From: MacLaren, Les EMPR:EX

To: Wright, Don J. PREM:EX; Nikolejsin, Dave EMPR:EX
Cc: Kennedy, Christine PREM:EX; Foster, Doug FIN:EX

Subject: RE: Further information needed

Date: Saturday, December 9, 2017 4:26:08 PM
Attachments: Site C Cost Estimate Evolution 9-12-17.docx

Site C Project and existing regional benefits 9-12-17.docx

#### Hi Don et al

I have added some explanations below to the Premier's questions, and additional information is attached related to the project budget and regional payments.

#### Les

From: Wright, Don J. PREM:EX

Sent: Saturday, December 9, 2017 1:31 PM

To: MacLaren, Les EMPR:EX; Nikolejsin, Dave MNGD:EX

**Cc:** Kennedy, Christine PREM:EX **Subject:** Further information needed

Hi Les and Dave,

This will be a bit of a dump, but just had chat with Premier, and he would like to have the following in digestible form:

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To the extent that you have this stuff on the shelf just flip it over one-by-one. To the extent that we need to ask Hydro to do some work, feed it back to me piecemeal.

and can pick this up later this evening or tomorrow morning.

Thanks. Sorry for the lost weekend.

Don

#### Site C Estimate History CONFIDENTIAL

**Cost Breakdown** 

Estimate Basis	Stage 1	Stage 3	FID	Review
Estimate Date	2007	2010	2013	2017
Design Basis	1980s	Modern	Modern	Modern
In-service Date	F2020	F2021	F2024	F2024

Dollar base	2008	2010	2014	Nominal
Direct Costs	2,214	3,825	4,468	5,839
Indirects and Overheads	464	1,105	1,129	2,010
Contingency	417	730	680	858
Inflation and Escalation	1,165	775	651	
IDC	920	1,525	1,407	1,285
Risk Reserve	450	-	440	708
<b>Grand Total</b>	5,630	7,960	8,775	10,700

#### **Description of Changes**

#### Key Changes from Stage 1 estimate to current

#### Direct costs - change from 1980s to modern design standards

Approximate cost impact: \$1.5 billion

- Increase in seismic withstand (ability to withstand earthquakes)
- Improved water passage capability (ability to pass water under flood events, even with no site power)
- Change in dam orientation to mitigate geotechnical risks (rebound)
- Increase in generating capacity (to reflect expected requirement to integrate intermittent renewables such as wind)
- Increase in worker accommodation standards to reflect need to attract and retain skilled labour

#### Changes in construction management standards and market conditions:

Approximate cost impact: \$0.8 billion

- Contractor productivities lower due to:
  - o higher safety and environmental standards
  - o changes in workforce composition
- Increase in management costs to reflect modern safety and environmental management standards

#### Indirect Costs - inclusion of modern expectations around First Nations and Community Benefits: Approximate Cost Impact: \$0.6 billion

- Addition of funding for regional benefits agreements (not included in Stage 1 estimate)
- Realistic forecast for First Nations benefits agreements (only minor amounts in Stage 1 estimate)
- Increase in expected regulatory costs due to modern expectations for environmental assessment

· Realistic forecast for mitigation and compensation funding based on modern standards

#### Inflation - change in project schedule:

#### Approximate Cost Impact: \$0.8 billion

- Project in-service date changed from F2020 to F2024. This shifts spending later in time, which will be at higher prices due to inflationary effects
- Partially offset by decreases in expected escalation rates from 2008 baseline.

#### Interest During Construction – changes in financing costs:

#### Approximate cost impact: Negligible

- There have been several changes related to IDC that roughly offset in total:
  - Extension to the project schedule, meaning debt is carried for longer with resulting increase in interest payments
  - Decrease to interest rates

#### **Other Changes**

- Changes to market prices and conditions
- Changes to risk assessment, and resulting:
  - Contingency
  - o Risk reserve

#### Existing and Site C Project Regional and First Nations Benefits

**Existing Mechanisms**: already in place to help alleviate pressure on local services and infrastructure, promote economic development project/ partnerships, and capacity building, include:

#### i. The Peace Valley Agreement (formerly FairShare)

This agreement, between the Province and Peace region local governments, was signed in 2015 in recognition that the Northeast is a major contributor to the economic development of the province through the oil, gas, and forest industries. The Northeast is home to nearly half of the province's rural property assessment for utilities and industry (Property Classes 2, 4 and 5). Most of this assessment is outside the taxing jurisdiction of the local governments in the region. To address this inequity, the Province provides the eight local governments in the region with annual funding under the Peace Valley Agreement.

