a recommendation to government containing consultation results, technical studies and updated financial information. The information will go to government and they will make a decision about whether or not we move to Stage 3.

The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment

Q: *Glen Mikkelsen:* You say that the dam has a life span of 100-years - what happens after that?

A: *Andrew Watson:* Generally, a dam is described on a financial basis with financial assumptions and once a dam is put in, it is in place forever. On our existing facilities some of the components, such as generators are reaching the end of their life and we are replacing them.

Q: *Al Peterson:* How many units are there proposed at Site C?

A: *Andrew Watson:* Six – 150-megawatt turbines.

Q: *Al Peterson:* What about the consultation with the First Nations? Where is that at? I am wondering about where you are at with that process?

A: *Dave Conway:* The consultation with the First Nations is a parallel but separate process and we have identified approximately 26 First Nations, all the way to the Arctic, that we want to talk to. Presently we are focusing a lot of energy on Treaty 8 First Nations within British Columbia and we are working on a protocol agreement for consultation with them.

Q: *Al Peterson:* What has been their response?

A: *Dave Conway:* I haven't been privy to those consultations because I have been involved with this consultation however they are sitting down and

talking with us about a protocol agreement and that is a positive step forward.

- A: *Facilitator:* Jack Weisgerber is leading the First Nations consultation and there is an email address for him, in your Discussion Guide, if you want to ask further questions of him regarding the process.
- C: *Dave Conway:* Jack Weisgerber is the former MLA for the South Peace Region, was the Minister for Energy and Mines and was responsible for BC Hydro. He is a former member of the BC Hydro Board of Directors and a former member of the BC Treaty Commission and brings a unique skill set to the First Nations discussions.
- Q: *Isla Tanaka:* My understanding is that Williston Lake cannot be used for recreation because of the toxins in the water and the torpedoing logs. What about the reservoir at Site C, and how are you planning on preparing the lands so that it can be used for recreation?
- A: *Andrew Watson:* During the reservoir preparation we would harvest the timber and stabilize areas and as far as toxins and potential for toxins that will all be looked in the water quality studies.
- A: *Dave Conway:* There is also a major difference between the reservoirs (Williston and proposed Site C) and the potential Site C reservoir is not there for water storage but rather to provide a head for the turbines while Williston is there for the water storage.
- Q: *Al Peterson:* I talked to you, earlier before the meeting started, about being publicly owned because that is a major concern of mine and I wonder about the P3¹ process and if it will be used in the building of the dam?
- A: *Dave Conway:* Remember that we haven't got a project and you are well ahead of looking at that. With respect to your question around P3's, there is no model there.
- A: *Andrew Watson:* If the project proceeds we would have to evaluate that because we are mandated by government to review that model if we get to that point. There has been no decision on the procurement model.
- Q: *Al Peterson:* I think it is really important for the people in this area and in the Peace River District to use the dam as was the case in the WAC Bennett Dam and I am wondering about the effect of the agreement signed with Alberta and what effect that would have on the labor force. I would like to be assured that British Columbians would have the first opportunity to work on the project.
- A: *Andrew Watson:* I am not familiar with that agreement however, no decision has been made on procurement.
- C: *Facilitator:* Really this is a comment. Behind the question if you will, is a comment to please ensure that British Columbians would have the first chance of working on the project if it goes ahead.

¹ Public Private Partnerships

- C: *Al Peterson:* Right and if that hasn't been considered, the Telemus Agreement, then it should be. That was a recent agreement signed between BC and Alberta around labor.
- A: *Andrew Watson:* Use of local labor is one of our principles.
- Q: *Martin Gertsma:* What is the most serious constraint associated, either physical or environmental constraint, with the project?
- A: *Dave Conway:* We are in project definition and a lot of the information is out of date. We are in Stage 2 and a lot of work is being spent on updating the technical studies, geotechnical, engineering, and environmental work. We are in the process of gathering that information to build a comprehensive base of information.
- A: *Andrew Watson:* One of the challenges of a large project like this is the long development time and then a long construction period, seven years. We need to ask what will be the economic conditions that far out. Government has asked us to maintain this (Site C) as a contingency resource at this point.
- Q: *Martin Gertsma:* I am a landslide researcher and I know that it is an unstable area, so landslides are part of a problem as are displacement waves that are generated by the landslides. A large landslide can come into the reservoir and wipe out villages below as happened recently in another part of the world. There are other examples where instability has increased as a result of the construction of a reservoir like the Three Gorges in China. I don't see any of that (studies) here. I am curious about where that is at?
- A: *Andrew Watson:* That was a topic in the first round of consultation, where for example, we looked at the safe impact line for residences and we are using impact lines for erosion and groundwater. The historical work looked at wave models and used a very conservative assumption so that overtopping waves of the reservoir could not happen. We are now in a position where we better understand the risk.
- Q: *Martin Gertsma:* Are there studies on wave run-up?
- A: *Andrew Watson:* We are in the process of identifying existing instability and groundwater pressure. Most of the instability is slope and we know historically about the Cache Creek and Ache slides and we will look at that and test for stability.
- C: *Martin Gertsma:* Also you will be raising the water level in the tributaries, Halfway River, Cache Creek and Moberly and that will cause instability.
- A: *Andrew Watson:* We are looking at the whole reservoir.
- C: *Facilitator:* I would encourage you to continue your discussion with Andrew Watson after the meeting and I can provide you with a copy of the Round 1 Consultation Discussion Guide which has the information about this material.

- A: *Andrew Watson:* Also, all of the reports from the Round 1 consultation are available on the (BC Hydro) web site.
- Q: *Alex Deevy:* Are any steps being taken to ensure the archaeological values in the area to be flooded?
- A: *Anré McIntosh:* With respect to the archeological sites there is existing historical digs and studies and as part of Stage 2 the environmental team is developing a heritage program and that issue will be addressed if the project proceeds to Stage 3.
- Q: *Alex Deevy:* Are local First Nations involved?
- A: *Anré McIntosh:* Yes to my knowledge they are, and if the project went to Stage 3 there would be massive digs and sampling.
- C: *Martin Gertsma:* You can't avoid some archeological sites being flooded.
- Q: *Glen Mikkelsen:* Are there other alternatives to Site C or is this the one that is most viable?
- A: *Randy Reimann:* We do a 20-year plan and we look at resource options that are available. We have a filing before the commission right now with the 2008 Long Term Acquisition Plan and as part of that we look at what other large hydro was available in the province and we did an update to that plan. In a nutshell, Site C captures the value of the water storage reservoir at Williston and practically speaking, this is the only one (Site C) we are considering at this time.
- Q: *Unidentified Speaker:* What about another dam by the Mica Dam?
- A: *Randy Reimann:* On the Columbia River there are the Mica and Revelstoke Dams and with respect to a third one I am not sure of that but they have multiple dams on the Columbia at this time.
- A: *Dave Conway:* At Revelstoke they are adding a 5th generator and a looking at potential for 5th and 6th generator at Mica and potentially a 6th generator at Revelstoke. Those are 500 megawatts – so where there is additional capacity to generate, we can add capacity but we are not getting a lot more energy.
- Q: *Al Peterson:* Are there generating units on the Arrow – the high Arrow?
- A: *Andrew Watson:* Yes.
- Q: *Al Peterson:* Two.
- Q: *Al Peterson:* Is there capacity for more?
- A: *Bob Gummer:* No, the facility is owned by another Crown Corporation and there is no room for future capacity increases.
- Q: *Al Peterson:* It is the same because it has a huge reservoir?
- A: *Bob Gummer:* An earlier plan, by BC Hydro was abandoned and then the water rights went to the Columbia Power Corporation and they built a slightly smaller facility.

Q: *Isla Tanaka:* With large dam sites, isn't there methane gas given off and won't this be the largest man-made water body in the world?

A: *Andrew Watson:* Reservoirs can emit some gases but we believe that this will be very efficient reservoir and we will be initiating studies in Stage 3 that will study that. Most of it is river bed and that is a major factor as to why it will be efficient.

Q: *Alex Deevy:* With respect to the question regarding topsoil on the Feedback Form, and in a situation like this, do you salvage it or leave it there?

A: *Andrew Watson:* We would look at it and evaluate it. There is a lot of gravel in the reservoir area and one of the things that we will be studying is pre-access to it or do we stockpile it and those are all things that will be looked at. Is it a water issue?

A: *Anré McIntosh:* If you are referring to top soil salvage rather than excavation – what would happen is that the sites would be examined on a site-specific basis and should we go to Stage 3 and depending on a whole host of factors, we would look at the feasibility of salvaging it.

Q: *Glen Mikkelsen:* Where does the power come from when it is traded or is needed to meet our energy needs?

A: *Randy Reimann:* We trade down as far as California and with Alberta depending upon prices and we buy freshet energy from US, so typically in the spring time that is some of the best power available and we buy that.

Q: *Martin Gertsma:* Is sedimentation a factor? Do you have any ideas about sedimentation?

A: *Andrew Watson:* Site C will be used primarily for a hydrologic head so it is not the volume that is as important, rather it is the height. Historic studies looked at sedimentation and the sediment load that comes from tributaries and there is a 700-year time frame before it is an issue.

C: *Al Peterson:* That is what makes it attractive.

3. Feedback Forms

Members attending the open house were encouraged to complete the Site C Project Definition Feedback Forms.

4. Closure

The question and answer/comment session closed at 8:30 p.m. and the open house was closed at 9:00 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

VANCOUVER OPEN HOUSE November 5, 2008

Notes from an open house held with members of the public and representatives of the Site C Project Team on November 5, 2008 at SFU Downtown Campus, 515 Hastings Street, Vancouver, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Cam Matheson, BC Hydro
Michael Savidant, BC Hydro
Andrew Watson, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

PUBLIC: (from the sign-in sheets)
Antonio
Craig Aspinall, Western GeoPower Corp.
R. Bedford
Brian Bonney, Canadian Federation of Independent Businesses
Dan Bouillon
David Craig
Ryan Porter, PERI
Scott Ellis
Rick Fearman, Taxpayer
Finola Finlay
P. Funk
Brian Gardner
G. Giusa
G. Hilman, PSI Fluid Power
D.J. Huntley
Jason John
Laurie Kelsey, Flatiron
Frank Koop
Garner Lancaster, PSI Fluid Power Ltd.
Don Mackenzie, Gan Hadanee Care-Isomatics
Bill Matheson, Power Pioneers
Loch McJannett, IPPBC (Independent Power Producers of BC)
Sam McKnight
Frederick Metcalfe, Arlette Communication Inc.

Peter Miller
Walker Mooney
Terry Molstad
Quan Li, Financial Risk Program - SFU
Maureen Liddy
Adrienne Peacock
Jane Pennington
Warren Perks, BC Construction Association
David Perttula, Terasen Gas
Ron Pott, SFU
Bev Ramey
Paul Save, UBC
Leon Sadownik
Sedlacek, UBC
Shane Simpson, MLA Vancouver Hastings
H. Leslie Smith
Jon Turner, Hemmera (Consultants)
Henry Wakabayashi, Pacific Liaecen
Don Williams
Des Wilson, Peace Valley Environmental Association

MEDIA: Colleen Kimmett, The Tyee

Format: The record notes that the Open House commenced at 5:00 p.m. and participants were encouraged to view the story boards and use the opportunity to have one-on-one discussions with BC Hydro personnel. As well copies of the Discussion Guide were distributed. At 7:00 p.m. participants were gathered into an informal circle for a question and answer session.

The meeting was called to order at 7:00 p.m. There were approximately twenty persons from the public present.

KEY THEMES:

- Participants were interested in alternative energy options.
- Participants asked about the decision-making process, with one participant suggesting that the decision to proceed to Stage 3 should be made by the legislature rather than cabinet.
- The Canadian Federation of Independent Businesses expressed support for renewable energy options and Site C.

1. **Welcome and Introduction of the BC Hydro Project Team**

Round table self-introductions were undertaken.

2. **Question and Answer/Comment Session – Facilitator**

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, and will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names we apologize for any misspellings.

It was the intent of this session to allow participants time to question or comment on the project.

Dave Conway: BC Hydro

I wanted to reinforce that no decision has been made to build the project - presently in Stage 2 of a five stage process and at the end of Stage 2, in the fall of 2009; BC Hydro will provide a report with a recommendation to government containing consultation results, technical studies and updated financial information. The information will go to government and they will make a decision about whether we move to Stage 3 or not.

The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Q: *Unidentified Speaker:* Doesn't that sound like a conflict of interest, what you are describing is something like the police investigating themselves? Where is the independent organization? You say there are 20-30 years of study information that BC Hydro is updating so why is BC Hydro conducting the studies because this sounds to me like an environmental assessment?

A: *Siobhan Jackson:* The Environmental Assessment Review process would happen in Stage 3 if the project proceeded and then the assessments would take place for a federal and provincial assessment review and the environmental assessment review would define what information is required to complete the process. The review would determine if the information was acceptable and the process to be followed is laid out in legislation. At Stage 2 we are conducting the baseline studies and several year studies are underway so that if we moved to Stage 3 we would have a solid understanding of the environment and the fish and wildlife.

C: *Unidentified Speaker:* In my experience this is like you are already doing that, you are talking to the First Nations seeking input. What have you learned from Williston that will better inform you? It sounds like the Peace is dead and you are doing Site C and to what point are you saying enough is enough? Where is BC Hydro in terms of accumulative effects because already you have oil and gas and forestry up there? To what point are Vancouver and Metro Vancouver going to take responsibility for hydro - why does the north always have to take a hit when it is the south that uses the power? What is the rationale for Site C because I am guessing that you are being asked for more electricity? Will you encounter the

same problems as you did in the past? When are you coming clean on environmental effects? What lessons have you learned from Williston?

- A: *Cam Matheson:* There is a new need for electricity resources in the province for the first time since the 1980s and that sets up a process relative to what will suit the province best. Site C is an important option and what makes it attractive is because you can get energy and important capacity values from Site C because BC Hydro already has an enormous amount of water stored in Williston and that water is run through two other dams, the Peace Canyon and Dinosaur Dams, and that makes it attractive. If you went to another river you would have to create a massive environmental impact. The lower mainland is an electricity island and the load center is here and it is connected by high voltage lines from the Peace into the area and then you ask can you build something inside the island and we already know the potential is saturated within the island and that brings us to the question of a thermal plant which is either coal or natural gas and that would have big emission profiles. We have looked carefully at those options and believe the chances of being permitted to operate are very low and so that is what leads us to Site C. Conservation is important and we are doing that and it (conservation) is in the long term plan - about 75% of that is in the plan that we recently filed for energy needs over a 20-year period.
- A: *Siobhan Jackson:* Environmentally, we operate large hydro facilities around the province and we have large scale programs which are the places where we learn and adapt – compensation programs and in the Williston there is the Peace Williston Fish and Wildlife Compensation Program and there is a web site where there are a lot of studies posted. The other program is called water use planning and we have looked at all our facilities and assessed what changes could be made to improve environmental conditions and we understand about heritage and fisheries and significant improvements have been made and brought into the water licence and we continue to monitor and continue to evaluate and learn and manage a water eco-system with regulators and communities of interest.
- A: *Andrew Watson:* With respect to the engineering and lessons learned there have been activity in other parts of the world and that is a large part of the baseline work that we will be looking at in terms of construction techniques and lessons learned. An example would be reservoir clearing and people have raised that in the Peace region. That is a good example and what was done there with a clearing plan and if Site C were to proceed we are looking at base clearing and preparation of shoreline stability and impact line studies and what other considerations should be incorporated into and we are looking for input to integrate into the plans. This takes time and is upfront work.
- C: *Brian Bonney:* I am here tonight representing the Canadian Federation of Independent Businesses and while we haven't surveyed our membership, in general terms from the 50,000 foot level, I can present their views. First of all let me tell you something about us; 86% of all businesses are small business owners with the vast majority having less than 5 employees and working 60 hours a week. Generally our members are very supportive of Site C and other alternative renewal energy and we recognize that BC is net importer of power and no matter

what we do with respect to conservation we have to generate energy into the future. We are pragmatic and know that a lot of energy, that is imported, is coming from dirty sources right now and generally we are not in favour of that and we would like to see BC become energy self-sufficient and keep the prices for power low. And when the gentleman talked about not relying on the north that is probably not realistic but alternative renewal energy projects, such as tidal/wind, that the southern area could contribute to our power needs, we are supportive of. On the environmental side you have addressed or mitigated issues that have been brought up and while I had a couple of questions they were answered earlier by your staff.

