



British Columbia Utilities Commission Inquiry Respecting Site C

Executive Summary of the Final Report
to the Government of British Columbia

November 1, 2017

About the BCUC

Who we are

The British Columbia Utilities Commission (BCUC) is an independent regulatory agency of the Government of British Columbia that operates under and administers the *Utilities Commission Act*. The BCUC is quasi-judicial and makes legally binding rulings.

What we do

The BCUC's primary responsibility is the regulation of BC's energy utilities. In addition to setting rates, the BCUC regulates all franchises, privileges, and concession agreements granted to public utilities.

It is our mission to ensure that ratepayers receive safe, reliable and non-discriminatory energy services at fair rates from the utilities we regulate, while also providing utilities the opportunity to earn a fair return on their capital investments.



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Before:

David M. Morton, Panel Chair and
Commissioner

Dennis A. Cote, Commissioner

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Site C Final Report key findings

Schedule and budget

The BCUC is not persuaded that the Site C project will remain on schedule for a November 2024 in-service date. The Panel also finds that the project is not within the proposed budget of \$8.335 billion. Currently, completion costs may be in excess of \$10 billion.

The least attractive and most risky of the three scenarios

The Panel finds the least attractive of the three scenarios is to suspend and restart the project in 2024. The suspension and restart scenario adds at least an estimated \$3.6 billion to final costs and is by far the most expensive of the three scenarios. In addition, the Panel considers it the most risky scenario because, among other things, environmental permits will expire and that will require new applications and approvals.

Termination & remediation costs

The Panel finds the Site C termination and remediation costs to be approximately \$1.8 billion, in addition to the costs of finding alternative energy sources to meet demand.

Future energy needs forecast

The Panel finds BC Hydro's mid load forecast to be excessively optimistic and considers it more appropriate to use the low load forecast in making our applicable findings as required by the OIC. In addition, the Panel is of the view that there are risks that could result in demand being less than the low case.

Viable alternative solutions

The Panel believes increasingly viable alternative energy sources such as wind, geothermal and industrial curtailment could provide similar benefits to ratepayers as the Site C project with an equal or lower Unit Energy Cost.

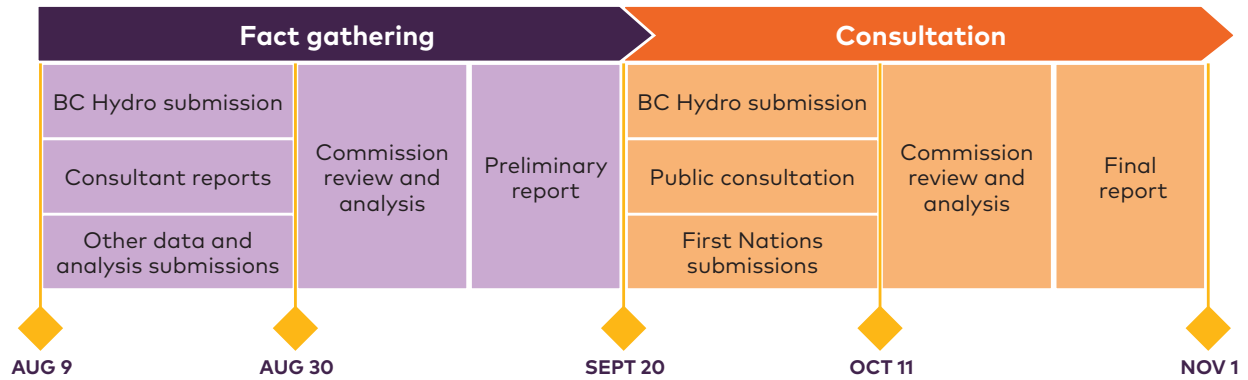
Risks to ratepayers

Neither completing Site C nor assumptions used in the Illustrative Alternative Portfolio are without risk. The Panel reviews the risk of each approach.

Community input sessions

The Panel held community input sessions around the province to gather feedback on its preliminary report and the questions posed in Order-in-Council (OIC) No. 244. All Sessions were open to the public and were live audio streamed through the BCUC's website.

The Site C Inquiry Process timeline



The Site C Inquiry Process included:



An analysis of the submissions received in the public community input sessions revealed that the highest frequency of comments and submissions fell under one of the following ten themes:



The likelihood of Site C being on time and on budget



The likelihood of Site C recouping its costs



First Nations concerns



Environmental concerns



Alternatives to Site C



Farmland/agricultural concerns



The impact on jobs



Financial impacts on ratepayers



The future demand for electricity



Social and other unquantifiable costs

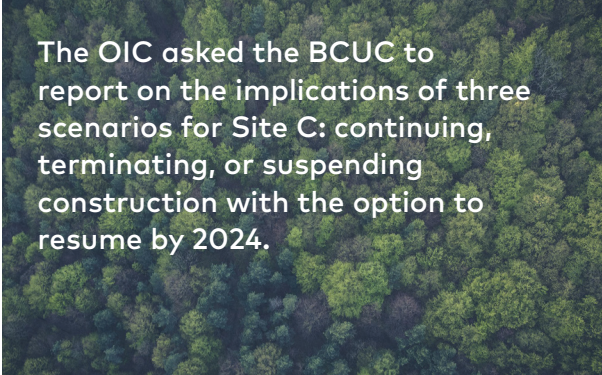
Report conclusions

On August 2, 2017, the Provincial Government issued an Order in Council (OIC) No. 244 requesting the BC Utilities Commission undertake an inquiry into certain aspects of BC Hydro's Site C project. The OIC asked the BCUC to report on the implications of the scenarios — continuing, terminating, or suspending construction with the option to resume by 2024.

