NEED FOR SITE C

While the demand for electricity fluctuates year-to-year, BC Hydro forecasts that B.C.'s electricity needs will grow by almost 40 per cent over the next 20 years, driven by a projected population increase of more than one million residents and economic expansion. An emerging Liquefied Natural Gas (LNG) sector and growth in the use of electric vehicles would further increase demand in the future.

As extensive as BC Hydro's electricity supply is, it will not be enough to meet B.C.'s long-term electricity needs, even with BC Hydro's ambitious conservation programs that are targeted to meet at least 66 per cent of future electricity growth. That's why BC Hydro is re-investing in its existing assets and building the Site C Clean Energy Project.

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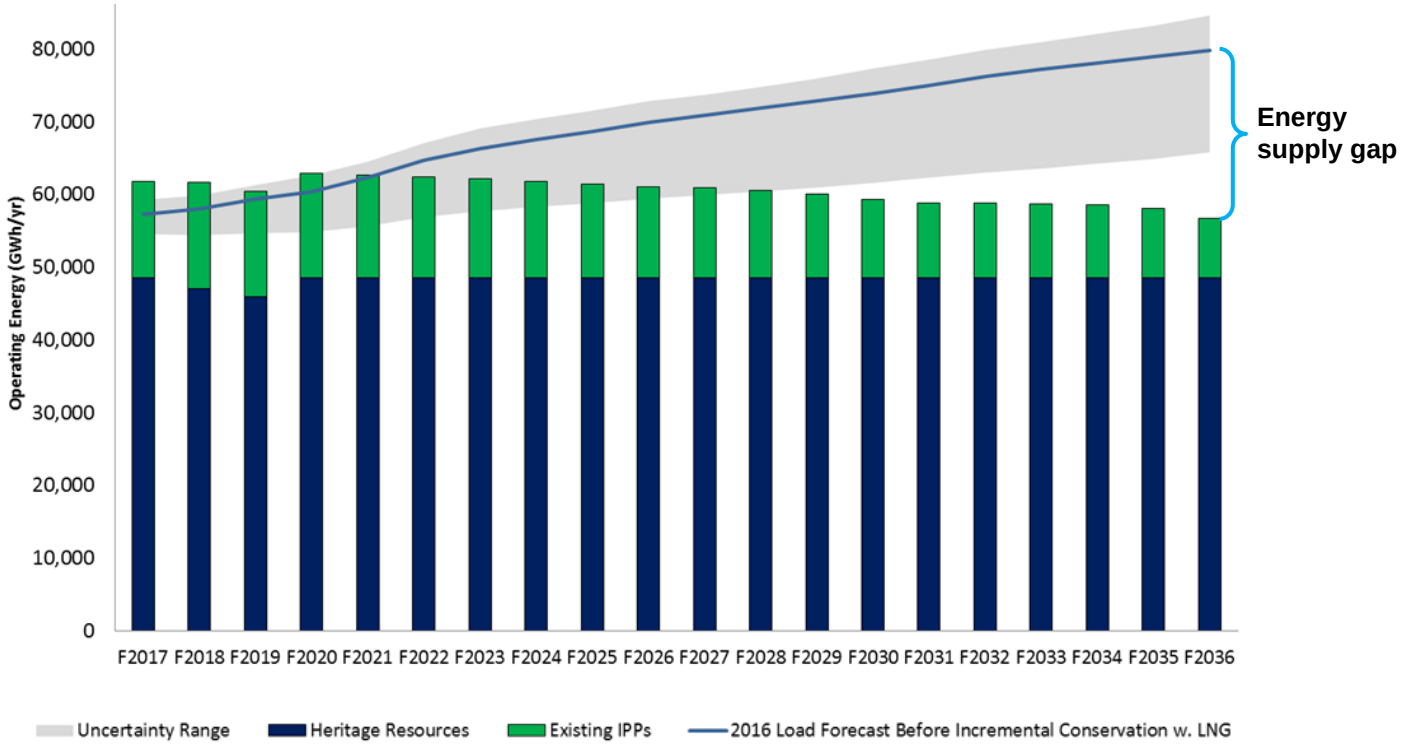
Site C will provide an important source of both energy and generating capacity for the BC Hydro system (*energy* is the total amount of annual electricity that a resource provides, while *capacity* is the highest amount of electricity that a resource can reliably supply at a given point in time — such as a cold winter evening when electricity demand is at its peak).

Without Site C, British Columbia would have a capacity deficit of 8% and an energy deficit of 2% in 10 years. This is equivalent to the power needs of 100,000 homes.