Q: *Finola Finlay:* Has the turnout been better up north?

A: *Facilitator:* Participation has been very good and there were about 1,000 participants in the last round of consultation and likely it will be higher this round. In the last round of consultation approximately 360 persons attended open houses held throughout the province. In this round of consultation there were many multi-stakeholder meetings of between 5 to 40 people and while some people really like that format it is not for everyone and BC Hydro has tried to create different forums and we have the feedback form available on-line. There has been good participation and closer to the direct impacts you do get a heightened interest.

Q: *Finola Finlay:* I read the report of the first round of consultation and the comments were aggregated across all and sometimes segregated – is there any plan to weight responses when it comes to decision-making time because obviously those with the most impact maybe deserve to have a weighted response. Even though there are local impacts it is a significant provincial resource. My question is about weighting of responses.

A: *Facilitator:* BC Hydro will do a consideration memo and by that I mean they will take the feedback and consider it and document it and there will be documentation of the feedback. By the very fact that most of the meetings have been in the Peace River region, in the methodology, it is a type of weighting.

A: *Dave Conway:* There will not be a weighting of responses but BC Hydro will provide all consultation feedback information to Cabinet.

C: *Finola Finlay:* I would encourage you to separate responses as much as possible.

Q: *Clara Sedlacek:* How do you ensure you reach your target because I didn't know about this open house until very recently – what is your strategy and goal – what is enough people?

A: *Dave Conway:* We have tried to be as comprehensive as possible through for example; advertising in newspaper placements, advertising on the radio, a mailer went out to 23,000 households in the Peace River region, identifying people that have been self-identifying, there is an extensive email list of about 1,700 persons, follow up calls, establishing a toll free line, fax, there is a consultation office in Fort St. John and we have a satellite consultation office in Hudson Hope. I have been in communication with a number of organizations but unless people are looking for it the consultation information may go over people's heads and we

can't go out on the street and drag people in. We have tried to make the process, to provide feedback, as flexible and easy to access as possible. We don't have a target number rather we want as many people as possible to gain a comprehensive understanding of the project.

- Q: *Pete Miller:* I am from Tsawwassen and that is a famous place for BC Hydro – how many independent land owners and people live within the area to be flooded?
- A: *Dave Conway:* I don't have the exact number of independent land owners, do you mean the area to be flooded and how many property owners are in the area to be flooded? If you do, for the flooded impact: there are about a dozen properties that are potentially impacted, approximately 40 people and remember that information is 30 years old and needs to be updated. There are impacts from the highway realignment and sloughing impact lines. These are properties and not people.
- Q: *Facilitator:* The question is how much property does BC Hydro own?
- Q: *Pete Miller:* Given the size of the reservoir, how many acres would 12 properties represent?
- A: *Andrew Watson:* Half the land is crown and the other half is private land and of that private land half of that is held by BC Hydro so about ¼ of the land is privately held. How much land would be flooded? The reservoir is approximately 82 kilometres long and that includes the back flooding of two tributaries. We are looking at the shore line and impacts to groundwater changes, erosion and changes to stability and whether we may have to purchase land for groundwater changes in terms of water rights. Most of the land has been already been purchased.
- Q: *Pete Miller:* What about the Ouellette and the Pitt?
- A: *Cam Matheson:* The Cheakamus is all in the lower mainland area.
- Q: *Pete Miller:* What about the Pitt - how much power?
- A: *Cam Matheson:* It is Ouellette/Stave.
- Q: *Pete Miller:* What do you take off the Ouellette?
- A: *Andrew Watson:* 250 megawatts.
- Q: *Pete Miller:* What about the Stave?
- A: *Andrew Watson:* It is 250 megawatts out of the Stave and Ouellette.
- C: *Pete Miller:* So Site C is 900 megawatts or about 20%.
- Q: *Don Mackenzie:* My First Nations name is Umpas Hadanee of the Raven Tribe, Ganhada and I am expressing appreciation for the gathering. I would like to hear someone speak of the involvement of First Nations in BC and Alberta and I would like to have one person speak to the recommendation to government and how that recommendation may be handled. I need to get a sense of how that eventual recommendation will be dealt with and I would like assurance that the legislature will address the recommendation.
- C: *Facilitator:* So your first question is about the First Nations and your second question is how will the decision be handled?
- A: *Dave Conway:* The consultation with the First Nations is a separate but parallel process and we have identified First Nations starting with Macleod Lake, further

south, and going all the way through to the Arctic – 26 First Nations. Primarily our work has been with Treaty 8 First Nations and we are focusing on a protocol agreement for consultation with them and we have done some work with Alberta.

C: *Facilitator:* Would the legislature be involved in dealing with the decision?

A: *Dave Conway:* I can't speak to that, BC Hydro will provide a recommendation to Cabinet and government will make the decision.

Q: *Umpas Hadanee:* Is there no one here representing BC Hydro that can offer assurance that the legislature will be involved in how the recommendation would be handled? Frankly, you are saying you have no idea about the legislature.

A: *Dave Conway:* That is our understanding – it is the mandate of BC Hydro to report to the provincial government.

C: *Umpas Hadanee:* It seems to logically follow that the legislature should be involved but we should communicate that feeling – “don't leave the legislature out of the decision”.

Q: *Pete Miller:* I am sort of wondering over the next 10 to 20 years and given the current generating capacity what are the growth conditions?

A: *Dave Conway:* It is 11,000 megawatts integrated and non-integrated. What I mean by non-integrated is that BC Hydro has some diesel that are stand alones.

Q: *Pete Miller:* What are the growth requirements over the next 20 years?

A: *Cam Matheson:* It changes especially given the current economic conditions but generally it is about 1,000 gigawatts growth and you just heard the capacity number that was given - about 60,000 gigawatts with about 30% load growth over that time.

Q: *Pete Miller:* Are the gigawatts all year round?

A: *Cam Matheson:* Right.

Q: *Pete Miller:* What share does 900 megawatts represent of the potential requirement down the road?

C: *Facilitator:* Your question is what share would Site C be over a 10 or 20 period?

A: *Cam Matheson:* In proportion to the overall system it would be about 8% from an energy standpoint - the proportion consumed is 4,600 gigawatts on a system consuming 60,000 gigawatts a year or about 7%.

C: *Pete Miller:* Even with Site C you will still have a considerable gap in terms of adequate energy requirements.

A: *Cam Matheson:* Absolutely.

Q: *Pete Miller:* While this energy gap may not be a problem for me it might be for the young lady sitting up there. What other sources do you have to get at this?

A: *Cam Matheson:* The long term plan, which was filed in June, which covers that time period addresses that gap through conservation programs using tools such as educational information, changes to codes and standards and more sophisticated rates and all together the demand side management is about 75% of new need and the other 25% will come from acquiring power from independent power producers. Right now we have three calls in various stages of development.

Q: *Umpas Hadanee:* You seem to be talking a 20 year window about 1.X % increase per annum so in ball park terms if there is a 30% increase in demand would that

be approximately similar to the population increase so that per person demand would remain the same in the next 20 years?

A: *Cam Matheson:* Load forecasting looks at population growth and we go to different sources and look at gross domestic product, economic indicators, housing indicators and we hope, because if it isn't the case we will fail, we hope that the average profile will drop in terms of per capita consumption of electricity.

Q: *Finola Findlay:* Site C has been around for quite a while and last time it was saved by *power smart* and demand side management. Did that initiative, and it is still on-going, did it give you the information that you are now bringing to the notion of 75% conservation - was it that successful?

A: *Cam Matheson:* It was a big informer as to potential but *power smart* in the late 1980's was never envisioned to deal with the volumes that we are now talking about today and while it was important to inform us this demand side management program has forced us to step outside our boundaries and look at things like codes and standards, rate structures and new programs that we haven't tried before, smart meters, new infrastructure that will help us and yes *power smart* was important because it told us the savings were out there and that was why the conservation review was very important.

Q: *Umpas Hadanee:* I don't want to be unduly critical but I would like to know how your entity perceives it's credibility with the public? It is part of your history and now it is in the present – you are told this is how much water you can have and you ignored those instructions and what that is like saying is what is good for General Motors is good for the USA and what is good for BC Hydro is good for BC. What perceived credibility do you think you have? Is there some credible entity that watches you on our behalf?

A: *Dave Conway:* I think we have a lot of credibility and generally speaking we have a lot of credibility and yet there is room for criticism and the Williston experience is something we hear about. The British Columbia Utility Commission watches us and you can look at the record and they are watching out for the experience of the ratepayer.

A: *Siobhan Jackson:* Some of the facilities, in the lower mainland, are over 100 years old and through our water planning review process we clarified what we were allowed to do and in some cases it was difficult to gain that understanding. One of the outcomes on our part was to clarify with the Water Controller what we were allowed to do and what we were not allowed to do and if we went outside of that we reported to all interested parties including the Water Controller.

A: *Cam Matheson:* I have worked in a cross-section of the company and we have a tremendous number of agencies that watch what we do, for example, the British Columbia Utilities Commission and we don't do anything unless they say they bless it. The Water Controller looks very carefully that we conform with the water licence. The Department of Fisheries and Oceans, DFO, looks carefully as does the Navigable Waters Act and archeologically-speaking the Heritage Conservation Act looks closely so we have a very wide range of agencies that looks at everything we do on a daily basis however your point is well taken and

way back when the water licences were issued they were vague and today we would just say no and that has been corrected through the water use planning process. With respect to credibility we think of our customers interchangeably and on customer surveys we are consistently ranked about 90% satisfaction from our customers – I think the people of the province support us and that we have a lot of credibility.

- Q: *Pete Miller:* One thing I think of as I ride the chairlift at Whistler is that in James Bay they have been building hydro projects for 40 years and selling power to the US and they don't have any problems with that – they just do it. BC Hydro wants to do Site C and there is a huge mountain of discussion – why are they so different?
- A: *Cam Matheson:* I used to be on the Board of the Canadian Hydro Power Association and Quebec and Ontario along with BC are key members of that association and generally you are right and the situation in Quebec is for large hydro sites for export and that is different than in BC. In Quebec they support Hydro Quebec and understand the monetary benefit so there is little resistance and in BC that is not the case and it is not our role to speculate.
- Q: *Dave Craig:* I am interested in what the criteria would be that would lead to a recommendation to go to Stage 3 – if so what are they and what criteria do you have for a decision to not do it now as opposed to never doing it? My question is around whether you have looked at financial criteria on the option ahead of time and how much ahead of time?
- A: *Dave Conway:* BC Hydro is preserving the option because of the long time related to a large hydro project and through the 2002 Energy Plan the government asked us to do the work and undertake the consultation because if you don't because of the long lead time you don't have an option. It is not our role to define criteria rather we provide information and government will make the decision.
- A: *Michael Savidant:* With respect to your question around how much do you spend on an option? Site C is projected to cost between \$5.1 and \$6 billion and you don't want to commit to an option unless you do a fair amount of work – generally people spend up to 10% of the cost upfront to decide on a project of this type however that is not the case here. How much do you spend? It is a government decision and we just want to get as much information as possible.
- Q: *Dave Craig:* Yet you are making an option to proceed and I don't understand how you don't have a recommendation because there has to be a time frame where it is not worth studying because it is too far in the future and I haven't heard how you have looked at that?
- Q: *Facilitator:* Sometimes the word 'criteria' throws people off but when you look at the environmental and financial analysis and the engineering analysis and the overall public consultation input – you could say that was criteria if you will. As well it would be erroneous to leave the impression that hydro isn't looking at these factors.
- C: *Cam Matheson:* It is a structured decision-making process.

- Q: *Dave Craig:* Hydro has been making a job of making a recommendation and you are talking about dimensions yet there has to be some point when you say it is too early and we are sitting with the information that the project is backup so it is changing from the last plan that was presented.
- A: *Michael Savidant:* (Site C) was always an option.
- Q: *Dave Craig:* It was understood from the IEP¹ that it was in fact an option and in some portfolios it could be pursued.
- A: *Cam Matheson:* In the LTAP² it was a second tier contingency resource so even if the decision is made to go to Stage 3 it still doesn't mean it will get built.
- Q: *Dave Craig:* I understand that but you are looking at a recommendation of is it far enough long potentially to not proceed and a financial look at when you do it or not?
- A: *Cam Matheson:* Decision-making, in the context of the project as an option and whether we keep it open, will hinge on deliverability with respect to the risk around the demand side management options, the risk around economic growth and electric vehicles, what IPP³ energy attrition will be against what is assumed and the optionality of Site C is important because if you stop you have pushed it out many more years. Do we have a formal list of criteria, no; it is in the context of resource planning.
- C: *Dave Conway:* Thank you for coming and for your questions and comments. We commit to including your input and feedback in the Stage 2 report and there is consultation built into all stages – this is not an end to consultation, really it is a start. How you provide your feedback is important and it must be submitted by November 30th.

3. **Feedback Forms**

Members attending the open house were encouraged to complete the Site C Project Definition Feedback Forms.

4. **Closure**

The open house was closed at 8:10 p.m.

¹ Integrated Energy Plan

² Long Term Acquisition Plan

³ Independent Power Producers

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

TAYLOR OPEN HOUSE

November 17, 2008

Notes from an open house held with members of the public and representatives of the Site C Project Team on November 17, 2008 at the Taylor Community Center, Taylor, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Kate O'Neil, BC Hydro
Michael Savidant, BC Hydro
Andrew Watson, BC Hydro
Jack Weisgerber, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

Format: The record notes that the Open House commenced at 6:00 p.m. and participants were encouraged to view the story boards and use the opportunity to have one-on-one discussions with BC Hydro personnel. As well copies of the Discussion Guide were available. At 8:00 p.m. participants were gathered into an informal circle for a question and answer session.

The meeting was called to order at 8:00 p.m. There were eleven persons present.

KEY THEMES:

- Participants said they would like BC Hydro to invest in and develop alternatives such as wind, solar and other energy sources instead of Site C.
 - Participants expressed concern that proceeding with Site C would eliminate agricultural land forever.
 - Participants asked whether Site C is necessary, given current and projected demand, which they said could be dealt with through conservation and other alternatives to Site C.
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1. Welcome and Introduction of the BC Hydro Project Team

Round table self-introductions were undertaken.

2. QUESTION/ANSWER/COMMENT PERIOD – Facilitator

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed

meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

It was the intent of this session to allow participants time to question or comment on the project.

Dave Conway: BC Hydro

I want to reinforce that no decision has been made to build the project – we only have a mandate to be in Stage 2 and at the end of Stage 2, in the fall of 2009, BC Hydro will provide a report and recommendation to government containing consultation results, technical studies and updated financial information.

The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

C: *Tony Stoeck:* I found the information about the open house in my monthly invoice from BC Hydro.

Q: *Sandra Hoffman:* In order to go ahead with Site C, it is my understanding that you need to demonstrate the need for energy; from your 2008 Annual Report, you imported 34,020 gigawatt hours for trade purposes, 34,259 gigawatt hours to satisfy domestic demand and you exported 37,450 gigawatt hours for profit. This means that you are currently a net exporter of energy which doesn't demonstrate the need for energy. Are these figures correct, or are you purposely hiding your status as a net exporter of energy because this doesn't seem to be common knowledge or well advertised and doesn't seem to justify the need for Site C?

A: *Michael Savidant:* The numbers in the annual report are correct but when it discusses the numbers, for example, last year was a very wet year (precipitation, snowfall and rainfall); and we were at about 114% of our long term precipitation which represents approximately 5,000 gigawatt hours more than we would get in an average year so when we talk about being a net purchaser of energy we are talking about an average year, yet last year was very rare and we received a lot more energy through snowfall and rainfall and that allowed us to get into a net energy position and that is not something that happens on a regular basis - there is under a 10% chance of that occurring in a given year.

Q: *Sandra Hoffman:* At the last open house you said it was 8 out 12 years you were an importer and now it is 8 out of 13 years you a net importer, so are there still a number of years where you are a net exporter?

A: *Michael Savidant:* Yes, as you go back through the years as the load grows, the chances of being a net purpose exporter decreases but for the last decade we have not been in an average net surplus position; it is just in years where we get above normal rainfall and snowfall that we are sometimes able to get into a net sales position.

Q: *Sandra Hoffman:* So it goes one way or the other but it still does not suggest a big demand?