In addition, we were specifically asked what the costs are to ratepayers of the suspend and terminate scenarios.

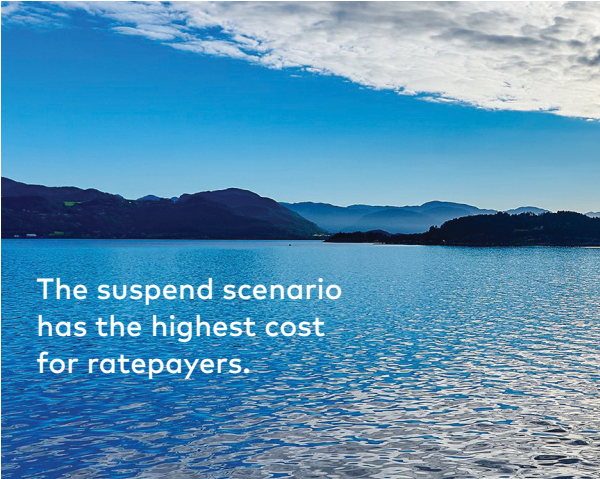
We were also asked, given the energy objectives set out in the Clean Energy Act, what, if any, commercially feasible generating projects and demand side management initiatives could provide similar benefits to ratepayers with an equal or lower unit energy cost as the Site C project.

In order to provide a fulsome response to the questions laid out above, we have also considered the costs to ratepayers of completing Site C.



The suspension scenario

The suspension scenario results in the highest cost to ratepayers as well as various other implications. The cost of putting the Site C project in a state of suspension, awaiting future remobilization in about five years, would be just as costly as terminating the project. In addition, there are the remobilization costs and the costs to complete the project beginning in 2024. There is no certainty that the remaining project budget would be adequate to complete the construction following remobilization in 2024. Contracts would have to be retendered and First Nations' benefit agreements may have to be renegotiated. Environmental permitting would have to begin anew upon resumption of construction.



The completion scenario

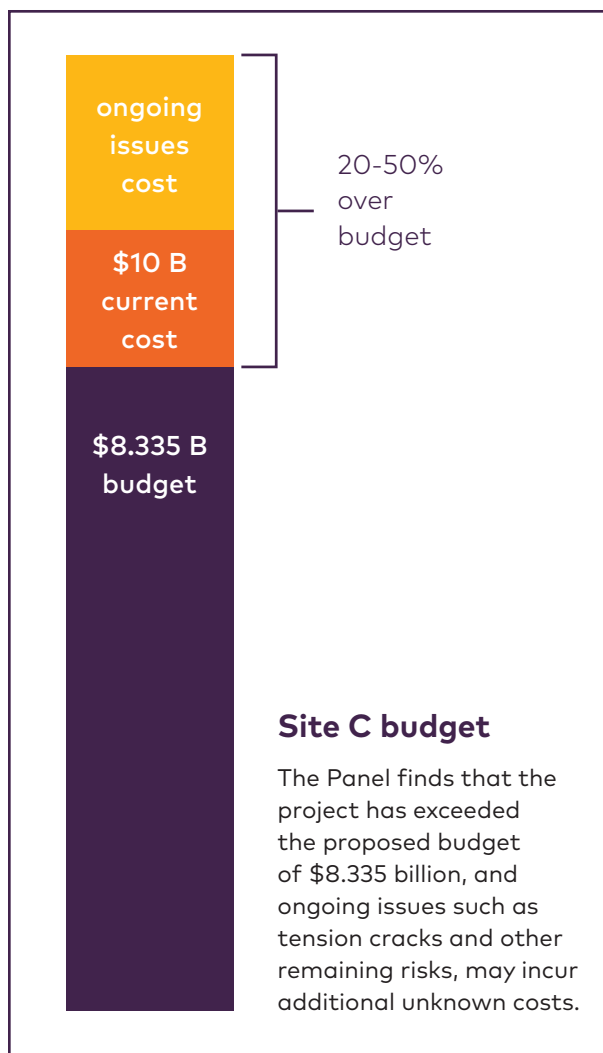
The project is not within the proposed budget of \$8.335 billion. Further, the total cost at completion may be in excess of \$10.0 billion as there are significant risks remaining which could lead to further budget overruns. There is a high degree of uncertainty at this time. As such the Panel is persuaded by the analysis performed by Deloitte, which indicated that in a "high impact" scenario the budget may be exceeded by between 20 and 50 percent. In addition there are significant risks that could prevent the project from remaining on

schedule and the Panel is not persuaded that it will remain on schedule for a November 2024 in-service date.