Annual funding under the agreement is \$50 M a year over 20 years (2015-35) with a 2% annual inflator commencing in 2020; with a total value of \$1.1 B over the 20-year term. The money is allocated to the eight local governments based on a formula set in the agreement. Roughly about 80% of the funding goes to the two largest regional centres (Dawson Creek and Fort St. John); 6% goes to the Peace River Regional District (PRRD); and the remaining 14% goes to the smaller municipalities (Chetwynd, Hudson's Hope, Pouce Coupe, Tumbler Ridge, and Taylor). The funds are to be used to upgrade, maintain, and expand the local government services and infrastructure necessary to facilitate the economic expansion of industry in the Peace River region (especially oil, gas, and forest products), with an emphasis on capital investments, asset management, and planning.

#### ii) The Northern Development Initiative Trust (NDIT)

The NDIT is a not-for-profit regionally-operated corporation, with a geographic region that covers the northern half of the province, from roughly Bella Coola to the Alberta border north to the Yukon border, and including Northeast BC. It operates independently from government and provides the funding and ability to identify and pursue new opportunities for stimulating economic growth and job creation.

The NDIT was established by the Province in 2005, and was endowed with \$135 M in capital, which has subsequently been invested to provide an income stream that covers the operating costs and grant payments made by the organization. At inception, NDIT's capital was divided into several different accounts, including \$20 M accounts for each of NDIT's regional development areas: the Cariboo-Chilcotin/Lillooet, Northeast, Northwest and Prince George. These accounts are used to support investment in each designated region via NDIT's funding programs. Over time, the balance of the NDIT's Northeast account has grown from \$20 M at inception to \$32.3 M as of December 31, 2016.

The NDIT's Northeast's Regional Development Account funds eligible programming in Chetwynd, Dawson Creek, Northern Rockies Regional Municipality, Fort St. John, Hudson's Hope, Peace River Regional District, Pouce Coupe, Taylor, and Tumbler Ridge, with investment decisions informed by a Regional Advisory Committee comprised of elected local government leaders from the region. All Peace area local governments are entitled to a \$50,000 rebate annually, \$5,000 of which must be used to fund collaborative economic development projects with another local government, First Nations band, tourism, or industry association. This Economic Development Capacity Building program is important because it provides an annual, reliable source of discretionary funding for local governments that otherwise do not have the budget available to support local economic development priorities.

Between 2010 and 2016, over 90 projects and approximately \$5.6 M in funding were approved in almost 30 different communities from the Northeast Regional Development Account (excluding funding that may have come from other NDIT sources, such as its Pine Beetle Recovery or Cross Regional accounts). Annual investments in the region have climbed from just over \$0.3 M in 2012 to \$1.6 M in 2016, with a further \$1.9 M approved as of September 30, 2017.

#### Planned Investments if Site C is Completed)

BC Hydro has committed to funding:

#### Regional Legacy Agreements

To date, BC Hydro has reached agreements with the PRRD, the District of Chetwynd, District of Taylor and the City of Fort St. John that will provide lasting benefits for residents of the Peace region. A regional legacy benefits agreement between BC Hydro and the PRRD will provide \$2.4 M annually to

the PRRD and its member communities for a period of 70 years, starting when Site C is operational. The funding will be indexed to inflation.

#### ii. Agricultural Mitigation and Compensation Plan

Site C will affect agricultural land and production, primarily through the creation of a reservoir, highway realignment and dam construction. The agricultural assessment evaluated four potential effects to agriculture: loss of agricultural land, effects on individual farm operations, changes to agricultural economies, and changes to local food production and consumption.

To address these issues, BC Hydro announced an Agricultural Mitigation and Compensation Plan (the Plan) on August 12, 2016. The Plan was developed by the Consultation Steering Committee, comprised of staff from BC Hydro, the Ministries of Agriculture (AGRI) and Energy, Mines and Petroleum Resources (EMPR). In fall 2015 and spring 2016, the Consultation Steering Committee sought input from a range of stakeholders, including Peace region landowners, tenure holders, agricultural producers, agricultural associations, local governments and Indigenous groups to inform the development of the Plan.

The Plan includes the establishment of a \$20 M Agricultural Compensation Fund to improve agricultural production and agrifoods economic activity in the Peace region. The program will ultimately be managed by a local body. BC Hydro and AGRI are working with the Peace region's agricultural industry to establish a Board for the fund that represents regional agricultural producers and agricultural interests. If a decision is made to continue Site C, BC Hydro and AGRI plan to develop a call for Board members in early 2018, and to begin dispersing funds the same year.

#### iii. First Nations Benefit Agreements

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<sup>&</sup>lt;sup>1</sup> McLeod Lake, Doig River, Halfway River, Saulteau; and Alberta nations Dene Tha' and Duncan's. BC Hydro continues to negotiate an IBA with Blueberry River.