- A: *Michael Savidant:* It is actually a sizable demand and the amount of inflows can vary significantly. It can vary by more than 10% of the yearly domestic load – that is the kind of range we are looking at in terms of minimum and maximum water flows. So on average, one would expect there to be a demand and we expect that demand to get larger as the load grows if we don't bring on more conservation or other resources.
- Q: *Sandra Hoffman:* In terms of load growth, from the last four years in the annual report (2008- 2003), is it true that domestic need has declined – the amount imported to satisfy domestic demand has declined?
- A: *Michael Savidant:* No, domestic demand in BC has increased. It has decreased slightly in the last few years due to rainfall and inflows patterns - when you look at 2006 it was a dry year, 2007 was a normal year and 2008 was a wet year and that is what is driving that pattern. In the same annual report when you look at domestic usage you will see that has been going up every year. Overall, domestic usage in BC has gone up.
- Q: *Brian Churchill:* Could you provide domestic-use demand figures for the last four years? By that I mean what the ratepayers are using in gigawatt hours in the last four years?
- A: *Michael Savidant:* We can get back to you with those figures.
- Q: *Tony Stoeck:* I hear the discussion about importing and exporting – is it mostly from the United States?
- A: *Michael Savidant:* The purchasing comes primarily from the States and some portion from Alberta – the vast majority is from the Pacific Northwest.
- Q: *Tony Stoeck:* More is imported and when are you importing, at what time of the day are you importing or exporting and what impact or difference does this make on the overall supply of BC Hydro?
- A: *Michael Savidant:* On of the benefits of having a large hydro storage system as we have at Williston is that over the year we try and buy when prices are the lowest possible – for example, we try and buy in the spring when the snow melt occurs in the US and there is excess and in the evening when the load is lower in the US and prices are lower although we cannot always do that when we want to. We have to buy in the winter, for example, to meet the domestic need.
- Q: *Tony Stoeck:* I would like you to emphasize during night hours because I understand that it is in the evening when there is high load?
- A: *Michael Savidant:* What I meant by evening was fully night time when people are asleep and not using that much energy – we would save the water in the reservoirs and buy to meet demand.
- C: *Tony Stoeck:* That is what I wanted to know.
- Q: *Sandra Hoffman:* In order to have Site C, it is my understanding that you need to have looked at all the green alternates. There are green alternatives such as geo-thermal, wind and solar that needs to be developed. Geo-thermal in particular has the potential for two plants at Meagher Mountain that could bring in 500 megawatts of firm green power – 300 megawatts at North Meagher and 200

megawatts at South Meagher. Geo-thermal is being extensively used in many other countries and we are very fortunate in BC to have it and I have just mentioned two of the many places where there is potential. It also has the advantage of being closer to where it is being used down south and you wouldn't have the 10% loss of power from transmission from Site C. What are you doing other than just putting out the call for IPP's¹, because obviously that geo-thermal is not being promoted as many people don't seem to know about its potential in BC and why is that not included on the list of energy alternatives on question 1(a) of the Feedback Form?

- A: *Michael Savidant:* With respect to geo-thermal, it is BC Hydro's mandate to acquire energy and not build it. When it comes to developing geo-thermal we will buy that energy if they (IPP's) develop that energy but one thing the government energy plan has done is that the IPP's are the ones that actually develop those projects. While I don't know the details, the government is looking at incentive programs to develop geo-thermal energy but that is not done through BC Hydro. That is not our role to encourage new technology; our role is to acquire energy for our ratepayers.
- Q: *Sandra Hoffman:* That is all you can do, how do we get you to purchase from green IPP's instead of destroying our valley and destroying agricultural land and wildlife? Why not buy more green energy to focus on the future instead of focusing on Site C?
- A: *Dave Conway:* Site C is a project with a very long time period, it is ten to twelve years, and you need to be doing the type of work we are doing right now with the consultation and the project definition work which is the technical work that is going on. This is a potential resource option and in the short term, the calls you referred to are there to acquire green and clean energy options; for example, in this area there is Dokie Wind and Bear Mountain and Mackenzie Green, bio-energy and it (IPP development) continues as you move south. Micro-hydro and wind are the predominant ones to fill the need on the short term while we look at this option. The big difference between wind and micro-hydro options is that they don't provide firm, dependable capacity energy to the system because you can't count on the wind being there on average. Micro-hydro is intermittent, based on water supply, so you need something to add firm capacity to the system that you can count on when it is -25 below on January 7th.
- C: *Sandra Hoffman:* This is why I was talking about geo-thermal.
- A: *Dave Conway:* There is nothing to stop geo-thermal like the Meagher Creek development and I suggest that you pose that question to the IPP's.
- Q: *Rita Churchill:* Have you looked at the impact of spending half the amount of money you are proposing to spend on Site C to conserve energy and teach people about conservation. From my understanding, a good education program can cut down energy use dramatically and then you could preserve the valley and would not need Site C.

¹ Independent Power Producers

- A: *Dave Conway:* BC Hydro has got an aggressive program of demand-side management.
- Q: *Rita Churchill:* You have got a *Power Smart* program but I am talking about the kind of money that is proposed for Site C and putting that into conservation programs?
- A: *Michael Savidant:* If you look at the long term acquisition program there is an order of magnitude of money being spent on demand-side management than is proposed for Site C.
- Q: *Rita Churchill:* Why isn't it being promoted, I only just found about it and I teach and only because I happened to ask about it at the last forum?
- A: *Michael Savidant:* Education is only part of the demand-side management program. There is a fair bit of work being done on codes and standards, as well as the educational initiatives. We are also at the start of this extensive demand-side management program and there will be a lot more initiatives that we expect to be done over the next ten years.
- Q: *Rita Churchill:* Have you done a study on what the results will be?
- A: *Michael Savidant:* Yes and we have looked at a variety of subsets and are looking at putting money into each one of these things. We have a program that we expect can conserve 10,000 gigawatt hours of energy per year over the next ten years – that is what we expect to get.
- Q: *Brian Churchill:* How much has gone into the Phase 2 work for Site C to date?
- A: *Michael Savidant:* \$42 million.
- C: *Andrew Watson:* There will be \$300 million spent on demand-side management programs in the next two years.
- Q: *Brian Churchill:* \$300 million?
- A: *Dave Conway:* That is what is presently in front of the British Columbia Utilities Commission for approval.
- C: *Brian Churchill:* So it has not been approved.
- Q: *Arthur Hadland:* Is the original flood level for Site C 1525 feet? It was 1515 feet originally wasn't it?
- A: *Michael Savidant:* It is 461.8 meters.
- Q: *Arthur Hadland:* Didn't I hear that the levels were going to be raised to 1560 feet or 550m?
- A: *Andrew Watson:* No - they are the same level as was on the application in 1982.
- Q: *Arthur Hadland:* I will add a few things there. I guess I got "drug" down here and I am getting tired of your meetings and there was a clear message from the communities in the first round of consultation, 6% of the stakeholders were in favour of Site C and the stakeholders in favour in the rest of the province was 16% . Those numbers should send a sharp signal that maybe alternative forms of energy are where people want to go. I was on the PVAC and I think the term BC Hydro is a misnomer, and we are seeing the consequence of it today, it should be BC Energy. It should be owned by all of us but I don't have my share in my pocket or in my desk. I think we should have a more direct impact/say from the communities. Is there a Peace Region Director on the BC Hydro Board?

A: *Dave Conway:* No there isn't.

Q: *Arthur Hadland:* There is fallacy. We have a province of 4 million people and that is not a lot of people. When I look at alternate energy sources and clean energy, I think it would be geo-thermal and the one that is the most obvious right now, and I don't hear BC Hydro talking much about it, is that we have beetle killed forests. We have the potential for forest fires just like what is happening in California right now, so instead of looking at the short term of 70 years or whatever this dam will function for, why not look at a 1,000-year model or a 500-year model and look at the long term strategy. No. 1 - take the beetle killed forest and set up co-generation around the province and maybe this group could take this to the BC Hydro Board of Directors and say this is what we think. Set up the co-generation plants in every area of the plants and feed the garbage that can't be recycled. Really do some planning – look at geo-thermal because that is a no-brainer and that is the long-term option for this province. I am about to give up and you come to this and throw out proposals and everyone nods. Personally, I don't have much confidence in this process and you have a community that you have brainwashed and everyone believes you are going to build Site C and you are engaged in a long-term exercise to wear down the people. This is a strategy. It is unfortunate but this is supposed to be our company and look at what is happening. Rivers are the life-blood of whole communities and here you are, going to plug it off and if you plug off an artery in your body, the potential is that you die. You are killing a river, we have already contributed enough – move on and find something else.

C: *Al Peterson:* Part of the problem is the mandate - the mandate of BC Hydro. We have a situation where that mandate has been changed and it is no longer BC Hydro that goes forward and develops or looks at developing projects like you just mentioned - geo-thermal. I think that it is a big problem for the development of power in the future. What we need to do is go back to the mandate, to the original mandate when BC Hydro was established and they were going to develop energy projects for the province. Today there are a lot of other options that aren't available and have not been taken advantage of and that are to a great extent the result of the change in the mandate. As a result, it has left you, this company, which really doesn't have the expertise. BC Hydro is as competent, if not more competent than anyone else on the face of the planet when developing hydro projects from the technical aspect but the comments that people are making are not on the technical side but are on the effects on peoples lives and the ecological effects and the general effects on communities that are in the areas where developments take place. We are facing a problem which has developed as a result of the change in the mandate and what we really need is for BC Hydro to be given the opportunity to develop and initiate, not build and construct, but to develop and initiate these projects and then we will have all kinds of green energy being developed and will allow a reconsideration of what we are doing to our rivers.

Q: *Ray Ensz:* My question is not related to Site C – how many hydro plants in BC?

- A: *Dave Conway:* There are approximately thirty generating facilities.
- Q: *Ray Ensz:* You have been focused on Site C but what is the efficiency of all the other facilities; is each operating at 100%?
- A: *Andrew Watson:* We look at all our plants and there has been advanced turbine technology and for example, at the WAC Bennett Dam, we are putting in new turbines and additional efficiency.
- Q: *Ray Ensz:* What have the effects been on other dams and promises when they were built and for example Ocean Falls – is that a BC Hydro facility?
- A: *Dave Conway:* No, but BC Hydro purchases the power from the IPP.
- Q: *Ray Ensz:* I heard that it is only operating at 10% of its efficiency and the effects are being felt here and this is just one example – couldn't BC Hydro say to IPPs, produce 100% and we will buy it all?
- A: *Andrew Watson:* Those are projects that could bid into the (energy) calls if there is excess.
- Q: *Ray Ensz:* When you say bid do mean that BC Hydro would be giving a better rate?
- A: *Andrew Watson:* Something like the purchase agreement we have with Alcan for energy for them.
- Q: *Ray Ensz:* Kemano – is only operating at half capacity because the reservoir can't sustain all of it and those are two things that I know of. Until all those are running and the privately owned ones are running and until they are all being used at 100% and with the new technology that comes along, you could switch out the turbines and get more efficiency. If money from Site C was put into that then would we need Site C?
- A: *Andrew Watson:* We have redeveloped Abercrombie from 5 to 25 megawatts in the order of \$100 million and we are also looking at the upper Columbia at Mica and Revelstoke to increase the generation.
- Q: *Ray Ensz:* So are they producing electricity that we are looking for? Does it bring the demand for Site C down or no matter how efficient they get, will Site C remain – so as others are getting efficient will that lessen the need or demand for Site C?
- A: *Dave Conway:* We are well along the path of adding a generator at Revelstoke and there is the potential for a 6th generator there and the same at Mica – so there is capacity but the issue is water and on the Columbia we don't have the water so while we have the capacity, we can use the generators for capacity at peak periods but we will use the water up. At Site C, you are using the water three times and you can get both energy and capacity.
- C: *Facilitator:* The question I am hearing is, have you taken into consideration the increases you are making on the already existing dams to make them more efficient when you are thinking of Site C?
- A: *Dave Conway:* Yes and we are spending hundreds of millions doing that on facilities on the system.
- A: *Michael Savidant:* The capital plan is the order of \$3 billion over the next 5 years.
- A: *Siobhan Jackson:* We are looking at maintenance opportunities, putting in new units and as we go and look at the system either because we need to rebuild it or there is an opportunity, we are looking at all of that.

- Q: *Ray Ensz:* So you are spending money to make it more efficient – will the demand already have grown?
- A: *Andrew Watson:* Demand, ramping up conservation and building more and buying more and one of the big factors is that approximately 78% of new demand will be met through conservation. If not met, we will buy more or build more but it could be exceeded so these factors will be considered in terms of new supply.
- Q: *Brian Churchill:* I am listening to you talk about wind power and the Columbia and ultimately hydro dams are the most flexible and it is limited power you can turn on and off, so hydro is very good backup for wind.
- A: *Dave Conway:* Excellent point - it is an excellent fit with hydro when you have a water challenge.
- Q: *Tony Stoeck:* I hear lots of emphasis on conservation and I am all for it but how about raising the price and then we don't have to talk about conservation and that would solve it all. A light switch has two positions one on and one off.
- A: *Dave Conway:* We certainly know that price is a main motivator for people to conserve and we are doing a couple of things. For example, we have gone to a residential inclining block stepped rate and we are moving to this to incent people (to conserve). However, the issue for us as the major electricity producer for the Province of British Columbia is that we are also seen as an engine to economic development and we know that all users are not able to absorb rate increases. We put our requests for rate increases into the British Columbia Utilities Committee and they review it and determine whether or not it will be approved.
- C: *Tony Stoeck:* This is a question of sensitivity of price because 32 cents a kilowatts is coming and with the shutting down of nuclear power plants I don't see that people have much to complain about the price here and I am wondering if people are prepared to have a price that can double – keep this in mind. I enjoy paying 6.5 cents a kilowatt.
- C: *Gilbert Loucks:* I don't see anyone here as old as I am and I remember that before electricity, we had wood stoves and gas lamps and the gas mantle turned everything black and I think if all these people were sitting around those stoves, I think they would want electricity.
- C: *Tony Stoeck:* We could turn half these lights off, in the room, if we wanted to but we don't because electricity is cheap.
- Q: *Brian Churchill:* On October 29th a grizzly was reported in the Bear Flats - do you have a study designed to look at grizzly bears, genetic studies, in the Peace Valley?
- A: *Siobhan Jackson:* We will be continuing our discussions with Ministry of Environment as to what species are of interest and consideration. We heard of that sighting and that information will contribute to whether we need to add studies in the future.
- Q: *Brian Churchill:* Will you be doing radio studies on animals?

- A: *Siobhan Jackson:* This winter we will be doing collar studies on deer, elk and moose.
- Q: *Brian Churchill:* Collars?
- A: *Siobhan Jackson:* Radio collars and we will add satellite collars – 40 collars on each species this winter and based on what we learn we may be targeting for longer range collars.
- Q: *Brian Churchill:* Is there time for GPS collars?
- A: *Siobhan Jackson:* We have been discussing that approach with the Ministry of Environment to get some initial information and we are working on balance to get the initial information and then we may add to it.
- C: *Brian Churchill:* It is a longer wait to get the data when it should be the other way around.
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- C: *Laurel Hadland:* What about our children, grandchildren and our great grandchildren - if the river is gone, the opportunities are gone and hydro is old technology, not of the 21st century.
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- Q: *Arthur Hadland:* Wasn't Meagher Creek a geo-thermal experiment by BC Hydro?
- A: *Andrew Watson:* Yes, that is my understanding.
- Q: *Arthur Hadland:* So they (BC Hydro) were reaching outside of their comfort zone or mandate and looking at alternative energy forms and that energy is closer to the lower mainland and you won't have transmission costs or losses. I take that observation. On Page 7 (Discussion Guide) geo-thermal looks cheaper if I am reading the graph right and I see the emphasis being put on that and I guess there is a level of creditability to go forward as an agency and you are all hired folk working for the agency. Do you have a direct conduit into the Board of Directors and when you do a report is that not reported back to the Board of Directors? Like you just phased phase 1 on your consultation so where does that report go?
- A: *Dave Conway:* There is a structure within the company and Site C consultation is under the Senior VP of Corporate Affairs, Susan Yurkovich and the information goes to the VP and then to the President, Bob Elton, and then to the Board.
- Q: *Arthur Hadland:* On the first consultation did they (Board of Directors) note that only 6% were in favour of Site C?
- A: *Dave Conway:* The Board would see the materials that are provided.
- C: *Arthur Hadland:* But it was not emphasized and it was put right at the end of the consultation summary report and so it was de-emphasized in the report. So it depends on how that was presented to your VP. I will leave this as a brainstorming session because BC Hydro lost creditability with me in 1976 when they took the first run at Site C and also they were thinking of Site E on the Liard. I think there was one more site and it was going full bore like this was a great thing for BC and then all of a sudden the British Columbia Utilities Commission conducted hearings and it was determined that we didn't need that energy and this was after BC Hydro's Mr. Nash stood up in the Mackenzie Inn, that big ballroom, and said we will have brown-outs if you don't let us have Site C. I am getting that same flavour again and am feeling diminished by my previous experiences.