The termination scenario

In the event the Site C project is terminated, the construction site must be remediated. We estimate this cost to be \$1.8 billion. In addition to this remediation cost, depending upon the load, a portfolio of commercially feasible generating projects and demand side management initiatives may be required.

Therefore, to answer this question requires assumptions about the load forecast. We were directed to use the forecast of peak capacity and demand submitted by BC Hydro in July 2016 as part of its Revenue Requirements Application. We reviewed submissions related to BC Hydro's mid forecast, the low and high bounds representing the range of uncertainty and key assumptions underlying that forecast. The mid load forecast is overly optimistic, and we consider it more appropriate to use the low-load forecast for resource planning purposes. We note there are also risks that could result in demand being less than the low case.



Comparison of costs to ratepayers for the completion and the termination scenarios

Evaluation of the cost to ratepayers is not straightforward in either the completion or termination scenarios. To be competitive, an alternative portfolio must provide sufficient savings to account for the \$1.8 billion in expected termination costs. Many alternative types of energy such as wind are not dispatchable so they do not provide the same benefit to ratepayers as Site C energy. The Panel discusses this issue in the Report and concludes that because BC Hydro has substantial existing dispatchable energy, energy from the alternative portfolio (which has a relatively small amount of wind) would effectively have the same value as that from Site C.

During this Inquiry, Commission staff developed a draft Illustrative Alternative Portfolio using BC Hydro's output from its PV Portfolio Analyzer, additional assumptions and input from BC Hydro and other parties. The resultant Illustrative Alternative Portfolio included in our report indicates that it is possible to design an alternative portfolio of commercially feasible generating projects and demand-side management initiatives that could provide similar benefits to ratepayers as Site C, with a similar unit energy cost.

As can be seen in the table below, the cost to ratepayers of Site C and the Illustrative Alternative Portfolio are virtually equivalent, within the uncertainty inherent in the assumptions.



| Scenario | Rate Impact (\$million) | | | Unit Energy Cost (\$/MWh) | |
|------------------------|------------------------------------|----------|------------------|------------------------------------|--------|
| | Illustrative Alternative Portfolio | Site C | Difference (A-B) | Illustrative Alternative Portfolio | Site C |
| Commission Assumptions | \$ 3,234 | \$ 3,188 | \$ 46 | \$ 32 | \$ 44 |

The table above incorporates the following assumptions (Commission Assumptions):

- Low load scenario
- The Panel Mid-C market electricity price forecast
- Site C total costs of \$10 billion
- Termination costs of \$1.8 billion amortized over 30 years
- BC Hydro financing for all resources in the Illustrative Alternative Portfolio

Commission Assumptions are consistent with the Panel Findings with the exception of termination costs amortization period, on which the Panel made no finding.

The Panel undertook sensitivity analysis to identify the key variables that could have a material effect on the results. The results are discussed later in this Executive Summary.

Other implications

Regardless of the comparative costs, there are also other issues to consider when comparing the completion and termination cases. Both scenarios involve risk that is not easy to quantify.

The major risk of Site C in the short term is whether there will be further construction cost overruns. Site C is a major construction project and therefore inherently at risk of larger cost overruns than a smaller project. It has already exceeded its budget, only two years into a nine-year schedule. There are tension cracks and disputes with its contractors both of which remain unresolved. Although the project is currently expected to be completed by the publicly announced date of 2024, it is one year behind the schedule to which it was actually being managed. At this time, ratepayers are at risk for the known over budget amount, as well as further overages.

In the longer term, a disruptive technology such as affordable utility – or home – scale storage technology could reduce the anticipated benefits of Site C, by allowing the production of non-dispatchable energy from renewables at declining prices. Combined with a continued glut in North American energy markets, this could make it increasingly difficult to sell Site C surplus energy. In addition, disruptive storage technology could incent customers to generate their own electricity. This is more likely to be the case if BC Hydro's rates continue to increase as a result of the requirement for BC Hydro to clear regulatory accounts periodically, the considerable future capital expenditures that will be required to maintain heritage assets, and the costs to complete Site C (including interest costs and the risk of any further cost overruns) and other upward pressure on rates.

While battery storage technology has been raised as part of a possible alternative to Site C, we note that a similar discussion is being held in many other jurisdictions in North America. In Appendix A of the Final Report, the Panel found that utility scale battery storage has reached the early stage of commercial feasibility. We are aware



of a pilot test installation and at least one application for other installations. Further, as noted in Appendix A, numerous firms are planning battery production facilities. There is no guarantee that battery storage will reach full commercial feasibility or, if it does, at what price. However, if it were to happen, demand for Site C's flexible energy could be reduced and BC Hydro and Powerex may not be able to realize any "flexibility premium."

In addition, BC Hydro's financing cost assumption that the cost of debt will not change over 70 years may not be supportable. This period far exceeds the current life span of Provincial Government issued debt instruments.

Some of these risks can be mitigated. For example, prudent oversight of the Site C construction project can keep budget overruns to a minimum. However, some risks, such as the adoption of disruptive technologies and interest rate fluctuations are inherent in such a long-term project.