#### BACKGROUNDER

For Immediate Release Dec. 11, 2017

#### **Site C Quick Facts & Mitigation Elements**

#### **Quick Facts:**

- The Site C project is already two years into construction.
- To date, \$2.1 billion has already been spent; it's estimated that another \$1.8 billion would be needed for site remediation (which, even then, would not restore the site to its previous condition).
- The \$4 billion in Site C termination costs is equivalent to \$860 for every British Columbian, or eliminating taxpayer-supported capital projects:
  - 66 secondary schools (\$60 million each); or,
  - 11 hospital projects similar to the North Island Hospitals (Province's share \$365 million);
     or,
  - 12 highway projects similar to the Okanagan Valley Corridor Project (Province's share \$ 330 million); or,
  - 3 Pattullo Bridges (\$1.3 billion each).
- 99 per cent of Class 1-5 agricultural lands (capable of crop production) in the Peace Agricultural Region will not be affected by Site C. Permanent loss of approximately 3,800 hectares of class 1-5 agricultural lands leaves approximately 2.7 million hectares of Class 1 to 5 lands available for agricultural production in the Peace Agricultural Region.

#### **New Management Direction**

- A new Project Assurance Board made up of BC Hydro, independent experts and government representatives - will provide enhanced oversight to future contract procurement and management, project deliverables, environmental integrity, and quality assurance – all within the mandate of delivering the project on time and budget. Based on current projections, BC Hydro has revised the budget to \$10.7 billion.
- EY Canada has been retained by BC Hydro to provide dedicated budget oversight, timeline evaluation and risk assessment analysis for the duration of the project.

#### **Agriculture**

- Activate the \$20 million agricultural compensation fund established to offset lost sales and stimulate agriculture enhancements in the Peace region.
- Government will establish a new dedicated BC Food Security Fund based on Site C revenues –
  dedicated to supporting farming and enhancing agricultural innovation and productivity across
  BC.

#### **Community Benefits**

 New Community Benefits Programs will be established with a mandate to ensure that project benefits flow to local communities, and increase the number of apprentices and First Nations workers hired onto the project.

- The Peace River Legacy Fund will be used to implement solutions to longer-term environmental, social and economic issues.
- Government will explore options for relocating Site C worker accommodations, post completion, to a local skills-training institution.

#### **First Nations**

- As a component of the comprehensive review of BC Hydro, the Province and BC Hydro will
  consider the development of a new procurement stream for smaller scale renewable electricity
  projects where Indigenous Nations are proponents or partners to create local employment and
  commercial opportunities throughout B.C. as well as environmental benefits with the
  replacement of diesel or fossil fuel-based energy installations. The Ministry of Energy, Mines and
  Petroleum Resources and the Ministry of Finance will bring these proposals to government by
  fall 2018.
- BC Hydro and the Ministry of Transportation and Infrastructure will work with Treaty 8 First
  Nations and others to redesign the Highway 29 realignment at Cache Creek to reduce impact on
  potential burial sites and sacred places. BC Hydro will invite proposals from Treaty 8 First
  Nations for this roadbuilding work.
- The Ministry of Indigenous Relations and Reconciliation and BC Hydro will continue to engage Treaty 8 First Nations to seek additional solutions to mitigate the adverse impacts of Site C, and to advance reconciliation.
- The Province will continue recent direct government engagement with First Nations to seek input into the design of a Peace River Legacy Fund and establish a collective Treaty 8 project advisory committee.
- Work will continue in addressing cultural concerns, enhancing business opportunities, and retaining funding/land transfers and contract opportunities.

#### Contact:

Suntanu Dalal Media Relations Ministry of Energy, Mines and Petroleum Resources 250 952-0628



#### BACKGROUNDER

For Immediate Release Dec. 11, 2017

#### From Private Power to Site C: Bad Decisions that Shaped B.C.'s Electricity Policy

Government's decision to proceed with the completion of Site C was driven, in large part, by a series of bad energy policy decisions made over the past decade and a half that put politics ahead of people. These decisions significantly increased the Province's intermittent electricity energy supply and forced upward pressure on electricity rates.

In 2002, the previous government introduced the Energy Plan that mandated that all new power generation opportunities were reserved for private power producers. Through the extensive use of electricity purchase agreements, the board of BC Hydro made long-term commitments to purchase a large supply of new intermittent power, primarily through run-of-river power projects, at prices considerably higher than produced by BC Hydro's heritage hydroelectric assets.

The board of BC Hydro committed to more than 135 contracts with an average term of 28 years. And while power generated by BC Hydro's heritage assets cost \$32 per MWh, power from IPPs cost \$100 per MWh. Today these contracts represent future financial commitments of over \$50 billion.

The Energy Plan also changed the structure of BC Hydro and established a standalone BC Transmission Corporation to allow private power producers to access the transmission system and to sell directly to large consumers.

At the same time that BC Hydro was directed to accommodate this new supply of intermittent power, the previous government also instructed BC Hydro to decommission its Burrard Generating Station in Metro Vancouver to address growing concerns about local air pollution and greenhouse gas emissions.