Maybe you could tell Susan Yurkovich that flooding rivers is an old idea and look at this from a holistic viewpoint. We are a growing population and to keep flooding rivers which are finite, why not look at this and I throw it out that BC Hydro should be called BC Energy and maybe the Board of Directors should review their whole mandate and look at the long-term. I think this is very short sighted and very myopic and I believe we should look at what is immediate and we maybe have enough wealth in BC Hydro to provide incentives to build co-generation plants around the province because they would last longer than Site C and it is more immediate and would have the benefit of employing more people in BC. My last thing is – WAC Bennett had a great vision and he was a leader and he built the road system and a rail link that connected us all together. We had the BC Hydro model for providing cheap power, it is too “damn” cheap but that has been eroded. BC Rail was sold, it was a political thing and not your problem and then they sold off part of BC Hydro that no one knows much about, the accounting part, and we are saying we are saving \$250 million dollars over 10 years by doing this, by selling it to Accenture Business Services of BC. So by this, what BC Hydro did, we lost all our little front offices and this had a negative impact on our communities and there was a proposal, I think, to sell BC Hydro but there was such a “hew and cry” that suddenly the politicians drew in their horns but I wonder if we are going to see it after a another election and the present government maintains their majority. If you have a conduit into the Board of Directors, you can tell them that the community sees alternative energy forms that would really employ people and cleaner greener energy in the long term and to look at geo-thermal because that is totally sustainable.

- Q: *Brian Churchill:* Given the current economic hysteria going on in the world and impacts on demand, costs and credit and while I know that it is hard to predict demand, when was the last cost estimate for Site C?
- A: *Michael Savidant:* May 2007 cost estimate and it showed a range because there is a fair of uncertainty with a project that won't be built for several years between \$5.1 to \$6.6 billion dollars and included this consultation.
- Q: *Brian Churchill:* We know that world dam studies show that hydro dams come in 30% over budget and does that figure include that?
- A: *Michael Savidant:* It includes the reserve and we have looked at risks and included that in the reserve.
- Q: *Tony Stoeck:* Does someone have a calculator – can you generate how much that is in kilowatt hours?
- A: *Michael Savidant:* You are talking about unit energy cost or the levelized cost of energy over the lifetime of the facility. Site C is in the range of between \$50 - \$100 megawatt hours and then you can compare that to other projects and wind is \$80 – \$230 megawatts and the whole table is on Page 13 of the Discussion Guide or about 5 - 10 cents kilowatt hour for Site C.
- C: *Dave Conway:* Thank you for coming and for your questions and comments, we really appreciate it. We are committed to including feedback in the Stage 2 report

along with updated technical and financial information. We will provide a report with a recommendation to government at the end of Stage 2 and if we move to Stage 3, there will be further consultation.

Q: *Brian Churchill:* I find it incredible that you are putting a report with recommendations in 2009 with baseline information on wildlife and you won't have even started your studies – so how can you make a recommendation when the studies haven't even started? How will you make a report when you don't have the information?

A: *Siobhan Jackson:* The information collection started in Stage 1 and 2 and if the project moved to Stage 3, all of that information will be moved into Stage 3 - so we are at an early stage and the determination of the complete information will be determined during Stage 3. This is pre-initiated data collection and then if the project goes to Stage 3 we will continue the data information.

Q: *Brian Churchill:* When will that be?

A: We can't say for sure when that will occur because if we go to Stage 3 we will work with the regulators to determine the Terms of Reference and what the information collection will look like. The Discussion Guide has indicated a two-year period and that would be the minimum amount of time and may take longer depending upon the requirements if we move to that stage.

Q: *Rita Churchill:* Will we get the information before the reports are completed?

A: *Siobhan Jackson:* We commit to getting out the information at the end of Stage 2.

Q: *Rita Churchill:* Will the wildlife reports be made available to the public before a final decision is made?

A: *Siobhan Jackson:* The reports will be available through the environmental assessment period.

C: *Gilbert Loucks:* This won't make me very popular but I say for the next meeting bring two coil gas lamps and cut off the electricity and then see what they say.

The public meeting was declared closed at 9:08 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

DAWSON CREEK

OPEN HOUSE

November 18, 2008

Notes from an open house held with members of the public and representatives of the Site C Project Team on November 18, 2008 at the, Dawson Creek, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Mina Laudan, BC Hydro
Cam Matheson, BC Hydro
John Nunn, BC Hydro
Andrew Watson, BC Hydro
Jack Weisgerber, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

Format: The record notes that the Open House commenced at 6:00 p.m. and participants were encouraged to view the story boards and use the opportunity to have one-on-one discussions with BC Hydro personnel. As well copies of the Discussion Guide were available. At 8:00 p.m. participants were gathered into an informal circle for a question and answer session.

The meeting was called to order at 8:00 p.m. There were twenty-one persons present. Earlier in the evening a group, composed of ten persons, walked through the open house protesting Site C and also walked once through the question and answer session.

KEY THEMES:

- Participants said they would like BC Hydro to invest in and develop alternatives such as wind, solar and other energy sources instead of Site C.
 - Participants expressed concern that proceeding with Site C would eliminate agricultural land forever.
 - Participants asked whether Site C is necessary, given current and projected demand, which they said could be dealt with through conservation and other alternatives to Site C.
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1. **Welcome and Introduction of the BC Hydro Project Team**

Round table self-introductions were undertaken.

2. **QUESTION/ANSWER/COMMENT PERIOD – Facilitator**

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed

meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

It was the intent of this session to allow participants time to question or comment on the project.

Dave Conway: BC Hydro

I want to reiterate that no decision has been made to build the Site C project – we only have a mandate to be in Stage 2 and at the end of Stage 2, in the fall of 2009, BC Hydro will provide a report and recommendation to government containing consultation results, technical studies and updated financial information.

The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Q: *Al Watson:* Dave (Conway), you made the comment that no decision has been made about Site C but yet when I talk to people from BC Hydro they say that it is a done deal, so pardon me if I don't believe you what you say about Site C.

A: *Dave Conway:* The people in the room are the people working on the project and we were directed to update the technical and financial work and consult and there is no mandate to move to Stage 3. If people are saying that they aren't intimately involved with the project.

C: *Marcketa Leoppky:* At the last meeting in October I raised my concern that there was a possibility that the provincial government would privatize any or part of the project (BC Hydro) so I went and contacted our MLA and he responded with this information which has been provided to the record and is:

“This is the policy action from the BC Energy Plan.

“15. Continue public ownership of BC Hydro and its heritage assets and the BC Transmission Corporation.

“The BC Energy Plan upholds and confirms the 2002 Energy Plan's fundamental principle of public ownership of BC Hydro, its heritage assets and the BCTC. Under the 2002 Energy Plan, the government passed the *BC Hydro Public Power Legacy and Heritage Contract Act* to ensure continued public ownership of BC Hydro and its heritage assets, including BC Hydro's generation, distribution and transmission systems. While BC Hydro retains ownership of the transmission system, the *Transmission Corporation Act* dealt with the transfer of transmission, operation, management and planning responsibility to BCTC. The *Transmission Corporation Act* included the stipulation that BCTC must be 100 per cent owned by government and cannot be sold. These protections remain in place to continue to ensure public ownership of these corporations and assets.”

And if anyone that suggests privatizing BC Hydro they cannot because we have the legislation in place protecting it.

- C: *Ruth Veiner:* We didn't think for one moment that BC Rail would not be ours and then BC Liquor stores, when they started making money, they were sold so I don't see a guarantee that won't happen, I don't feel so confident.
- C: *Marcketa Leoppky:* It is protected in legislation if that is any consolation.
- C: *Patsy Nagel:* I am from the BC Women's Institute and I feel there should be no more dams on the Peace; we have already given our share to BC. The government is advocating the 100 mile food policy and yet where will we get our fruits and vegetables if this fertile land is under water. Due to the micro-climate in the area, it is possible to grow our fruits and vegetables and there are many avenues that could be opened up to utilize the abundant crop. I do not support the Site C dam.
- Q: *Joe Figura:* I have been talking to people in the community and a lot of people are against this project because they feel the power will be sold to the US and in the past they (BC Hydro) sold power to California that they never got paid for and people don't want to see power leave the country.
- A: *Cam Matheson:* In our system we sell and buy electricity from the US and BC is interconnected in a very wide power grid that includes BC and Alberta, the Pacific Northwest. Everyday we buy and sell electricity in that grid to keep rates low for our ratepayers. Generally we net out up until the last six or seven years where we have bought more than we sold. There is no guarantee that if Site C is built that electricity won't be sold to the US but BC Hydro has no mandate to build that station to sell to the US – we only sell to optimize the value of the system we have and not purposely to export.
- Q: *Joe Figura:* I can understand that because at peak times you buy and sell and I can understand that but people are concerned about this and believe you will build the plant to sell the power to the US.
- A: *Dave Conway:* In 2001 after the purchase of the sale of energy to the US, BC Hydro netted \$1.1 billion from that sale and was still owed \$450 million (Canadian). We are still owed that money and we are still pursuing getting that money back through the Californian system however we still made \$1.1 billion net for ratepayers.
- Q: *Joe Figura:* Is there anyway to block California from getting power until they pay?
- A: *Cam Matheson:* Yes but California is the most lucrative market place.
- Q: *Joe Figura:* They can't be that lucrative if they still owe money?
- A: *Cam Matheson:* They are and the ability to optimize the system remains with buying power from California. PowerEx, the company that buys and sells the power for BC Hydro, has estimated that if we didn't buy we would be a net loser so we are trying to get the money from California.

- A: *Dave Conway:* Sales are not operated on credit period and now it is close to 'cash on the barrel' - that is the situation right now because California is almost broke.
- Q: *Bill Taylor:* Last year for example you bought more power than you sold so how much did it cost?
- A: *Cam Matheson:* Last year - that is a bad example because it was a very wet year.
- Q: *Bill Taylor:* We bought more power so how much did we lose?
- A: *Cam Matheson:* You can't say lose because we often sell for more than what we buy it for.
- Q: *Bill Taylor:* You get to state it your way but if you are not building Site C for export what is the demand of 40% over the next years and what are you using that 40% more for? What is the 40% increase in demand?
- A: *Cam Matheson:* I am not totally familiar with that figure of 40%.
- Q: *Bill Taylor:* It is repeated over and over in the Discussion Guide.
- A: *Cam Matheson:* Our load generally grows and the overall system is about 60,000 today and will grow somewhere between 33% - 40% depending on the rate of growth.
- Q: *Bill Taylor:* Does your plan call for a 40% reduction due to efficiencies?
- A: *Cam Matheson:* The 40% increase is estimated before taking into account the drop in demand from the conservation program and the long term plan will be about 80% of the demand to be met through conservation programs and this also goes back to the question about Site C. Right now our plan does call for Site C to come into the system in 20 years and holds it as a potential option. Most of the demand for new need comes from conservation.
- Q: *Bert Veiner:* If it is only 20% for the period isn't BC Hydro's main mandate to produce cheap power?
- A: *Cam Matheson:* The mandate is provide reliable, low cost energy for generations of British Columbians.
- Q: *Bert Veiner:* BC Hydro should be on the forefront of wind and other alternative energy sources so there should be no need to destroy the valley and river forever.
- A: *Cam Matheson:* The long term plan that we will be defending in the New Year calls for the need to be met from conservation, up to 80% and the remaining 20% from IPPs¹ from a clean power call (wind and small hydro power).
- Q: *Bert Veiner:* Can't BC Hydro build it?
- A: *Cam Matheson:* Our energy plan calls for BC Hydro to purchase energy from the private sector, upgrade existing facilities and look at large hydro, Site C. Site C is the only exception.
- C: *Ruth Veiner:* I find a lot of discomfit in that last scenario and when I think of the hectares of Class 1, Class 2 and Class 3 agricultural land that will be flooded, I can't see the reason for that and I am opposed to any more dams on the Peace and I also belong to an organization of about 900 women who feel the same way. To me there is no compensation available to replace that and what has already been

¹ Independent Power Producers

destroyed. How will BC Hydro replace that agricultural land because you can't just reproduce that land? We have chosen to live in this pristine part of the world and once the Portage Mountain Dam was built and BC Hydro changed the name once it was built to the Williston Reservoir and who the 'hell' is Williston – there was no thought given to the people of the First Nations or the people in the north. It makes me sick to call it Williston because it is the Portage Mountain Dam. I feel that we aren't looked at with much respect by BC Hydro and this is a slap in the face to the northern pioneers and the First Nations people in the area. I would rather my grandchildren eat in the dark than starve in the light. I don't want it.

Q: *Al Watson:* You say no decision yet but are there a set of blueprints?

A: *Andrew Watson:* There is work relating back to the 1980's and we are doing some update work relative to the footprint and there are some drawings that will be updated and cost estimates but there are no new tender documents.

Q: *Al Watson:* I have been looking on the internet quite a bit and reading material from all over the world about people building dams without flooding land. Our dam system requires depth of water to turn the turbines but what about horizontal turbines?

A: *Andrew Watson:* All the energy potential is taken from the reservoir. Other dams and other schemes would not use that but to take all that energy from the system you need pressure head.

A: *John Nunn:* Turbines in the river would not give a fraction of the energy that Site C would give and you would have a river full of turbines and that would have its own impact.

Q: *Al Watson:* Other countries are doing that on their smaller rivers. I understand about draining flow from water but once the water is through the turbine it re-energizes again and I don't understand the loss of energy.

A: *John Nunn:* You are talking about river flows and they have energy and when that energy is not flowing it is taken away and what a dam does is store the energy to put through turbines but it is not the same scale as you would get from small turbines and a whole series of small turbines would have an impact.

Q: *Doreen Meerman:* I also think you could be using water turbines and other rivers beside the Peace. By using that technology you won't have to flood the Peace and last summer on our holidays we saw one working. Why aren't you looking at other rivers and more turbines in the rivers?

A: *Dave Conway:* We are and we have a clean energy call out and there is micro hydro and they are using the small rivers and streams throughout BC. We have been doing that and adding those into the system since 2003 and we have about 85-projects already using that on a small scale. Site C is 900 megawatts capacity and a small hydro might be 1 to 5 megawatts, where they are diverting the water out and then putting it back, so there are varying degrees of scales but that sort of thing is happening.

Q: *Patsy Nagel:* It is our understanding that load loss from the transmission lines is about 20% - 30% depending on the weather.