The assumptions used in the Illustrative Alternative Portfolio are not without risk. Estimates of the amount of load curtailment available could be overly optimistic. The cost of wind may be higher than estimated. There may actually be no geothermal potential. In any of these cases, Site C would have a lower cost to ratepayers, provided it avoided the risks it faces, which are outlined above.

Some risks in the assumptions used in the Illustrative Alternative Portfolio can be mitigated. For example, BC Hydro could implement time based rates for residential customers and hot water shut offs during peak times could be encouraged. Time of use rates can be introduced on an optional basis, by providing a credit on the residential customer's bill if they voluntarily curtail usage during peak periods.

Other ways to mitigate risk and meet future energy needs include changes to government policy. While the Panel takes no position on these mitigation strategies, the evidence

received in this process suggest that the following options are available to government:

- Repatriate some or all of the Columbia River Treaty entitlement. This energy is generated from water stored behind BC Hydro dams in British Columbia and is as firm and flexible as the energy from Site C.
- Remobilize Burrard Thermal and reduce the use of Island Cogen for export to provide capacity for the limited number of 16-hour winter peaks.
- Increase reliance on the market to provide capacity for the limited number of 16-hour winter peaks.

Risks associated with Site C and Illustrative Alternative Portfolio

| Risks with Site C | Risks with Illustrative Alternative Portfolio |
|---|--|
| Subject to larger cost overruns than a smaller project would be | May actually be no geothermal potential |
| Already used up contingency fund and is currently over budget by more than 20% | Estimates of the load curtailment available could be overly optimistic |
| Ratepayer is at risk for any as yet unknown further cost overages | Cost of wind may be higher than estimated |
| Unresolved issues such as tension cracks and ongoing disputes with contractors | Load could end up in the mid to high range, or higher |
| Technological changes may result in a lower than predicted demand for energy | |
| A continued glut in North American energy markets would make it increasingly difficult to sell surplus energy | |

What's in the BCUC's Illustrative Alternative Portfolio?

The Commission Staff's Illustrative Alternative Portfolio includes approximately 80 MW of geothermal and 200 MW of industrial load curtailment.



Demand-side management such as energy efficiency programs



Industrial load curtailment includes paying industrial and commercial customers to monitor and lower their usage during peak events



Wind energy



Geothermal energy



Termination costs of \$1.8 billion are included in the rate impact analysis

In addition to the risks outlined above, other factors to be considered include:

1. Potential cost to ratepayers related to infringement of First Nation treaty and aboriginal rights if Site C is completed.
2. The impact of the loss of valuable agricultural land due to flooding.
3. Possible down-stream impact on the Peace-Athabasca Delta in the event Site C is completed.
4. The potential for a change in either BC Hydro or the Provincial Government debt or bond rating.
5. The impact of termination to First Nations that have entered into agreements with BC Hydro and the Province.
6. The impact of continuing with Site C on those First Nations that have not entered into agreements with BC Hydro and the Province.
7. The impact of termination on McLeod Lake Indian Band will have unaccommodated impacts to its rights.
8. The effect the termination of Site C may have on employment and other economic impacts in the Peace River Region.

Actual load may be higher than the low load forecast. Further, government policy regarding electrification could impact the load forecast to the higher side. The sensitivity analysis shows that although Site C's cost to ratepayers rises with the load, it rises less quickly than does the Illustrative Alternative Portfolio's costs to ratepayers.

Disruptive factors

In addition to construction and operating risk, the Panel has also considered the risk from disrupters during the economic life of the Site C dam, which could include:



Technological advances in renewable energies such as solar power



Storage capacity increased growth and affordability



Electric vehicle use and infrastructure growth



Decentralization as generation is connected to distribution networks



Internet of Things which can provide and automate load-shifting ability to consumers



Demand-side response as consumers take control of their usage



Fuel-switching can lower energy demand and costs for consumers



Climate change



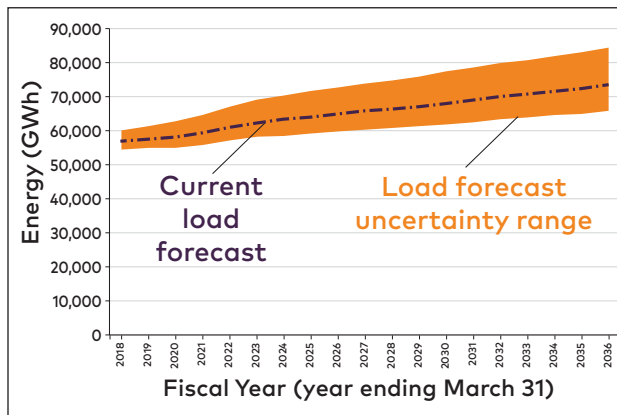
Co-generation provides a more energy-efficient generation of electricity and heat

