



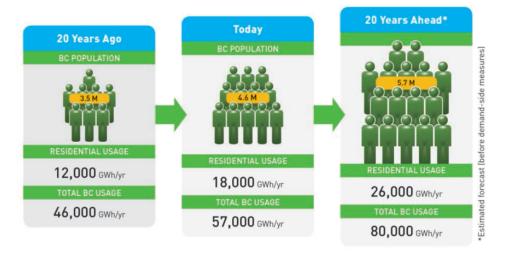
BACKGROUNDER GROWING DEMAND FOR ELECTRICITY

A Growing Population and Economy

Over the next 20 years, British Columbia's population is expected to grow by more than a million people. As our population grows, we are also using more power than ever before because of devices like smartphones and big screen TVs, and emerging technologies like electric vehicles.

At the same time, there is new activity expected in the mining, oil and natural gas sectors. In fact, long-term demand will increase across all customer groups.

Taken together, this means B.C.'s electricity needs are forecast to increase by 40% over the next 20 years.



Conserving First

To meet this future need, BC Hydro will continue its ambitious Power Smart programs, taking every step possible to avoid building new generation facilities. This will keep costs down and rates low.

In fact, BC Hydro is planning to meet 78% of new electricity needs through conservation and efficiency initiatives by 2020. This means BC Hydro is planning to meet only 22% of expected load growth with new supply.

BC Hydro will continue to offer incentives to help homeowners, businesses and industrial customers become more energy efficient and lower their electricity costs.





A Conservative Forecast

With ambitious Power Smart programs, the actual increase in demand that will need to be met with new resources is about one per cent per year. This is lower than historical growth and in line with the Canadian National Energy Board forecast for Canada as well as forecasts in other North American jurisdictions.

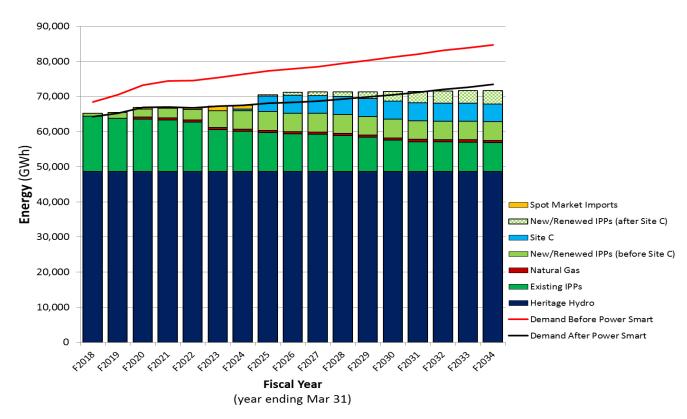
A Mix of Resources to Meet Future Demand

BC Hydro is investing \$1.7 billion per year to maintain and expand its existing system, including upgrades to maximize the capacity of current facilities.

In addition, the amount of power provided by the independent power industry continues to grow as projects under construction come online, existing contracts are renewed and new projects are developed through BC Hydro's Standing Offer Program.

With all of these steps, British Columbia will still need a new source of energy and dependable capacity – Site C.

Meeting Demand Through a Mix of Resources



Need for Both Energy and Dependable Capacity

Electricity systems need both energy and dependable capacity. Some energy resources, such as wind or run-of-river, are intermittent which means they are not always available to generate electricity (e.g., when there is no wind or when rivers are not flowing). This means they must be backed up by dependable capacity which is always available.

Hydroelectric dams with storage, like Site C, are a key source of dependable capacity because water can be released when needed or stored to be used later to when demand is high, such as on a cold evening in winter.

Site C will provide 1,100 megawatts of dependable capacity, and produce 5,100 gigawatt hours of clean energy every year — an eight-per-cent increase in supply to the system. The dependable capacity from Site C will increase the amount of intermittent energy, like wind, that BC Hydro's system can support going forward.

Due Diligence

As part of the due diligence process, a third-party review of BC Hydro's load forecast methodology was commissioned from an independent energy consultant with over 30 years of experience in load forecasting who concluded that:

- "BC Hydro is using state-of-the-art methodologies for forecasting sales.
- "The company utilizes several methodologies to produce peak forecast methods, all
 of which are among state-of-the-art methods."

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Ministry of Energy and Mines and Responsible for Core Review

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