- A: *Andrew Watson:* It is less - there are losses but they are in the order of 10%.
- C: *Patsy Nagel:* It doesn't seem economical to have a dam up here and the load down there – I think the energy source should be closer to the load.
- A: *Andrew Watson:* The benefits of the Williston Reservoir is the reason that the government asked BC Hydro to look at Site C, to maximize the benefit of that storage and regulation of that reservoir.
- A: *Cam Matheson:* If you wanted to build a project of approximately the same size in terms of energy values, on an unregulated river, the impact would be 50 times greater. The value of Site C is the reservoir. There would be way more impact from building a project on an unregulated river.
- A: *Andrew Watson:* Site C would get a third of the power.
- Q: *Patsy Nagel:* How long would the dam last? I have been hearing about 50 years.
- A: *Andrew Watson:* The financial assumption is in the order of 70 years but the project would last substantially longer than that – think of it like paying off a mortgage and then maintaining the investment and the structure would remain indefinitely as long as you maintained the investment.
- Q: *Patsy Nagel:* What if there was a lot of sloughing of the banks – will it shorten the life of the reservoir?
- A: *Andrew Watson:* The primary mechanism for infilling will be sediment from the Halfway River and estimates are showing that would be in the range of 700 years and wouldn't affect the viability of this project and again because we are not using the river for storage because the storage is at Williston.
- Q: *Patsy Nagel:* How much longer is Williston going to last?
- A: *Andrew Watson:* It is in the order of 10,000 years and again those areas would revert to flood plain. It is a very long period of time in order of 10,000 years.
- Q: *Bert Veiner:* Anyone that has lived here would know this but you have no idea about the amount of sloughing that takes place and there have already been slides and one slide dammed up the river for a period of time.
- A: *John Nunn:* You are referring to the Ache Slide and we have surveyed that area and we know that there is a sloughing problem there and we are looking at the activity of those banks and what would happen to those banks. We will look at a broad U-shaped bank and what will happen would be that we would flatten that out. We are looking at studies on the stability of the banks, the viability of the slopes and formation of beaches and if the project went to the next stage those impacts would be part of the environmental assessment.
- C: *Bert Veiner:* Anyone travelling around between here and Fort St. John knows about the continual movement of the river banks.
- Q: *Joe Figura:* Has anyone looked at the rivers in Prince George to build dams because there is a good size river running through that town.
- A: *Dave Conway:* There is already a dam on the Nechako River and it is operated by Alcan and from the Fraser River perspective I will let Andrew Watson address that aspect of the question.
- A: *Andrew Watson:* Historically, the province looked at a large dam on the Fraser – the Moran Dam with a large reservoir but this hasn't been looked by BC Hydro

and this was back when the province was thinking of regulating the Fraser – it is a very old project and maybe even predates BC Hydro.

Q: *Joe Figura:* So what has happened to that?

A: *Andrew Watson:* Nothing – it is not in BC Hydro’s mandate. The province has a two river strategy for BC and that is the regulation of the Columbia and Peace Rivers. Site C would not change the downstream flows and would take advantage of the storage at the Williston Reservoir and that is why we are looking at this project.

A: *Cam Matheson:* Years ago, under Premier WAC Bennett, the province embarked on a two river policy as the main driver of energy in the province, the Columbia and Peace Rivers, and largely it was built out according to that plan and today we are adding generators at Mica and Revelstoke. On the Peace River there was always the intention of developing more than one site and the Peace Canyon Dam was built and you are seeing the continuation of this two river policy - that was the design and intention from the 1950’s as load or demand has grown in the province.

Q: *Joe Figura:* What about another dam on the Columbia River?

A: *Cam Matheson:* There are no plans in the works to add another dam on the Columbia.

A: *John Nunn:* Right now there are three dams on the Columbia.

A: *Siobhan Jackson:* There are dozens of dams on the Columbia all the way to Oregon.

A: *Andrew Watson:* It is the storage of the reservoir capacity that drives it.

A: *Cam Matheson:* The backbone of our electricity system for the province is the two storage reservoirs that contain multi-year storage where it has taken over three years to fill those reservoirs and it is the value of that water that is the backbone of the electrical system because it is so reliable and cost effective and that is the reason why if you build an additional project you should look first at utilizing that storage.

Q: *Inga Reareme:* Is the Kenny Dam operated with BC Hydro?

A: *Dave Conway:* No, Alcan.

Q: *Inga Reareme:* I understand they held the water back on the Nechako last summer and then flooded a lot of people out that live on the banks.

A: *Dave Conway:* I don’t know a great deal about that but what I know is that there was record snow packs and they were operating at 140% of norm and they still had a large snow pack in the summer time. That dam moves a maximum of twelve feet and they had about five feet of available space.

A: *Cam Matheson:* Earlier someone asked about net importing and last year we were a slight net exporter of electricity and the reason why was because it was such a big water year and we became a small exporter.

Q: *Al Watson:* Had you been in consultation with Alberta downstream about what the impact of Site C will be and the ice jam problems?

- A: *Dave Conway:* The Province of British Columbia is presently in discussion with Alberta and the Northwest Territories on the water share agreement – those are government to government talks.
- A: *Siobhan Jackson:* With respect to ice jamming, we have initiated discussions with the Federal Department of Fisheries and Oceans Canada to understand potential downstream impacts and the flow downstream will be no different than the flow volume today and the timing won't change. Site C will not change the flow of water downstream.
- Q: *Al Watson:* What about water temperature?
- A: *Siobhan Jackson:* We have consultants developing studies that will look at water temperature and from the past studies as the water moves from Site C the slight temperature change won't be noticed. We are beginning work with the federal agencies to understand how far down it may be felt.
- Q: *Al Watson:* Are there legal challengers against BC Hydro for causing ice jams?
- A: *Dave Conway:* Yes there has been and a settlement was reached with one and there is an outstanding litigation with another that is currently in abeyance.
- A: *Jack Weisgerber:* The case has not been pursued for the last 6 or 7 years and was not related to ice, it was more related to water. We have been working cooperatively with the Town of Peace River to manage ice.
- A: *Cam Matheson:* We have an agreement with Alberta around control flow to deal with ice. We reduce discharges out of GMS to reduce flows and a lot of energy values are foregone as a result of that but we try and find a balance between operational needs and ice flow and Alberta's concerns.
- Q: *Al Watson:* When you release more water at the Bennett Dam, what happens at Peace Canyon Dam and what would happen at Site C?
- A: *Cam Matheson:* We actually release less water to manage control flows, we don't release more. If Site C were to be built it would be in hydrologic balance with the rest of the system.
- C: *Bert Veiner:* You are saying that Site C is the answer and you are expecting us to pay the price – the BC government expects us to pay the price to satisfy the rest of the province for export.
- C: *Marcketa Leoppky:* The land wasn't being used for agricultural production but could be and once it is flooded it is gone and there is no getting that land back.
- A: *Siobhan Jackson:* There have been previous comments on agricultural lands lost and the previous assessment that was done took into account lands that had agricultural capacity regardless of its current use and the assessment wouldn't diminish that.
- Q: *Patsy Nagel:* I know that BC Hydro has water rights and has bought up nearly all the land along the river and if it was flooded they already have the land.
- A: *Dave Conway:* The acquisition of land, buying the land by BC Hydro, was done through a passive land acquisition program.
- Q: *Patsy Nagel:* That isn't the way I heard it.

- A: *Dave Conway:* That program is still there and we do have a significant portion of those lands and we have leased some of those lands back to the farmers.
- C: *Patsy Nagel:* The problem is there is no incentive to build processing plants, for example, because they don't own the land and will not put investments out to produce. There are no incentives to develop the land or make investments on the land such as processing plants because they don't own it.
- C: *Ruth Veiner:* I have lived here a long time and your words annoy me because passive or aggressive is a state of where you are. If I had a farm and there was a line on a tree where the water will be, do you think I would feel very comfortable expanding my farm? Not very likely. That is not what we say as farmers in the area - that is not what we say about a passive land acquisition.
- C: *Facilitator:* I really appreciate your patience with the fans and the noise this evening and now we are going to wrap up.
- C: *Doreen Meerman:* Save our environment - you aren't protecting the environment you are destroying it and we can never get it back once it is gone. Aren't there other ways to do things like wind power, small generators, etc?
- Q: *Carey Clark:* Are there Sites D, E and F?
- A: *Andrew Watson:* There is a Site E at the border which was part of the energy planning in the 1970's but the flood reserve was removed in the 1980's. Site C will take all the energy.
- Q: *Al Watson:* Going through some of the questions, for example, 6C on Page 34, where you want to know how we feel about removing and reusing premium soil before flooding – that is the most ridiculous question I have ever heard of in my life but since you have asked it what would that cost?
- A: *Siobhan Jackson:* Previously there were some high quality soils that were proposed to be relocated to farm lands outside of the flooded area but I don't know the cost associated with that proposal as mitigation.
- C: *Al Watson:* Then you ask us about parks developed and what do we feel about an access road when you are destroying one of the best parks in the country and again this is a ridiculous question. *To the Facilitator: you have done a good job in spite of the noise.*
- C: *Ruth Veiner:* My last comment is that it is beyond me how you will remove that valuable land because the biggest thing is the micro climate. *To the Facilitator: You have done a good job.*

The public meeting was declared closed at 9:00 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

HUDSON'S HOPE

OPEN HOUSE

November 19, 2008

Notes from an open house held with members of the public and representatives of the Site C Project Team on November 19, 2008 at the, Dawson Creek, BC

PRESENT: Carolyn Butt, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Mina Laudan, BC Hydro
Cam Matheson, BC Hydro
Danielle Melchior, BC Hydro
John Nunn, BC Hydro
Andrew Watson, BC Hydro
Jack Weisgerber, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

PUBLIC: (from the sign-in sheets)
Bev Bach
Robert Bach
Michelle Borowitz
Mary Brereton
Richard Brown
Kathy Burseth
Wayne Christensen
Lenore Harwood
Wally Harwood
Ray Gallant
Gwen Johansson
Darryl Johnson
Lori Kelly
Rose-Ann Kirkeeng
Radiant Kress
Glen McTaggart
Kim McTaggart
Anita McWilliams
Deborah Peck
Ross Peck
Al Peterson
Larry Peterson
Lynda Peterson

Miah Phelps
Wiga Rebecca
Birrerr Stefan
Travons Tquibell
:Wendhina

Format: The record notes that the Open House commenced at 6:00 p.m. and participants were encouraged to view the story boards and use the opportunity to have one-on-one discussions with BC Hydro personnel. As well copies of the Discussion Guide were available. At 8:00 p.m. participants were gathered into an informal circle for a question and answer session.

The meeting was called to order at 8:00 p.m. There were twenty-one persons present.

KEY THEMES:

- Participants commented that the Site C consultation events are more like information sessions rather than true consultation.
- Participants suggested that BC Hydro should be talking to the residents of Hudson's Hope to gain local knowledge about environmental issues, including animal species found in the area and socio-economic related issues.
- Participants were generally opposed to Site C.

1. Welcome and Introduction of the BC Hydro Project Team

Round table self-introductions were undertaken.

2. QUESTION/ANSWER/COMMENT PERIOD – Facilitator

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

It was the intent of this session to allow participants time to question or comment on the project.

Dave Conway: BC Hydro

I wanted to reiterate that no decision has been made to build the Site C project – we only have a mandate to be in Stage 2 and at the end of Stage 2, in the fall of 2009, BC Hydro will provide a report and recommendation to government containing consultation results, technical studies and updated financial information.

The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Q: *Ross Peck:* I would be interested in your definition of consultation?

A: *Dave Conway:* There are different perspectives, different aspects related to the project and in pre-consultation we heard how the consultation was to be

conducted and from that we designed the next consultation and we are gathering feedback in as many ways as possible.

Q: *Ross Peck:* There are some legal definitions of consultation that you have to be aware of and I see that you are trying to help us but that we are not getting much back. I just looked at the environmental thing and you have basically two pages in the report talking about environmental concerns and there are about 60-70 studies that are on-going and then I look at the feedback form where I am asked what my preferences are but there is no other question that is being asked so I don't feel that I am being adequately consulted on any of those aspects. I don't feel that we are being adequately consulted on the whole environmental spectrum. We are not getting the results of the studies until the end of Stage 2 and I don't feel that I have been adequately consulted. The consultation period will be finished by the time we get to the end of Stage 2.

A: *Dave Conway:* There is also a lot of ability related to things that aren't captured and we have said consistently that if the feedback form doesn't work we will take input from whatever works for you; email, letter, fax, etc.

A: *Hugh Smith:* I think that we are in a pre-consultation process right now and that is a little different than a regulatory process where there will be the whole sharing of information, volumes of information. Right now we are involved in baseline inventory studies, renewing of decade old studies and looking at harvestable species and species that are a concern from a listing perspective, smaller species such as butterflies, etc. and while there are different perspectives we are very much at an inventory level. Impact assessment will be at the next stage of the project if it goes ahead. Presently there isn't a huge amount of information to share, we are waiting for the consultations to finish and we will make the technical study reports available when complete. If we move to the assessment process then the information will be moved in Stage 3 and then we will start looking at the implications of the baseline information.

Q: *Lynda Peterson:* How long are the consults out, how are they taking studies, how are they determining what species of animals are in the Peace? No one has asked me – no one has asked us about the grizzly bear tracks that are in our field, what animals are you looking for and how are you looking for them?

A: *Hugh Smith:* The study designs are based on provincial standards, which the province puts together, and there are 13 different groupings of wildlife which have different study approaches and in the case of eagles that is done through nest counts, observations and routine inventories in the watershed. With songbirds, we use standard approaches and in some cases use 'call backs' for sound for some species that you can't see. In terms of fisheries we have been doing work for the last eight years looking at the annual species assessment of the composition in the river and while it is mostly routine methodology it is based on federal and provincial standards. Currently we are in meetings with the agencies to ensure they are satisfied with the methodology used and we will continue to define the programs.

Q: *Lynda Peterson:* Will the studies be year round so that they can get the whole picture?

- A: *Hugh Smith:* Yes, and for example, we are just moving into snow tracking for some wildlife and are also considering radio collaring for some wildlife to look at their movements over the seasons so there is a mix of methodology and it is a large effort to get a complete data base.
- C: *Facilitator:* I just want to like to let you know that information sheets regarding the studies are available in the holder by the door and there is more information in the Discussion Guide.
- C: *Ross Peck:* Further, to what I was saying, I still feel at the end of the day, at the end of this stage, that I haven't been adequately consulted on the issues. This is an information gathering process to try and find out what is going in the valley, what we know, but it is not a consultation and I don't think it is appropriate to get to where a decision is made and for you to go to cabinet with a recommendation that says you consulted with the folks because that would be a misnomer. You have not consulted.
- C: *Larry Peterson:* Let me give you an example of consultation, I read about a study on plants being done so I called up because there are prickly pear cactus on our farm and two fancy trucks came out and no one spoke to me and it was missed. I have been insulted but not consulted. This is a waste of money by people that don't know anything and this is worthless. This is not consultation, this is a lot of time being wasted by people coming into an area they don't know anything about and it has been like this for 33 years. This is not consultation, it is something else.
- A: *John Nunn:* If the project went to Stage 3 it would trigger an environmental assessment and would include establishing the terms of reference and a whole range of impact studies and there will be further opportunity to provide input and it is important to note that consultation will continue throughout the process.
- A: *Andrew Watson:* In an earlier consultation we did consult on the highway re-alignment, clearing the reservoir, housing worker, construction materials and impact lines, etc. and we have been bringing those results out.
- Q: *Rosaline Ward:* Under environment that is associated with the socio-economic issue - I would think it should be a study on its own? Has the baseline study on the socio-economic been started?
- A: *Hugh Smith:* The way the environmental assessment process works is that environment is all inclusive and includes fish and wildlife and people and infrastructure and the economic community and we are more or less following the framework of an environmental assessment process. There is a consultant working on this and it is fairly broad coverage and would include infrastructure and communities and what might be potentially altered by a project of this size, recreation is included, a creel survey is being undertaken, and there are surveys on the river use- over flights to see how many people are actually using the river. It also includes looking at other areas where projects of this magnitude may change values in the community. Work is also going on to upgrade some of the base information, for example, how the forestry resource is being used in the project

area, harvest levels and what are the jobs associated with it and this will form the basis for looking at change.

Q: *Rosaline Ward:* That work has been started already but what about the tourist industry?

A: *Hugh Smith:* That fits into the recreation component of the work and we will look at how many jobs in the community are supported by recreation, where are the trailer sites, what uses there are, etc. This is really a collection of inventory data and the study is not as advanced as, for example, the fisheries work has been going on for around seven years and some work related to water use planning and we have a solid foundation there to build on. The socio-economic work is in catch-up mode.

Q: *Rosaline Ward:* Do you feel specific attention should be paid to Hudson's Hope?

A: *Hugh Smith:* Yes, definitely/

Q: *Rosaline Ward:* How will you get the data?

A: *Hugh Smith:* It will be associated with records in current use, working with the various ministries; for example, Ministry of Transportation around transportation movements and data and other agencies that could be used to contribute and perhaps additional survey work.

Q: *Rosaline Ward:* Wouldn't that be one of your first steps? Talk to tourist places in the town? Find out the impact of construction on the community?

A: *Hugh Smith:* Yes, I agree that is all part of an important phase – there are construction impacts and operational phase impacts.

Q: *Rosaline Ward:* So people can expect to be contacted?

A: *Hugh Smith:* Yes and we have a socio-economic lead that I will speak to about your concerns.

C: *Rosaline Ward:* You need to get into this town and talk to people.