Load forecast

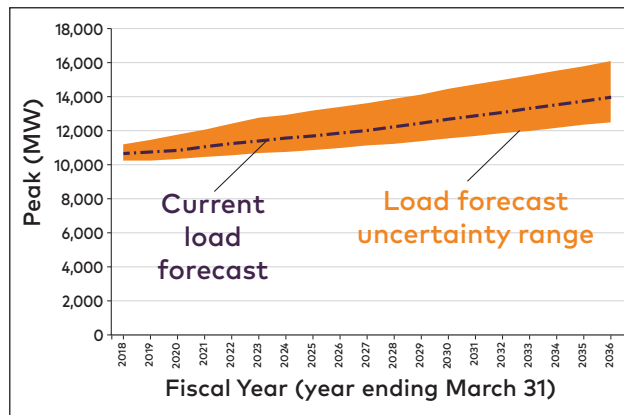
Load forecasting is a technique used by utilities to forecast future energy demand. In the Preliminary Report it was noted that since load forecasting is an inherently uncertain task with volatile drivers of future requirements, BC Hydro's load forecast consists of a high and low band and includes a mid-level projection. In summary, BC Hydro:

- Develops its mid-level forecast incorporating models for its three main customer classes (residential, commercial/light industrial and industrial) and adds these model results to other expected load;
- Uses the mid forecast for resource planning;
- Uses the high and low forecast bands to provide an indication of the magnitude of load uncertainty as well as to develop BC Hydro's contingency resource plans; and
- Uses key drivers including projections of economic variables such as Gross Domestic Product (GDP), efficiency of residential and commercial appliances, temperature, commodity prices and electricity rate increases.

Current load forecast after DSM – energy



Current load forecast after DSM – capacity



Findings on the current load forecast

The Panel finds BC Hydro's mid load forecast to be excessively optimistic and considers it more appropriate to use the low load forecast in making our applicable findings as required by the OIC. In addition, the Panel is of the view that there are risks that could result in demand being less than the low case.

While the Panel cannot precisely determine the adjustments necessary to the mid load forecast we can, based on our view of the issues and factors impacting demand, place more weight on an estimate elsewhere within the range of uncertainty set out by BC Hydro. The Panel focuses on those issues and factors that could reasonably be expected to influence demand from the expected case (mid load forecast) to the high load and low load case.

An overwhelming majority of the Panel's findings summarized below suggest the mid load forecast is not the most probable outcome. Weighing the Panel's findings on the identified issues and other factors impacting demand, the Panel identifies that there is significant downward

pressure on demand indicating the low load forecast is the most probable forecast within BC Hydro's Current Load Forecast range of uncertainty. The Panel makes the following findings related to the Current Load Forecast:

Recent developments

The Panel finds the developments since the Current Load Forecast was prepared, as reported by BC Hydro, can reasonably be expected to reduce demand from the expected case or mid forecast. The Panel acknowledges there have been some recent positive developments in non-LNG large industrial but there is risk and volatility associated with the industrial load and it is susceptible to cyclical ups and downs. Therefore, the Panel is unable to draw any conclusions that recent developments will result in a permanently positive impact on industrial demand or offset the very negative developments which cast doubt on the potential of the LNG sector to significantly impact demand. In the Panel's view, developments since the Current Load Forecast was prepared have reduced the probability that the majority of BC Hydro's forecast LNG load will materialize.

Accuracy of historical load forecasts

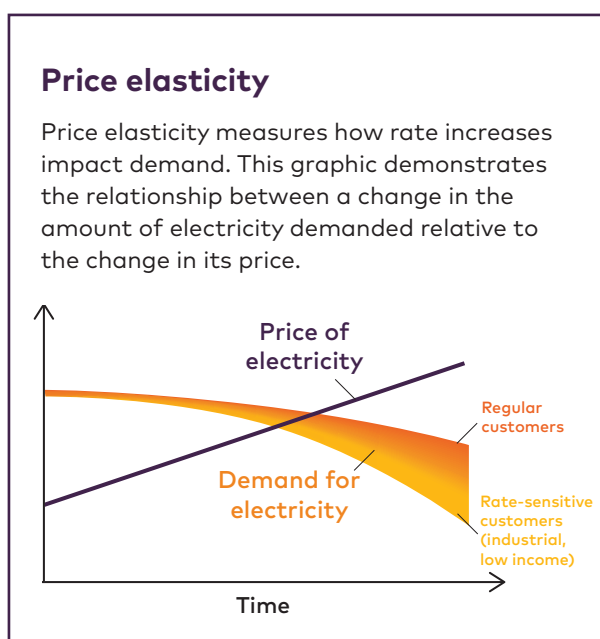
As noted in its Preliminary Report, the Panel finds that the historical instances of over-forecasts are greater than under-forecasts, especially in the industrial load, and that the accuracy of BC Hydro's historical industrial forecasts looking out three and six years has been considerably below industry benchmarks. While the Panel does not place significant weight on the historical inaccuracies in the load forecast, it does approach the Current Load Forecast with some skepticism, especially as it relates to the industrial load forecast.

GDP and other forecast drivers

The Panel finds the GDP and disposable income estimates used by BC Hydro in its Current Load Forecast are higher than similar Conference Board of Canada estimates, and these differences have not been fully explained. The Panel finds BC Hydro's mid load forecast is higher than if it used the CBoC estimates and adjusting for this could reasonably be expected to influence demand towards the low load case.