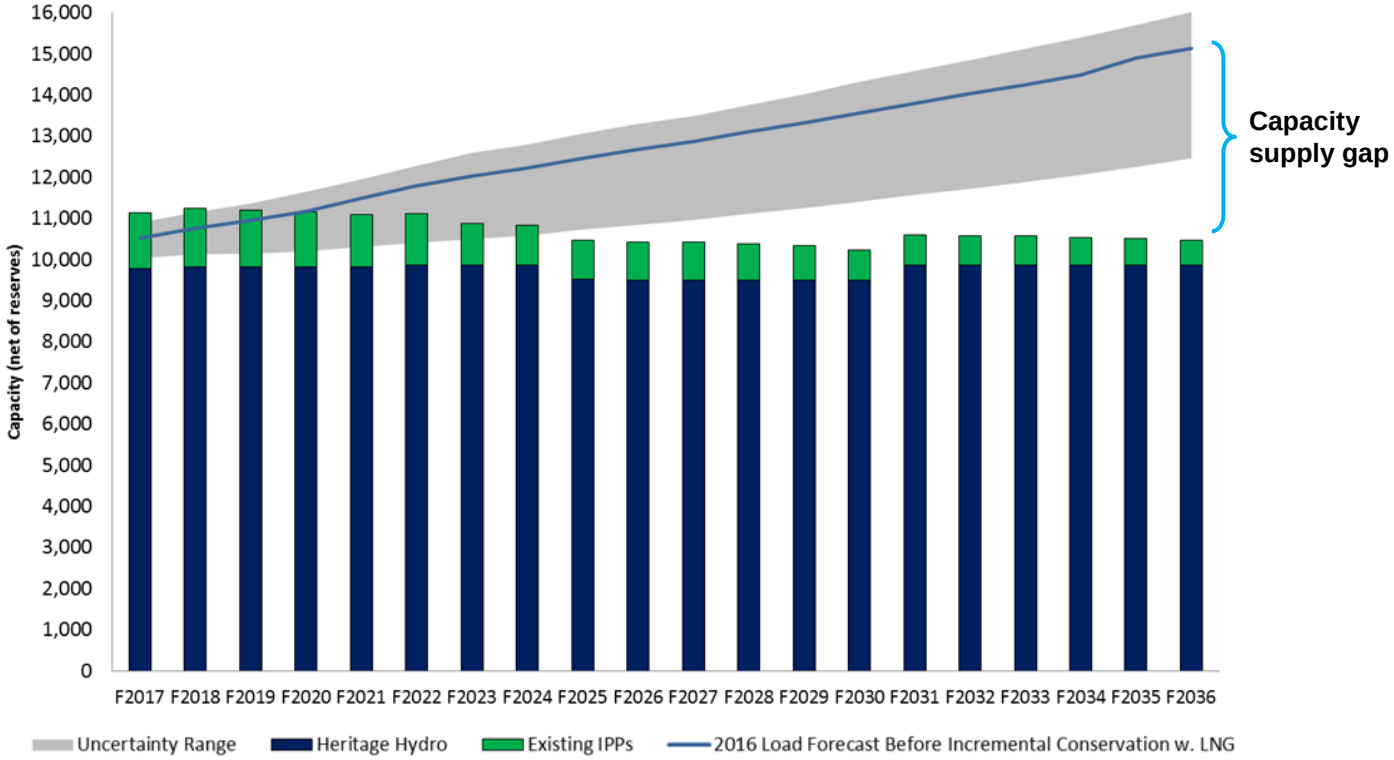
Long-term need for energy

Without new resources



Long-term need for capacity

Without new resources



Large hydro advantage in meeting future electricity needs

BC Hydro requires both energy and capacity to meet the long-term electricity needs in B.C. This is very important in understanding how BC Hydro plans its resources for the future.

Many smaller renewables, such as wind, solar and run-of-river hydro, are intermittent. This means they are not always available to generate electricity (e.g., when the wind is not blowing, the sun is not shining or the river is not running).

While intermittent resources provide energy for the BC Hydro system, they do not provide dependable generating capacity and may not be available at times of peak demand. As a result, intermittent resources are not a cost-effective alternative to Site C, as they would require additional capacity resources be built for backup (e.g., pumped storage).

During the environmental assessment process, an independent Joint Review Panel concluded: *"Site C would be the least expensive of the alternatives, and its cost advantages would increase with the passing decades as inflation makes alternatives more costly."*

Once complete in 2024, Site C will provide clean, reliable and affordable electricity in B.C. for more than 100 years.