A: *Hugh Smith:* Sometimes it is difficult to know who to contact when you are not from this area.

C: *Rosaline Ward:* Well that is part of your research.

Q: *Dave Arbary:* My pet peeve is the road and I don't understand why you want to put a bridge across the widest part of the flooded area and where there are the two pieces of the most unstable part of the Halfway hill? When the water rises it will get more unstable.

A: *Andrew Watson:* Through the impact line work we will understand existing conditions and then we will look at the impact of the reservoir and beaching and erosion processes and stability changes. With respect to the road re-alignment, in the earlier studies they looked at the lower section however we are also looking at options on top but that would require a much larger structure because of the height required and I will take your comment – there are advantages of being low and using small causeways and they are less intrusive.

Q: *Dave Arbary:* If that hill slips again, at the Halfway, then the causeway won't be there. There is a fault line already existing in the area.

A: *Andrew Watson:* Yes, the Ache slide and we will be looking at risk and what mitigation could be put into place.

- Q: *Ross Peterson:* With respect to previous studies and slides it showed that they will slide again if there was a slide the tidal wave will be 50 feet over the top of the bridge and the Ministry of Transportation will recommend no stopping so that is a valid point about the bridge and that was in the studies before.
- A: *Andrew Watson:* The previous studies created a hydrologic wave model and some of the wave heights took that into consideration through a risk analysis and likelihood of it happening. So we will look at all those factors and look at the options around mitigating and putting in sufficient warnings to reduce risk.
- C: *Ross Peterson:* In 1973 there was no warning - we woke up to the slide blocking the river.
- A: *Andrew Watson:* There was no warning system in place back then and we could use that as an opportunity to warn of the risk.
- Q: *Lynda Peterson:* How do you warn people when your telephone has been out for two weeks?
- A: *Andrew Watson:* That risk would have to be seriously considered and the closer to the reservoir that risk would have to go into the analysis.
- Q: *Dave Arbary:* There are two unstable pieces and they tie into the upper Cache Creek road?
- A: *John Nunn:* We have updated the alignments from the 1982 work with present Ministry of Transportation standards and there may be further changes – we are in the very early stages of this project and we are updating earlier studies and nothing is cast in stone. Crossing the Halfway high up would require a very large concrete structure well above the valley bottom and you all know what happened with the Taylor Bridge and that option would have its own challenges.
- Q: *Dave Arbary:* You know that the Taylor Bridge moved?
- A: *John Nunn:* Yes, it was the anchor block that moved.
- Q: *Lynda Peterson:* As a follow up question, I want to know for how many years the valley will be shut down for recreation for the public.
- A: *Andrew Watson:* During construction the reservoir clearing could occur in a shorter time period although there are competing trade-offs associated with that and recreation would be one of them – it is a seven year construction period and there are various considerations and that is why we are asking for feedback and asking about the important considerations. We believe that we will look at various activities throughout that period. Once the reservoir is in we will look at the actual performance of banks versus predicted and we will be clearing of debris in the reservoir and for some years there may be restrictions.
- C: *Lynda Peterson:* I am hearing seven years and several years and several years and it sounds like a long time.
- Q: *Rosaline Ward:* I am thinking of the travel on that road and for several years there will be disruption for people travelling between Fort St. John and Hudson's Hope.

- A: *John Nunn:* Travelling between the towns is a different topic than reservoir preparation because reservoir preparation will have access roads and will not disrupt traffic on the road.
- C: *Rosaline Ward:* So you are saying that you think that logging the valley won't disrupt Hudson's Hope? That the logging trucks won't be problem on the highway – the logging trucks are already scary at times now and we are looking at several years of disruption. When the highway was being paved three or four years ago the word got around to the tourists not to come to Hudson's Hope because of the delays and that will happen again with your bridge access and people will not detour into Hudson's Hope even with the Bennett Dam if they can travel on the Jackfish Lake Road and get to Fort St. John quicker. It is a big thing that is happening.
- Q: *Gwen Johansson:* When you talk about monitoring - what are the costs of monitoring and warning systems and for how long? Are those costs in the Site C costs?
- A: *Andrew Watson:* Yes, the costs are in the overall Site C costs. BC Hydro does conduct on-going monitoring throughout the province.
- Q: *Gwen Johansson:* Did you not pay for the warning system in Hudson's Hope? I am interested in this because I would want to know if you do, if not why not and how long do you pay for the monitoring system?
- A: *Dave Conway:* While the Hudson's Hope warning system pre-dates me, and you might have a better idea when it was put in place, but it was installed prior to 2001 and it is my understanding that BC Hydro did not feel it should be in place but the District of Hudson's Hope did. Eventually BC Hydro agreed to put it in and that Hudson's Hope would maintain it. The warning sirens on the poles were too tall for the District trucks and so BC Hydro lent them the truck.
- Q: *Gwen Johansson:* With respect to the dislocation of wildlife I am wondering how you see Site C fitting into the overall industrialization of the northeast. Site C is only one aspect of that; there is the brand new development of oil and gas which has a very different effect and there is wind, agricultural and forest and intensive development - what is the procedure for seeing where Site C fits in, what is the accumulative impact?
- A: *Hugh Smith:* An accumulative impact will be necessary in the environmental assessment process and certainly if you look at the number of conservation data center species that are stressed in the region there are a number that will be moved and if we move into a process we will have to do that. Habitat species preferences will have to be looked at and we will have to consider the impact of this project and other proposed projects, for example, Dunvegan.
- Q: *Gwen Johansson:* With respect to the northeast generally are there lines of communication between other industries, etc. What human effects will there be?
- A: *Hugh Smith:* At Stage 3, if the project moves to Stage 3, then the federal and provincial governments would define the scope and terms of reference and it wouldn't be our decision on how broad we should look at that because that would be defined under the process by the regulators. Currently, we are not in

consultation with your example of the oil and gas industry as to what their plans are.

- A: *John Nunn:* Based on past experience the terms of reference will have to define the temporal area we look at, accumulative effects and the geographical scope and agencies have to approve that and consultation will be part of that. This is not defined by the proponent rather it is the agencies that will define the scope and establish the boundaries.
- C: *Gwen Johansson:* I don't have any comfort with that process around the environmental assessment review of BC Hydro.
- C: *Larry Peterson:* We were told last time, just let industry sort it out.
- Q: *Deborah Peck:* How do we encourage government to take in the accumulative effects because we need to look at the big picture?
- A: *Hugh Smith:* If we go to Stage 3, we would prepare a project description, and we submit that to the federal and provincial agencies and they would go through a process describing the temporal and spatial area coverage and that would be a publicly reviewed document and it would be made available for comment.
- Q: *Deborah Peck:* I would encourage BC Hydro to broaden the aspects of the terms because of the concerns raised in the open house that would be part of something and that would show actual consultation.
- C: *Facilitator:* It is a part of the record and will form part of the report that goes forward to government – so that recommendation you brought up will be part of that record, a very important part of the record.
- Q: *Hugh Smith:* Are you asking what the oil and gas industry's views would be on Site C, increased transportation required.
- A: *Deborah Peck:* Transportation yes that is one of them; fish and wildlife, forestry and they all feed into together, put it all together and see the effects and make it global.
- A: *Hugh Smith:* Like a regional management plan and this is the reason for an integrated management plan like we tried to do on the river - I take your point and will discuss it internally.
- Q: *Gwen Johansson:* It seems to me that the process is about getting to yes and not considering whether we should go at all. It seems as tedious to go forward as to go back and that point was made in the British Columbia Utility Commission process about the 5 stage process because there has been so much invested in it that this is leading to and you can't go back and that is what all these stages of approval are leading to.
- A: *Dave Conway:* With respect to the work, that is done for Stage 2, when you look at the amount of money and \$48 million is a lot of money but in the overall scope of \$5.1 – \$6 billion for the project if the best decision is to get off the project and not go further that is a good decision and that is why there is a recommendation and decision making process at the end of Stage 2.
- Q: *Gwen Johansson:* You have got a sheet on provincial and community benefits - how much money was spent determining the benefits of not going ahead?

- A: *Dave Conway:* We are determining information from local, regional and provincial communities about what those potential impacts are and what the potential benefits are and the consultation process was approximately \$5 million to gather your perspective and feedback and concerns.
- Q: *Gwen Johansson:* Will we get a report that shows the benefits on one side with the negative aspects on the other side and the costs of each?
- A: *Dave Conway:* I can't answer that question.
- A: *Cam Matheson:* We do that every time we file a long term plan with the commission – we put together a portfolio that contains all those things that are available to us at a given time and then we file with the commission and say this is what makes the most sense.
- Q: *Robert Bach:* You spend a certain amount of money to determine if a project is a worthy project and if that was the case and the project were abandoned would BC Hydro actually abandon the project and release the land back to the land owners? We have had this (Site C) over our heads for half our lives and it would be nice to get closure – would that be the case? Would a decision be made that this is not a feasible project and then say that we are not proceeding or will it go on?
- A: *Dave Conway:* There has been a flood reserve on the river for decades and we don't know what the findings will be but it is highly unlikely that we would give up the flood reserve. This is a potential resource option and highly unlikely we would give up a potential resource option.
- C: *Larry Peterson:* Is the flood reserve level 1555 feet? Or is it 1525 feet? I also asked about the Bennett Dam and Branham Ridge slide monitoring and no one got back to me. I still haven't got an answer.
- C: *Terry Peressini:* Branham Ridge has been monitored every year, they physically go out twice a year and survey it.
- A: *Andrew Watson:* I apologize for not getting back to you on that question because there was a response crafted but I guess that it didn't go out to you.
- C: *Larry Peterson:* That is what I mean about consultation.
- A: *Andrew Watson:* I apologize again, there is not a high risk associated with Branham Ridge but we do monitor it. There are slopes that are more unstable and we would monitor those constantly.
- C: *Larry Peterson:* This is not a consultation process.
- Q: *Lynda Peterson:* What is the definition of mitigation? Do you just pay money, how do you mitigate eagles, fish and the environment? Is extra power more important for the people in Vancouver or California?
- A: *Hugh Smith:* What is mitigation? There are two terms - mitigation and compensation and it is not in terms of cash. Mitigation is what we can build into a project to provide habitat or enhance habitat to provide a place to exist. For example, eagle nests and if impacted by reservoir clearing we would move the nests or provide alternative nests poles – we would mitigate.
- Q: *Lydia Peterson:* How do you convince eagles to move?

- A: *Hugh Smith:* It has been successfully carried out throughout the province for ospreys as well as eagles and we would move the nest when it is not in use. Mitigation includes scheduling – what time of year and when to avoid moving the nest. We know that the spring nesting period is most critical. If we are not able to build mitigation into a project then we would look at compensation programs and habitat improvements and carry out various programs to improve fish and wildlife.
- Q: *Larry Peterson:* A big eagle nest in a big tree could weigh half a ton, why bother?
- A: *Hugh Smith:* We are doing this elsewhere and if you have a huge tree it may not be possible to move the tree rather we would have to find alternate trees or put in a pole and build a platform for the eagles.
- Q: *Glen McTaggart:* At what point, in the past, did BC Hydro decide to shelve the project and why?
- A: *Dave Conway:* When it went to the BCUC¹ and it was not a staged approach.
- A: *Andrew Watson:* The comparison today would be Stage 4, an investment has made and then it was shelved. In the past BC Hydro didn't demonstrate the need for more electricity and there was not enough work done on alternatives.
- Q: *Glen McTaggart:* Has the work on alternatives being done?
- A: *Cam Matheson:* We do an exhaustive report on every energy alternative available and describe it in terms of units of energy cost and environmental impacts and then we put that together in a big report and model in straw portfolios and look at outcomes which are primarily based on reliability, cost, environmental attributes, risks of not getting permitting and eventually we decide on the right package of resource options to meet our customers needs and file with the regulator.
- C: *Glen McTaggart:* BC Hydro has the opportunity to put in meters, wind power and solar.
- A: *Cam Matheson:* Since about 2002 we have been acquiring power from the independent power producers – small hydro and Site C is the first time we have considered a large hydro project for a long time and right now the long-term plan is focusing on 80% conservation and the clean power call. We are trying to move in that direction with respect to energy.
- A: *Dave Conway:* I would also add there is the bio-mass energy call and we have a standing offer call for small power projects under 10 megawatts.
- Q: *Ross Peck:* It is a totally different world today with the financial markets and is this built into the process and the long-term acquisition plan because I would like to know where the new reality is with respect to new conservation and new technology particularly in relationship to the 2009 date and the recommendation to government?
- A: *Cam Matheson:* The long term acquisition plan is based on future electricity demands and we forecast that every year and we just completed an update last

¹ British Columbia Utilities Commission

week and received approval for and have revised up the data forecast and we will be filing that in an evidentiary update in December. As a result of the new demand forecast we will make changes to the long term acquisition plan based on the new indicators. With respect to the impact on conservation and acquisition of power; conservation – we believe we will have to revise the conservation plan over the next ten years and *Power Smart* is looking carefully at that. In the acquisition plan - we have signed agreements with independent power producers and with what has happened to the financial markets this has pushed some of them over the edge –we call it attrition and the numbers have been revised. So it is electricity demand, changes to the conservation demand and new world view, and attrition of the new independent power producer projects - those three things are the new things in the evidentiary update we will file with the commission.

C: *Ross Peck*: I get pushed both ways – is that evidentiary report available?

A: *Cam Matheson*: It will be filed and available on December 22nd.

Q: *Kim McTaggart*: In the review of alternatives you mentioned costs but you didn't mention environmental costs and the countries that are managing energy the most successfully are the ones that take risks and become industry leaders and for example, we have lost a huge solar potential because that project went to Germany and we are the losers. People that try for these initiatives have huge headaches and those needs should be addressed and discussed.

A: *Cam Matheson*: That is a very good point. Right now electricity costs on a retail level are as low as anywhere in the world and the government has seen that as a key competitive advantage in terms of attracting investment and everyone has been reluctant to let go of the low rates. We will be implementing a two tiered residential block metering and there have been a huge number of complaints because of the higher rates and those increases are in the range of \$5 to \$10 a month.

C: *Kim McTaggart*: No one will give up those low rates willingly but we have to 'bite the bullet' because this is a finite resource.

A: *Cam Matheson*: I agree. Your point about environmental impacts is also a good one because they don't get assessed on the same level as financial impacts. They don't get assessed on a level playing field.

C: *Kim McTaggart*: In Germany the thing that made it successful was that energy prices went up and that generated interest from the public to become producers and help.

Q: *Lynda Peterson*: I watched that same program the other night and in Germany and France they really conserve because they have all these solar panels and what they don't use goes into the grid and that causes them to become more conservative in their use. The other question is around financing and who are we in debt to?

A: *Andrew Watson*: The cost estimate would have a range of financing assumptions however no assumptions have been made on financing and that is one of the risks. Recently the Lower Churchill project was pushed out six to twelve months because of their concerns around accessing capital.

- C: *Al Peterson:* My comment is that I think the problem we face is that there is a real concern about further damming of rivers in this province and the alternative energy projects that are being looked at around the province are hit and miss and hodgepodge projects. The biggest problem in solving the energy crisis and the energy availability for the future for the government is with the change in its mandate from what was put in place in 2002 to acquire power from independent power producers; smaller operators, and they are all being done by little groups of entrepreneurs and we are not using the history and expertise of development of power that BC Hydro staff has, which is equal to any place in the world, and there needs to be a recognition for the mandate to change and for BC Hydro to be involved in alternative energy sources.
- Q: *Rosaline Ward:* This might sound petty after all of that – last year at the museum I halved our energy consumption yet I live opposite a hydro rental property where the house has had their outside lights burning for three days straight.
- A: *Glen McTaggart:* That is not the responsibility of BC Hydro – that is the irresponsibility of the person living there and unfortunately we live in a country where people waste money and resources and electricity is cheap. I have a house I rent out to Kiewit and that is not BC Hydro's responsibility
- A: *Dave Conway:* If you provide me with the information I will look into that.
- Q: *Bev Bach:* With all the oil and gas activity I am just wondering about the area that potentially will be flooded and if that has been looked into?
- A: *Hugh Smith:* That is something that we are currently looking at, the mineral rights that are associated with the reservoir area, to ensure that we are aware of all permits and gas lines and wells, etc in the area.
- A: *Andrew Watson:* The flood line reserve generally excludes others from having rights on it.
- C: *Bev Bach:* There is privately owned land and the leases were sold.
- C: *Dave Conway:* Thank you all for attending and providing feedback. BC Hydro is committed to including all of your feedback in the Stage 2 and if the project goes ahead there will be many other consultation opportunities.