Price elasticity

Price elasticity measures how rate increases impact demand. The Panel finds the -0.05 long-run price elasticity used by BC Hydro for all rate classes to be too low in magnitude to reflect the degree of change in demand for a given change in price. Accordingly, the Panel finds BC Hydro's mid load forecast is higher than otherwise would be the case since it used lower price elasticity factors and that adjusting for this would reduce demand towards BC Hydro's low load forecast case.



Future rate increases

The Panel is particularly concerned about the appropriateness of BC Hydro's assumption that there will be no real rate increases between F2025 and F2036. The Panel finds BC Hydro's demand forecast is sensitive to rate changes even using BC Hydro's low price elasticity factors. Accordingly, any real increase in rates beyond the rates reflected in the 2013 10 Year Rates Plan and any subsequent real rate increase could reasonably be expected to influence demand towards the low load case.

The Panel finds there will be considerable upward pressure on rates for the remainder of the 2013 10 Year Rates Plan and beyond Fiscal 2024. The Panel finds the risk associated with this upward pressure on rates is especially concerning given the submissions related to potential "demand destruction" that could result from the impact of real rate increases on already vulnerable industrial customers and also the likelihood that even nominal rate increases will increase energy poverty among BC's low income households.

Potential disruptive trends and risks

Consistent with BC Hydro's Current Load Forecast, the Panel finds additional load requirements from electrification initiatives should not be included in the load forecast for the purpose of resource planning. Although available information indicates that the effects of electrification on BC Hydro's load forecast could potentially be significant, the timing and extent of those increases remain highly uncertain. The Panel acknowledges the numerous submissions identifying disruptive factors that could potentially decrease demand but does not identify any specific trends that would suggest an adjustment to the Current Load Forecast.

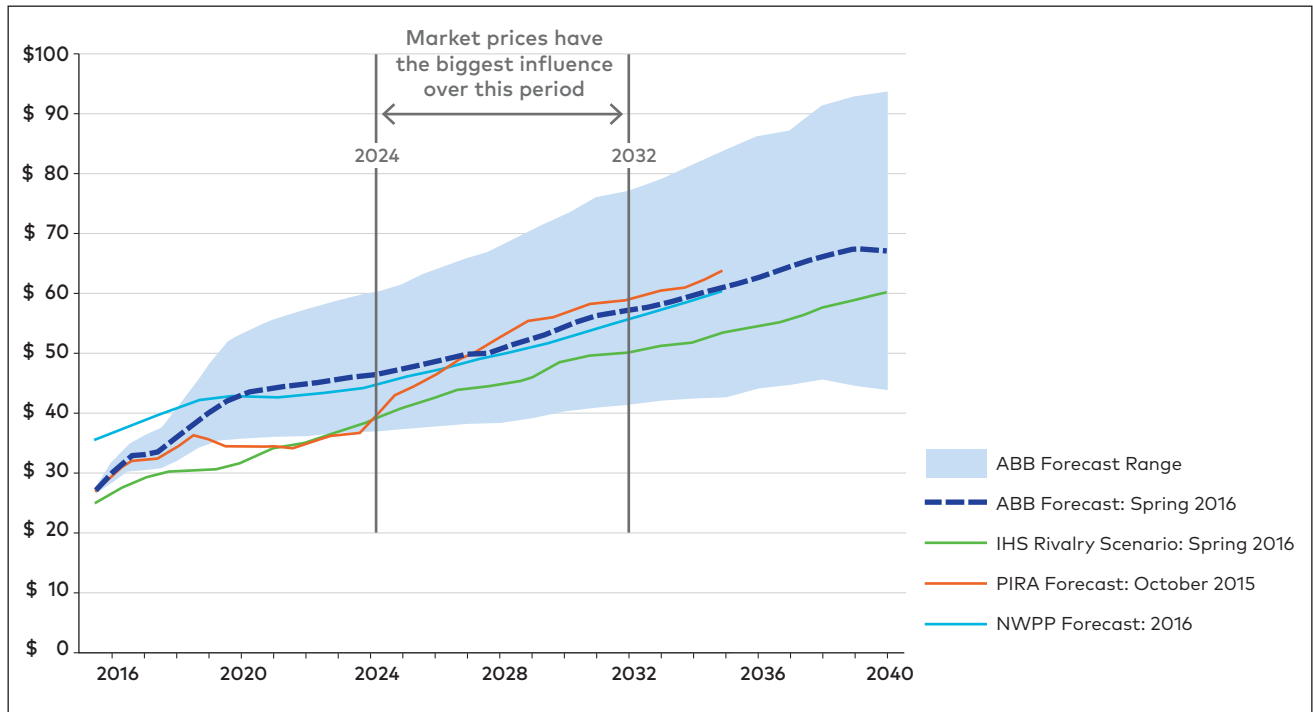
Flattening electricity demand

Many participants, including BC Hydro, recognize that, since the recession, demand has not returned to what it was and evidence indicates that total demand is not growing in most places in North America – in most cases it is flat or declining. The Panel finds BC Hydro's expected compound growth rate for the residential, commercial and light industrial sectors to be significantly higher than the flat or declining growth rates forecast in other North American jurisdictions. In the Panel's view, a likely explanation for this is the result of lower demand-side management (DSM) spending and DSM program differences. For example, BC Hydro has not implemented time-of-use and other load curtailment measures that have been broadly adopted elsewhere in North America.

