

BACKGROUND

Powering British Columbia's future with Site C

Site C will provide clean, reliable and affordable power for the next 100 years.

Once the project is complete, Site C will provide:

- 1,100 megawatts of firm capacity;
- produce about 5,100 gigawatt hours of clean electricity each year; and
- the equivalent energy needed to reliably power about 450,000 homes or 1.7 million electric vehicles per year in British Columbia.

Clean, reliable power source

British Columbia is fortunate to have a large, hydroelectric system where 98% of the electricity generated on average is clean. The province's hydroelectric resources also allow BC Hydro to ramp electricity generation up and down as required to meet the demand of customers.

Relying too heavily on intermittent energy resources, such as wind and solar, can create challenges as these resources are not always available (i.e., the sun does not always shine, and the wind does not always blow). Intermittent resources cannot be ramped up or down to meet demand at any time like hydroelectric resources.

At times when B.C.'s clean resources are not needed for BC Hydro's customer needs, Powerex, B.C. Hydro's wholesale electricity marketing and trading subsidiary, can earn additional income by trading BC Hydro's surplus capability with B.C.'s neighbours, which supports the affordability of the BC Hydro rates.

Electrifying B.C. and moving towards a low-carbon economy

British Columbia will require significant amounts of clean, reliable power to electrify the economy and meet its climate targets. Many sectors of the economy – across buildings, transportation, and industry – still rely on fossil fuels.

As more and more daily activities like driving, heating homes and producing industrial goods switch from fossil fuels to clean electricity, carbon emissions are reduced, making the province less polluting and more efficient. British Columbia will need resources like Site C to meet this increasing demand for electricity to meet its climate targets.

Recent modelling from the Ministry of Environment and Climate Change Strategy indicates that B.C. will require an additional 9,040 gigawatt hours (GWh) of additional energy by 2030 and 47,590 GWh by 2050 to achieve B.C.'s climate targets.

Contact:

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