The public meeting was declared closed at 9:20 p.m.

BC HYDRO SITE C PROJECT DEFINITION ROUND 2 CONSULTATION

FORT ST. JOHN

OPEN HOUSE

November 24, 2008

Notes from an Open House held with members of the public and representatives of the Site C Project Team on November 24, 2008 at the Quality Inn Northern Grand, Fort St. John, BC

PRESENT: Judy Kirk, Kirk & Co. Consulting Ltd., **Facilitator**
Dave Conway, BC Hydro
Siobhan Jackson, BC Hydro
Mina Laudan, BC Hydro
Cam Matheson, BC Hydro
Danielle Melchior, BC Hydro
John Nunn, BC Hydro
Andrew Watson, BC Hydro
Susan Campbell, Kirk & Co. Consulting Ltd. Recorder

Format: The record notes that the Open House commenced at 6:00 p.m. and participants were encouraged to view the story boards and use the opportunity to have one-on-one discussions with BC Hydro personnel. As well copies of the Discussion Guide were available. At 8:00 p.m. participants were gathered into an informal circle for a question and answer session.

The meeting was called to order at 8:00 p.m. There were approximately 71 persons present.

KEY THEMES:

- Participants felt that in addition to conservation, BC Hydro should be promoting and developing “green” technologies.
- Participants were generally opposed to the construction of Site C.
- Participants commented that the impacts from Site C would affect those who live in the Peace River region while the benefits would be for the Lower Mainland.
- Participants were concerned that recreation opportunities would not be available if Site C was built due to debris and instability of the banks.

1. Welcome and Introduction of the BC Hydro Project Team

Round table self-introductions were undertaken.

2. QUESTION/ANSWER/COMMENT PERIOD – Facilitator

The Facilitator noted that, the notes are not verbatim, but rather are detailed notes, which will form part of the consultation record, will be available on the project website once this round of consultation is complete and the Consultation Summary Report is published. The record will, as best it can, note who says what, as part of the detailed

meeting notes and that while every attempt has been made to secure the correct spelling of participant names and we apologize for any misspellings.

It was the intent of this session to allow participants time to question or comment on the project.

Dave Conway: BC Hydro

I want to reinforce that no decision has been made to build the project – we only have a mandate to be in Stage 2 and at the end of Stage 2, in the fall of 2009, BC Hydro will provide a report and recommendation to government containing consultation results, technical studies and updated financial information.

The following abbreviations will be used and mean: Q: Question, A: Answer, and C: Comment.

Q: *Ernie Reimer:* In the 80's when Site C was under consideration, I represented School District 60 on PAC, I was Superintendent of Schools for School District No. 60, and I remember the discussions well. Today 25 years later, I am still kind of alive and I canoe the Peace every year with my children and grandchildren and I am a lover of the Peace. My question is; I have lived through the first and the second dams and attended meetings for both and I remember all kinds of commitments, promises, from BC Hydro and politicians, promises that were made that the lakes would be wonderful resort areas for those of us on the Peace and somehow they never came to be. We still have all of the debris on Williston Lake and many of the things that were indicated have never come to be. So, can we believe you or not because I notice there are three pages in the Feedback Form about what we would like to see. Or, is it that you would like to see hydro for the southern residents of the province and that you are not concerned about the Peace residents?

A: *Dave Conway:* We understand that and it certainly predates me. There are a lot of things that we have heard about through the process called the Peace River Water Use Plan process in 2001 to 2003 and it is in place to address many of the things we heard about. The approach being taken for Site C was not there when the original WAC Bennett Dam was built, it is a different approach now and we would like to think we would live up to those commitments through the water licence requirements and the Office of the Water Controller for the Province.

Q: *Ken Forest:* The lower mainland uses over 70% of the province's power while generating nowhere near that amount. If Site C is built, over 40% of lower mainland power will be transported from this area to southern BC or for sale in the US. The power generated here will not be used here. Who would create a portfolio with over 40% of their stocks in one item? What happened to the idea of diversity of power generation close to places of use? Why is geothermal not even part of the provincial mind-set? I know that Hydro right now doesn't have jurisdiction. It appears that construction of Site C is being considered by the province, not for its Meagher 8% added generation capacity with greater than 10%

loss in power transmission to the south, but for the political power it wields, a continuation of the two rivers scheme involving the Columbia. It appears that there is provincial economic gain resulting from power export to the US. And the implication is that if we do not import power, we face brownouts. The beneficiaries of export are places like California, whose residents could care less about or don't know about flooded northern valleys, which provide their power. They are happy as long as they get the extra power needed to heat their hot tubs and run their air conditioning. It seems that the \$40 plus million allocated to Hydro for consultation and PR (public relations) in these rounds is having an effect, but some of the positives are suspect; for instance offering recreation on a Site C reservoir. Much of the reservoir will be off limits after construction for long periods of time. My rhetorical question is: the Energy Plan shows geothermal and hydro are comparable and wind is more expensive and as an aside, I would give accolades to the government for considering wind when it is more expensive than geothermal. In my opinion, flooding any valley is unconscionable and I think that the people that are going to do that should go and look in the eyes of people that have lived here for generations and generations, whether they are the First Nations or the pioneers that came in here in the early 1900's and say what we are going to do here is okay. I don't think it is. The loss of agricultural land and Class 1, Class 2 and Class 3 lands down there that could grow watermelons, cantaloupes and even plum trees and in the future if we don't have that, we have to bring it in from over 1,600 miles away. I think in the future that we will need those lands.

A: *Cam Matheson:* There is some geothermal potential in BC, it is not a huge amount of potential and there could be more, but BC Hydro acquires power from independent power producers. In 2002, the Energy Plan was created and it said that BC Hydro will not be developing generation resources for the province with the exception of large hydro attached to our heritage facilities and the Peace River being one. Since then we have had independent power calls using competitive bid processes and one geothermal proposal has come in, in the Pemberton area, and that one is going ahead. That is the only one so it hasn't shown up as cost competitive against the other resources being bid into the call such as wind and small hydro.

Q: *Sandra Hoffman:* We have already established, at the Taylor Open House, that BC Hydro is currently a net exporter as of their 2008 Annual Report. This doesn't seem like BC has a big need for power. In fact, the exports to the States are even higher than your reports suggest if you consider exports from others in BC. The Vancouver Sun had an article back in October about how the City of Nelson has cost the BC taxpayers about \$17 million this year as they have been getting power from you at cheaper industrial rates and exporting to the States for profit. Our domestic demand would be even less if we didn't have to supply energy for others to export. The 2008 Annual Reports said we imported 2,259 gigawatt hours to satisfy domestic demand. How much less would that be if it were not for Nelson's exporting and others potentially doing the same thing? Who else in the province is exporting energy to the States and how much are they exporting?

- A: *Cam Matheson:* Last year we were a net exporter and it was the first year in seven previous years. The bottom line was that last year was overwhelming in that we had a huge water year and because BC's system is about 90% hydroelectric, we depend upon mother-nature and with the heavy snowfall and precipitation last year it was exceptional and it was unusual. We became a very slight exporter last year. With respect to the City of Nelson, we have a commercial agreement with Fortis to provide electricity and they pass that onto the City of Nelson and the City of Nelson found out they could sell power into the market place. We are moving to rectify that situation; however, in the overall system it is a tiny, tiny fraction that makes no overall difference to the import/export situation but it is unfair and we are trying to address that issue through the regulator.
- Q: *Sandra Hoffman:* Are there others in the same position exporting to the States?
- A: *Cam Matheson:* Fortis is the other exporter and they sell power to the US and we believe they are optimizing their system and creating value for their ratepayers and to my knowledge no one is doing what the City of Nelson is doing. Most municipalities simply buy power from BC Hydro to satisfy their residents' needs but in the City of Nelson's case, they have a generating plant which is unusual in that sense and there is no one else that I know of that has one.
- Q: *Diane Culling:* In response to geo-thermal, in an article in *Canadian Business*, May 2008, the following was said: "The prospects for geo-thermal are perhaps less promising – at least with existing technology. Geothermal has been slow to catch on simply because the province for which it is most suitable, B.C., has been able to rely on cheap hydropower for decades." Another quote by *World Finance*: "Although geothermal energy is not growing at the same level as other technologies world wide the potential exists to generate a significant amount of the province's energy needs from geothermal resources." There are also other articles in the *Global Mail*, *Financial Post* – all the big guns. In a 2002 study by BC Hydro – BC Hydro identified 16 prospective geothermal sites for commercial development and at the high end of potential is South Meagher which is under construction for \$400 million and will create 40 permanent jobs and generate 180 megawatts of power and is within easy access to Vancouver. That is only one play in the geothermal field. So if BC Hydro wants job creation, energy and to diversity the power supply instead of having power come from a couple of river systems and having huge transmission losses they should look to geothermal. This is a huge opportunity for British Columbians.
- A: *Cam Matheson:* I agree that it is a good thing to diversity the system and geothermal does offer potential. We have been open to receiving bids from private producers around geothermal generation but there just haven't been any yet.
- Q: *Diane Culling:* I have spoken to a person at Western GeoPower Corporation and they advise that their biggest stumbling block was access to the BC Hydro grid.
- A: *Cam Matheson:* That is one of the things that keeps an independent power producer from being competitive and where those sites are located, there is enormous cost to attach to the BC Hydro grid. So if there are more competitive

bids out there, for more cost effective power, they are the ones that will get built. So that is probably right what that fellow said.

- Q: *Steve Roe:* Unless the tone or the substance of questions coming from the floor changes rather dramatically I think the kind of questions that BC Hydro is encountering right now are a sign that BC Hydro and Kirk and Co. have horribly, horribly mismanaged the consultation process. What you are hearing right now are questions that involve project acceptability and project justification. The project consultation on the project definition - that is wrong. I have a question; the feasibility review in the Stage 1 Report said multi-stakeholder groups would be struck and could you let us know the status of those?
- Q: *Judy Kirk:* When you say feasibility do you mean the Stage 1 Report?
- Q: *Dave Conway:* Could you explain a little more because I am not clear?
- Q: *Steve Roe:* It is the Stage 1 Report, Section 7 - Page 60 where BC Hydro proposes to establish multi-party consultative committees to inform consultation and the committees would include First Nations, interested stakeholders, government representatives and experts. The committees would be involved with issues such as fish, recreation and transportation among others.
- A: *Siobhan Jackson:* We have established technical advisory committees and have focused invitations to local, provincial and federal government agencies and First Nations. In this round of consultative process there have been many multi-stakeholder meetings and I believe you attended one previously.
- C: *Steve Roe:* From the comment in the feasibility review I was really hoping for more multi-stakeholder consultative committees like the people gathered here tonight and I don't think you have followed through on this aspect of the consultation process as identified in this document.
- Q: *Sandra Hoffman:* When I said before that you were not currently in export you implied that it was not representative but I would like to remind you what you said at a previous open house. You said you were a net importer 8 out of 12 years and then you said that it was 8 out of 13 years. It was also said at the Taylor Open House that domestic demand has been increasing but then why has the energy imported to meet the domestic demand, the energy 'gap', been decreasing since your 2005 Annual Report? It seems like we have been doing fairly well at meeting the increasing domestic demand given that the energy gap is still declining despite the rise in demand. This again doesn't show a big need for power and doesn't justify Site C.
- A: *Cam Matheson:* I don't understand where you got 8 out of 12 years and I am not even sure if that is true or not. From 2001 to 2007 we were a net importer of electricity and last year we had a high water year and that resulted in being a slight net exporter. Site C is not proposed based on the demands of one year and it is such a long time out to 2020 when it is proposed - that is a very long time. It is shown as a contingency resource in the long term acquisition plan and is not something that is needed right now based on the other resources we are putting in place. Overwhelmingly, those resources aren't supply side resources they are demand-side resources that are being put into place now and it is anticipated that

80% of new need, by 2020, will be met by conservation. That is what we are looking to and you don't look back two years and say are importing or are you exporting. Site C takes so long to build you have to look out 12 years and generally in the meantime we are acquiring energy from the independent power producers which we have been doing and will continue to do. We have three calls are out there right now and we have a mandate to continue to meet reliability for our customers and we will continue to acquire power to meet our customers needs but that doesn't mean that Site C won't be needed eventually in the future.

C: *Ken Boon:* I don't doubt that somewhere down the road we won't need this electricity but the bottom line is that building dams is archaic and with all the new technology out there it seems like a tremendous waste of money. The things that we could with that \$8 billion dollars, you want to spend on Site C, are overwhelming and I talked to you about this about a month ago. We should be putting solar panels on everybody's house, all tied into the grid and everyone contributing back to the grid. With a little bit of government and BC Hydro incentives that is where the future is. The Peace River district has contributed so much to the economy of this province - where will it ever stop? Sending this power down south with the resultant transmission line losses and then you might as well say that you are building Site C to replace that line loss down south and for that we are going to lose our valley just because of that.

Q: *Sandra Hoffman:* It is seems that our own real 'energy gap' is just at peak times during some of the winter months. Is there not something we could be doing to focus on 'shaving the peak'? What has been done on conservation measures such as 'time-of-use' rates?

A: *Cam Matheson:* That is a good question. The biggest and most concerning part is the peak and as the system grows the peak gets larger and you need resources that are capacity rich. That is what you are talking about when you talk about the 4 hour period on the coldest days of the year when the system of the province spikes upward - that is what we call the peak. It is about generating resources that are in the system and can be brought into the system to meet that peak demand and that is why Site C is very attractive because it is very rich in capacity. Wind and small hydro are great for annual energy but they don't give you the capacity you need to use to generate electricity when the system spikes up and we are concerned about the peak and the capacity of resources to meet that peak demand.

A: *Dave Conway:* BC Hydro is committed to a large initiative to replace or change out the existing meters and by doing that it will allow us to charge more during that peak period to move that peak or shape it. We need to shift the peak away and that is part of the demand-side management program which BC Hydro has committed to spending \$300 million on over the next several years.

Q: *Bruce Ross:* I have a series of questions and I would like the answers to be in simple 'yes' or 'no' answers. Who will build the dam, if you do build it?

A: *Andrew Watson:* BC Hydro and its contractors.

Q: *Bruce Ross:* Who are those contractors?

- A: *Andrew Watson:* That is too early to say, a procurement strategy has not been developed.
- Q: *Bruce Ross:* Will you build recreational facilities on Williston and any other dams you have?
- A: *Siobhan Jackson/Dave Conway:* Additional boat launching facilities will be constructed soon on Williston, there are two planned for 2009 and there are additional ones in other years. That was a result of the water use planning process where BC Hydro reviewed the environmental and social and financial options and based on outcomes, recreational facilities will be implemented.
- Q: *Bruce Ross:* So we will be launching boats on Williston next year?
- A: *Siobhan Jackson:* Yes.
- A: *Dave Conway:* I think it is two - we will have to check.
- Q: *Bruce Ross:* So that means river boats, etc.?
- A: *Dave Conway:* You are getting into a level of detail I am not familiar with however I will give you my business card after the meeting for follow up.
- Q: *Bruce Ross:* Is it true that Site C will be closed to boating because of erosion?
- A: *Andrew Watson:* After reservoir clearing and slope stabilization there will be full recreational use.
- Q: *Bruce Ross:* How long, within several years?
- A: *Andrew Watson:* Once the debris is cleared the reservoir can be used for recreational use and it is hard to give you an exact time period but a conservative estimate would be several years.
- Q: *Bruce Ross:* It is now 40 years since you dammed Williston and they still haven't cleared the debris on Williston Lake and to launch a boat requires a certain type of boat. So there are only two access points to this new lake you are building, is that true or false?
- A: *Siobhan Jackson:* I don't have a number right now but definitely there will be multi access points. For Site C we will be in consultation with the agencies and Technical Advisory Committees regarding the best boat access points and there will be boat launching points above and below the dam.
- Q: *Bruce Ross:* Pretend we are negotiating – you build the dam but you write on a piece of paper that you will be doing certain things. Will you be doing that?
- A: *Siobhan Jackson:* The Environmental Assessment Review process includes the Table of Commitments and is part of the permit that is granted by the Environmental Assessment Office. There will be conditions around usage - boat launching and access is regulated by the Water Controller.
- C: *Bruce Ross:* History says you won't build what we would like to have.
- A: *Siobhan Jackson:* The Environmental Assessment Review process, federally and provincially, was developed in the 1990's and is the process we are required to follow today. The plans will be measured against the Table of Commitments and the water licence will set out requirements that we will be required to follow.
- Q: *Bruce Ross:* Do you promise to do a better job than what you did last time?
- A: *Siobhan Jackson:* The environmental assessment processes today are driving that for every project in the province.
- Q: *Bruce Ross:* This is a yes or no question.
- A: *Siobhan Jackson:* We have confidence in the processes that are in place today.