The price of surplus energy

Most energy that is exported from BC is delivered to Mid-C, a major North American electricity trading point. The graph below shows various forecasts for Mid C prices. BC Hydro used the ABB Spring 2016 forecast.

Mid-C Average Price Forecast Comparison



However, the Panel found that a more conservative approach for the estimation of future market pricing is warranted, given that markets have been in decline for the past decade and that BC Hydro's proposed Mid C forecast should not be relied upon. Accordingly, the Panel finds that, for purposes of this assessment, the future market price for 2024 and beyond should be considered to be at a point mid-way between the proposed forecast and the low end of BC Hydro's Mid C market price forecast.

The potential market for the extra capacity and flexibility benefits offered by Site C is a more difficult issue. BC Hydro suggests that it is optimal timing for surplus energy due to the closure of coal generation plants in the Western US and Alberta in the mid to late 2020's. Similar shut downs for nuclear and natural gas in California are clear indications that there will be a need to fulfill capacity requirements. However, what is less clear is whether BC Hydro, through Powerex, can be successful in reaching agreements to supply this capacity and flexibility.

Illustrative Alternative Portfolio

The Panel is of the view that BC Hydro's Alternative Portfolio was not the lowest cost portfolio. We directed Commission staff to develop a draft Illustrative Alternative Portfolio and sought comment from parties.

The Panel is mindful of the comments by BC Hydro and other parties that resource planning is a complex exercise. The alternative portfolio developed by Commission staff are not a substitute for BC Hydro's planning process. We consider this alternative portfolio to be illustrative only; it was developed as a way to answer the questions posed in the OIC. The Illustrative Alternative Portfolio was informed by the evidence available including portfolios presented by BC Hydro that were produced by its PV Portfolio Analyzer and also comments from BC Hydro and other parties.

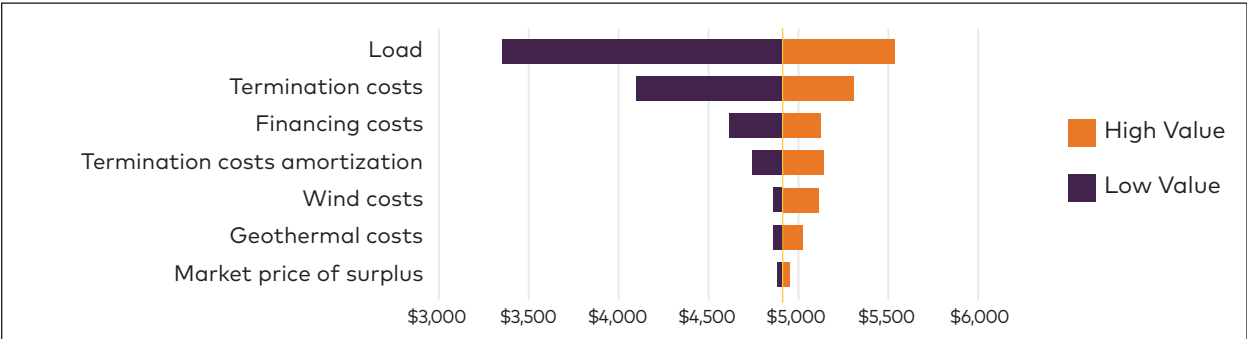
Commission staff created three instances of the Illustrative Alternative Portfolio, one for each of the load forecasts under consideration: high, mid and low. The results are as follows:

Summary Results of the Illustrative Alternative Portfolio (2018\$)

| | High Load Forecast | Medium Load Forecast | Low Load Forecast |
|--|---|--|--|
| Illustrative Alternative Portfolio composition | <ul style="list-style-type: none"> • 441 MW of wind projects starting in F2025, 288MW in F2026 • DSM initiatives (energy efficiency, optional time of use (TOU) rate, capacity focused DSM, industrial curtailment) • 81 MW of geothermal projects starting in F2025 | <ul style="list-style-type: none"> • 438 MW of wind projects starting between F2029 and F2031 • DSM initiatives (energy efficiency, optional TOU rate, capacity focused DSM, industrial curtailment) • 81 MW of geothermal projects starting in F2025 | <ul style="list-style-type: none"> • 444 MW of wind projects starting between F2039 and F2041 • DSM initiatives (energy efficiency, optional TOU rate, capacity focused DSM, industrial curtailment) |
| Rate Impact Illustrative Alternative Portfolio | \$ 5.121 billion | \$ 4.618 billion | \$ 3.234 billion |

We have analysed the sensitivity of the cost to ratepayers of both the Illustrative Alternative Portfolio and Site C to changes in various input assumptions:

Illustrative Alternative Portfolio Rate Impact Sensitivity Analysis



In the diagram above, the horizontal axis is the cost to ratepayers of the Illustrative Alternative Portfolio given changes in various input assumptions. The wider the range of costs to ratepayers the more sensitive the portfolio is to that particular input. As can be seen in the graph above, the inputs and assumptions that have the greatest impact on the cost to ratepayers of the Illustrative Alternative Portfolio in descending order are:

1. The magnitude of the load forecast
2. Site C termination costs
3. Financing costs
4. The length of the amortization period for the Site C termination costs
5. Wind and geothermal energy capital and O&M costs
6. The market price of surplus energy

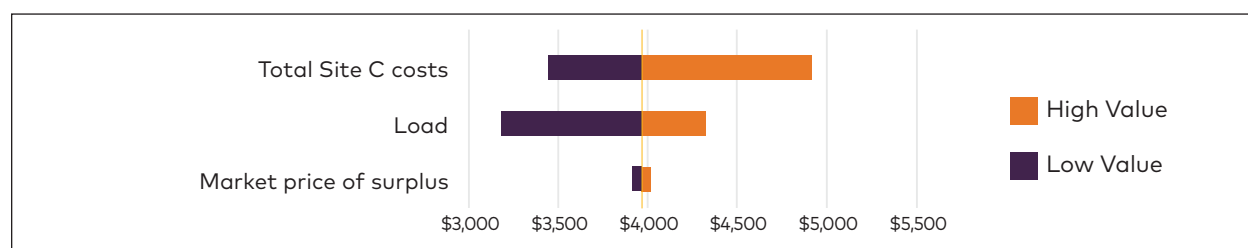
The graph shows the cost to ratepayers of the Base Case described below, and variations around the base case. The Base Case is in the centre of the graph and is \$4.918 billion. Then, each variable is changed to a low or high value and the cost to ratepayers of that single change (while holding the other inputs constant) is shown. For example, if the Load forecast is changed to Low instead of Medium, the cost to ratepayers would be reduced by \$1.558 billion from \$4.918 billion to \$3.36 billion, while all the other inputs remained as defined in the Base Case.

The Base Case differs from the Commission scenario discussed above. For the purpose of the sensitivity analysis, the Base Case assumptions are:

- Mid load scenario
- The Panel Mid-C market electricity price forecast
- Site C termination costs of \$1.8 billion amortized over 30 years
- IPP financing of 6.4% for wind and geothermal energy; BC Hydro financing for DSM

For comparison purposes, the sensitivity analysis was repeated for the Site C project as follows:

Site C Rate Impact Sensitivity Analysis



For Site C, as seen in the graph above, the base case is completion costs of \$10 billion, BC Hydro's mid load forecast and the Panel's Mid C forecast assumptions. The inputs and assumptions that have the greatest impact on rates are the Site C total costs and the load forecast. The market price of surplus energy has much less impact on the costs to ratepayers.

The sensitivity analysis illustrates the effect of changing one input assumption at a time. To see the effect of changing more than one variable at a time, we provide a few sample scenario results below:

| Scenarios | Cost to Ratepayers (\$million) (NPV of the Incremental Revenue Requirement) | | | Unit Energy Cost (\$/MWh) | |
|--|--|----------|------------------|------------------------------------|--------|
| | Illustrative Alternative Portfolio | Site C | Difference (A-B) | Illustrative Alternative Portfolio | Site C |
| Commission Scenario | \$ 3,234 | \$ 3,188 | \$ 46 | \$ 32 | \$ 44 |
| Variants from the Commission Assumptions | | | | | |
| Medium load forecast | \$ 4,618 | \$ 3,969 | \$ 649 | \$ 34 | \$ 44 |
| Medium load forecast + \$12 billion Site C cost | \$ 4,618 | \$ 4,129 | \$ 489 | \$ 34 | \$ 54 |
| Low load forecast + \$12 billion Site C cost | \$ 3,234 | \$ 4,129 | \$ (895) | \$ 32 | \$ 54 |
| Low load forecast + higher wind-geothermal financing | \$ 3,360 | \$ 3,188 | \$ 172 | \$ 33 | \$ 44 |
| High load forecast | \$ 5,212 | \$ 4,325 | \$ 796 | \$ 31 | \$ 44 |
| High load forecast + \$12 billion Site C cost | \$ 5,121 | \$ 5,266 | \$ (145) | \$ 31 | \$ 54 |

The Illustrative Alternative Portfolio indicates that it is possible to design an alternative portfolio of commercially feasible generating projects and demand-side management initiatives that could provide similar benefits to ratepayers as Site C.

Conclusions

We have not been asked to make recommendations or to identify which option has the highest cost to ratepayers or more significant implications than others. Nevertheless, we have provided our view that not only is the suspension scenario the greatest cost to ratepayers of the three scenarios, it also has other negative implications.

We take no position on which of the termination or completion scenarios has the greatest cost to ratepayers. The Illustrative Alternative Portfolio we have analyzed, in the low-load forecast case, has a similar cost to ratepayers as Site C. If Site C finishes further over budget, it will tend to be more costly than the Illustrative Alternative Portfolio is for ratepayers. If a higher load forecast materializes, the cost to ratepayers for Site C will be less than the Illustrative Alternative Portfolio.

We have provided a discussion of the risk implications of each alternative in order to assist in the evaluation.