- Q: *Bruce Ross:* Is your answer yes?
- A: *Siobhan Jackson:* The answer is yes.
- Q: *Bruce Ross:* Is it true that the reservoir will be fenced?
- A: *John Nunn:* No.
- Q: *Bruce Ross:* Is it true or false that the estimated life of reservoir is now only 30 to 50 years?
- A: *Siobhan Jackson:* False.
- Q: *Bruce Ross:* At times the river will be affecting boating on the Pine River, how is that possible?
- A: *Siobhan Jackson:* That is false.
- Q: *Bruce Ross:* Will the trout spawning areas be affected by the project?
- A: *Siobhan Jackson:* False. With respect to the upper tributaries, studies show that the spawning is in the upper reaches in the tributaries and won't be affected.
- Q: *Dave Conway:* Could we have some clarification on the upper tributaries?
- A: *Siobhan Jackson:* The question was whether spawning areas for the trout would be affected by the project? The studies that we have done both in terms of fish movement tracking and tributary studies to understand the different habitat show the spawning habitat in the upper reaches outside of the reservoir area and in the downstream area such as the upper Pine and Moberly.
- Q: *Bruce Ross:* Little or no fishing for these 10 years, is that possible?
- A: *Siobhan Jackson:* No, fishing will be available in the reservoir and there will be fish caught throughout the life of the reservoir.
- Q: *Bruce Ross:* Will there be good fishing prior to 10 years?
- A: *Siobhan Jackson:* Data across Canada show that reservoirs are very productive in their early years and fishing would probably be very good.
- Q: *Bruce Ross:* At the Williston, once the dam was established, the fishing (walleye) was great for 3 to 5 years then it died off, or maybe I turned into a poor fisherman?
- A: *Siobhan Jackson:* A lot of questions try to compare Williston to Site C and it is a very different system and it is not the right body to compare Site C to. We will look at Revelstoke, for example, as it is more similar in operation and size. Williston is a storage reservoir versus a much smaller reservoir and we will look at what is relevant for the biology comparisons and look at those to understand what the species mix will be as the new aquatic system reaches its normal state. The changes in the early years won't be indicative and we will be managing for the long term species mix in a reservoir system.
- Q: *Bruce Ross:* Would you be dredging for Site C?
- A: *John Nunn:* There are no plans to dredge.
- Q: *Bruce Ross:* Is \$8 billion the approximate cost for Site C?
- A: *Siobhan Jackson:* It was estimated between \$5.1 to \$6 billion in the Stage 1 Report and at each stage of the project the cost will be updated which is normal practice for a project of this type.
- Q: *Bruce Ross:* Will you be using BC Hydro taxpayers' money?
- A: *Andrew Watson:* It is BC Hydro ratepayers and will be owned and financed by taxpayers.

- Q: *Bruce Ross:* Once the dam is up and running - will the profit that comes off Site C go directly to paying off the debt of Site C?
- A: *Cam Matheson:* BC Hydro always carries a debt to equity ratio in our system and we never actually pay that off the amount of debt we have in the system, we continue to carry it every year and that is the mandate from the government to continue to carry that. Site C will be financed by ratepayers in the system, that is how it will be paid for, but as to how it will be paid off, the debt will go into the BC Hydro debt ratio and the debt will be paid down until the ratio is in equilibrium like the system we have now. The system has a debt equity ratio of approximately 80% debt and 20% equity.
- Q: *Bruce Ross:* So you are broke in other words. What benefit do you see to northwest BC from Site C?
- A: *Dave Conway:* From a benefit perspective we have been asking, in the consultations, round one and round two, what that benefit might look like to you. We know that, from a project perspective, Site C will be a long term resource that will provide firm dependable energy into the system, however, something that is local and regional in nature we are asking you.
- Q: *Bruce Ross:* Personally, there is no benefit to me. What will happen now – are more meetings planned? What is actually going to happen in this process?
- A: *Dave Conway:* This is the last of the open houses and we done about 25 stakeholder meetings throughout October and 7 open houses in Round 2 and we did about 35 stakeholder meetings in Round 1 with 10 open houses. Feedback can continue to be provided until November 30th and there are lots of options to get that feedback in. We will provide a report at the end of Round 2 about what we heard and ultimately we will provide a report with a recommendation to go to Government, fall/winter 2009, about what we heard in consultation, with updated technical information and updated financial information.
- Q: *Bruce Ross:* At that point will there be more consultation?
- A: *Dave Conway:* The report goes to government and they will determine whether we go ahead.
- Q: *Bruce Ross:* Who makes the decision to build or not build?
- A: *Dave Conway:* Government makes the decision whether we move to the next stage of the five stage process and that is the regulatory stage, the environmental assessment process. All the regulatory processes have consultation built into them.
- Q: *Bruce Ross:* At the end of the day, the government of the day will decide whether or not?
- A: *Dave Conway:* If we move to Stage 3 the environmental assessments will require a certification of authorization to move head.
- Q: *Bruce Ross:* At the end of the day is it the government?
- A: *Dave Conway:* Yes, it is the government that will decide if we move to the next stages.

At this point, 8:57 p.m., approximately 25 persons entered the meeting to protest Site C and to support that position they conducted a brief skit. They stayed approximately five minutes.

- Q: *Jim Collins:* This type of consultation process, I don't find all that useful and I would like to refer you to what the Ministry of Petroleum Resources is doing with respect to the oil and gas industry and other stakeholders (agriculture, wildlife, environment, etc.) in the Peace River. We have met for a couple of years to discuss issues between the two parties and it is working very well and that concept could be used by BC Hydro to consult with the stakeholders in this area. What incentives are being provided to alternative energy sources? We know we have relatively cheap electricity and how are you encouraging alternate sources of electricity such as wind, geothermal, etc.?
- A: *Cam Matheson:* We don't have specific incentives in that sense - when we go to the private sector, we put out bids to get energy into the system to provide customer reliability and the lowest cost of electricity. We have a clean power call out that we are managing right now, and it is around clean and renewable energy. The ones with the best values get long term contracts and build facilities and this is how it operates.
- Q: *Jim Collins:* It is my understanding that your costs are in the range of two to three cents an hour with retail cost at about 6 to 7 cents per household. Is that not an incentive? What does wind cost?
- A: *Cam Matheson:* Wind projects in the last call were more like 9 cents.
- Q: *Jim Collins:* What would Site C cost?
- A: *Cam Matheson:* It is considerably lower than wind and that is what makes Site C attractive - it is the unit cost. The unit costs are considerably cheaper than wind or small hydro.
- C: *Oliver Mott:* I have issues with the technical details but my overriding concern is with respect to the global question - looking out over the last 200 years or over my father's lifetime and my own lifetime, the surface of the globe has been scraped away for development and this dam is one more nibble of the natural environment. It is absolutely criminal to proceed with this development and I would like to think we are leaving the future for your and my children. Examine your consciences because you are taking part in the destruction of this natural world.
- Q: *Brian Ruddell:* I am with the North Peace Clean Air Association and we were investigating the effects of the OSB plant on the City of Fort St. John's airport and we concluded it has affected the airport and we recognize now that Site C will add moisture content in the valley and will affect the airport through fogging issues. With respect to the Stage 2 studies I see you are putting instrumentation in the valley only and that is a gross oversight because we need full readings of the entire air shed of Fort St. John and Taylor. The reason for that is that we have a condition called inversion and when that happens the amount of moisture from the present river and the amount of condensation and particulate matter that is being generated through the industry, builds up in the valley and overflows from the valley and is guarded by weather conditions on the south side of the river and that pushes the condensation into the City and this is a fact and proven through the

OSB situation. While the OSB has done some good work it is not an entirely good job and we need to take this into consideration. The air shed of Fort St. John and Taylor needs to be protected and you need to take that into account through proper readings and you aren't taking proper readings in your proposed studies.

A: *Siobhan Jackson:* We have just brought air climate monitors onto the consulting team and we will take readings outside the valley and we will follow up on your concerns.

C: *Brian Ruddell:* Thank you very much.

Q: *Ava Malcolm:* Is BC Hydro as a company, regarding the devastation that will occur from Site C if it happens? Are you promoting any energy conservation to stop it from happening because if you do then we won't need it?

A: *Cam Matheson:* That is a good question. We are, we have filed a long term acquisition plan with the British Columbia Utilities Commission and out of new need required by 2020 about 80% of new need will be met through energy conservation. In the past we did a forecast of future supply and then we built new facilities to meet that need however, now we are meeting the vast majority of new demand through conservation so it is quite different. Conservation is the biggest thing in the long term plan.

Q: *Sandra Hoffman:* Methyl mercury is obviously a concern in creating a reservoir since you will be flooding an area covered in organic matter. I know there has been talk about clearing first in order to minimize this problem but of course only so much can be done from a practical standpoint. I read in your Fish Movement and Population Status 1989 report that the mercury analysis of fish tissues gave mean mercury readings of 0.21 methyl mercury/wet kg for bull trout, 0.15 for walleye and 0.11 for turbot. This is significantly higher than the current water quality guidelines from BC's Ministry of Environment which states the concentration of methyl mercury in fish tissue consumed by wildlife should not exceed 0.033 methyl mercury/wet kg. Have more recent studies been done yet to see more current levels? If the levels are significantly elevated prior to Site C then adding another dam, which would further increase levels, is cause for concern. I know that the methyl mercury levels will peak and then slowly come down again but what is the timeline for that to occur?

A: *Siobhan Jackson:* I can't recall all those figures that were so quickly read out however during the current stage we are doing a few things that will contribute to the baseline information – we are collecting water quality data to see present mercury levels in the natural soils and organics and we are taking fish tissue samples to understand current levels within the fish. Generally the reason for a methyl mercury assessment is about human effects and we need to understand consumption and potential for human health concerns and the numbers for human health are different from the ones that you just read. There will be methyl mercury studies done and understanding that will be part of Stage 3. Generally the organics will be quite low and we will look at the most relevant data based on 30 years of learning in science. The timeline is that the studies will take place in

Stage 3 and right now we are collecting background information and doing a reservoir profile to understand the sediments and how those processes will occur. The assessment will be done in Stage 3, if the project proceeds.

- Q: *Diane Culling:* I would like to add some clarifications and then I have some questions. The *International Herald Tribune* had an article comparing existing geothermal with other renewable energy and the source was the International Energy Agency. Geothermal is in the 2 to 12 cents range and hydro was in 2 to 16 cents range – just to clarify that. Siobhan (Jackson) on the issue of spawning perhaps you are right about the actual spawning sites but migratory bull trout, which move from Alberta to the Halfway River, will be impacted. There are spawning impacts to their migratory routes. How many years was Dinosaur Lake closed for fishing?
- A: *Siobhan Jackson:* I don't know if it was and I don't know the answer.
- Q: *Diane Culling:* It was closed for several years. That site was obviously more stable than the proposed Site C. After it was opened to the public it was closed for issues of potential sloughing. Can anyone tell me how long that was?
- A: *Dave Conway:* I hadn't heard that it was closed because of potential slides but I am aware there is potential for one however we do monitor it closely on a continual basis.
- Q: *Diane Culling:* It was my understanding that the potential was there prior to construction?
- A: *Andrew Watson:* I know that it was investigated at the time and it is monitored. I can get back to you on that.
- Q: *Diane Culling:* On that note of getting back, these questions are being asked publicly and I would like public answers and with respect to any question asked tonight there is no option for a public answer because the process is all over tonight. When will the printed transcripts be available?
- A: *Judy Kirk:* Approximately mid February when the consultation summary report is done.
- Q: *Diane Culling:* Looking at BC Hydro's need - has it been looked at to widen the mandate so that they can create other alternates other than large hydro, is that an option or is it outside the mandate?
- A: *Dave Conway:* It is outside our mandate. The policy is in the BC Energy Plan and we are here to make a report and recommendation for Site C.
- C: *Diane Culling:* Is there no option for Bob Eldon to have a beer with the Premier and talk about this? This is obvious, from this whole process, that everyone is coming forward and saying we need to look at this. So this needs to be part of the process and while I understand your point, this needs to be part of the whole process. We want you to meet our needs but we want 21st century options not 20th century options. At the last multi-stakeholder meeting there were comments to have road access across the dam and the comments were supportive but these people were asking for a bridge across the river.
- C: *Ken Forest:* I have a comment and I am likely speaking to those that call this place home. For many people this is not their home, they parachute in make a

quick buck and then get out. In 1958 I read a book about the Peace River and I thought I would like to live there. In 1967 I touched down here and I said that I was going to live here. It was the river, the valley and the people. In 1972 I came up with my wife and we toured the Peace and we turned all our job offers down to come here and we are still here and we didn't come here to live on the banks of a reservoir called 'Campbell' or 'Neufeld'. We came here to live on the Peace River and we are still here. There are people here who are hoping the dam will come and I understand this and then they will make a lot of money and take, take and take and they don't care about the valley, country or the people here. I don't put a price on this valley and I do not want to negotiate what we can get for the valley. How much are your children worth? In reality you cannot put a value on your children because they are valueless and we aren't looking for a camp of 1,500 people with all the drug, traffic and problems that it will bring. We are looking for a quality of life that this river gives us and I don't know if that is in the BC Hydro equations.

- Q: *Timothy O'Connor:* Has long has BC Hydro been producing power for British Columbia?
- A: *Cam Matheson:* BC Hydro was created out of previous hydro companies – in 1957 it was made into a crown corporation.
- Q: *Timothy O'Connor:* When did it start exporting power for profit?
- A: *Cam Matheson:* Profit is a bit of a hard word because we export power to optimize the system we have so that we can keep our rates for our ratepayers low.
- Q: *Timothy O'Connor:* What about the transmission lines?
- A: *Cam Matheson:* They are owned by the Province of BC.
- Q: *Timothy O'Connor:* We own them so they could be sold off, what is the interest on 80% debt?
- A: *Cam Matheson:* The interest is hedged in a bunch of different ways and there is no one answer to that.
- Q: *Timothy O'Connor:* We don't really have a secure crown corporation rather we are running a very high risk operation?
- A: *Cam Matheson:* That isn't a correct thing to say. We produce electricity for the ratepayers of the province and we pay some of the lowest rates in the world and we have the highest reliability rates in the world and I am not sure what you mean when you say it is not a secure company.
- Q: *Timothy O'Connor:* In this massive financial downturn will BC Hydro have to be sold off?
- A: *Cam Matheson:* I don't think that BC Hydro will be sold off. Why don't you ask the provincial government that question?
- C: *Timothy O'Connor:* What about BC Rail - that was sold? You are running too high a debt ratio to produce reasonable power and I don't think it should be left in BC Hydro's hands.
- C: *Sandra Hoffman:* I am very frustrated; as I am sure you must be too, since I feel, along with many others, that we should be focussing on 'green' renewable energies such as geothermal, wind and solar. In addition to conservation, we

should be promoting and developing these 'green' technologies but in a sense we are talking to deaf ears, through no fault of your own, but because of your mandate from the current government. It seems all we can do is encourage you to do more of this and hope that the independent power producers keep it 'green'. In effect, your hands are tied behind your back by the provincial government and personally I hope this becomes an election issue next year. Maybe if it was in your hands then geothermal would have been developed already as we are obviously not utilizing the potential that we have in BC. Thank you.

C: *Stan Gladysz:* One situation I would like to see, and I am not against Site C, however I would like to see it lowered to the Halfway Bridge and then it would be retained where it is. If it was lowered then the damage to erosion and farmland would be minimal and we would still be able to produce a fair bit of power. Also there is a canyon near Alberta that is available if you need more energy.

C: *Dave Conway:* Thank you for your comments and concerns. Your information is very important to us and will make up part of the final report to government and we are committed to including it along with the updated technical and financial information. There has been no decision to move to Stage 3. Thank you for coming.

3. The public meeting was declared closed at 9:20 p.m.