As BC Hydro lost needed electrical capacity to backstop its new intermittent power supply, it was forced to seek new capacity or "firm" power, the type traditionally provided by hydroelectric facilities like Site C.

In 2010, the old government introduced the Clean Energy Act, which exempted a number of BC Hydro projects and power procurement activities from independent review by the BC Utilities Commission including Site C, the Clean Power Call, the Smart Metering Program and the Northwest Transmission Line.

The former government then compounded the financial problems at BC Hydro by directing the corporation to pay dividends to the province from funds BC Hydro had to borrow. The cost of this debt is a direct cost to BC Hydro ratepayers.

Between 2001 and 2017, the old government directed BC Hydro to increase its liabilities held in regulatory accounts from \$116 million to \$5.597 billion. These costs will have to be recovered from ratepayers in the future.

As a result of these earlier policy decisions, the old government saddled BC Hydro with a new supply of long-term expensive intermittent power, without the electrical capacity to maintain reliable service to its customers.

Faced with challenges of its own making, the old government decided to push ahead with Site C without allowing review by B.C.'s independent regulator, the BC Utilities Commission.

Contact:
Suntanu Dalal
Media Relations
Ministry of Energy, Mines and Petroleum Resources
250 952-0628



#### BACKGROUNDER

For Immediate Release Dec. 11, 2017

#### Site C Termination Implications for BC Hydro Customers and BC Taxpayers

The decision to proceed with construction of Site C was primarily driven by a determination that British Columbians should not have to take on \$4 billion in debt with nothing in return for the people of this province and, even worse, with massive cuts to the services they count on.

Analysis conducted by the Ministry of Finance, Ministry of Energy, Mines and Petroleum Resources, and external experts on the BC Utilities Commission (BCUC) report concluded that completing Site C will be significantly less costly to British Columbians than cancelling the project.

In its report, the BCUC estimated that BC Hydro would need to spend an additional \$1.8 billion for termination and site remediation costs if it were to cancel the project. This is in addition to the \$2.1 billion of sunk construction and planning costs that will have been spent by the end of December 2017.

Faced with an immediate and unavoidable \$4 billion debt, the Province would have to recover these costs from either BC Hydro customers or taxpayers. As a regulated utility, BC Hydro is obligated to file a plan with the independent BCUC who would ultimately determine which course of action it deemed most appropriate.

The BCUC did not take a position with respect to the options for debt recovery, however, government conducted extensive analysis of the fiscal and rate implications of likely debt recovery options.

If the BCUC determined that BC Hydro could recover the nearly \$4 billion in Site C costs from its customers, the Commission would then have to decide what the repayment period should be:

- Under a 10-year recovery period, BC Hydro customers could face a one-time 12.1% rate
  increase that would last for the next decade. This would be in addition to any other rate
  increases required to cover BC Hydro's ongoing debt servicing and other operating
  costs, including recovery of its rate deferral accounts.
- Under a longer recovery period of 70 years, customers would not face short-term rate
  impacts. Such a move would, however, force future generations to pay for a valueless
  asset from which they never receive benefits. This course of action would also increase
  the risk that provincial bond rating agencies would bring into question BC Hydro's
  financial sustainability, thus increasing the risk that BC Hydro's entire debt load
  becomes viewed as non-commercial. This would place significant pressure against the
  Province's AAA credit rating and annual borrowing costs.

If the BCUC decided that BC Hydro should not recover the \$4 billion of Site C debt from its customers, the corporation and the Miniser of Finance would face two options that would significantly impact BC taxpayers.

If BC Hydro retained the \$4 billion debt:

- It would first be obligated to write off the Site C costs as unrecoverable thus causing BC
  Hydro and the Province to slip into significant deficits. The corporation would then face
  an even higher risk of no longer being viewed by rating agencies as self-supporting and
  having its entire debt reclassified as non- commercial.
- Such a move would significantly risk the Province losing it's AAA rating with a resultant increase in borrowing costs, thus reducing the annual budget available for key priority spending areas.

If government itself chose to assume the nearly \$4 billion of Site C debt – thus safeguarding BC Hydro:

- It would immediately increase B.C.'s level of taxpayer-supported debt from about \$44.6 billion to \$48.6 billion.
- This increase would also erode the Province's key fiscal sustainability debt-to-revenue ratio by 7-8 percentage points – a measure critically assessed by provincial bond-rating agencies and ultimately determines the Province's borrowing and debt-servicing costs.
- Taking on the Site C debt into government taxpayer-supported debt would likely
  eliminate planned increases in provincial capital spending over the next two years. For
  context, \$4 billion in assumed Site C debt could pay for the equivalent of:
  - o 66 secondary schools (\$60 million each); or,
  - 11 hospital projects similar to the North Island Hospitals (Province's share \$365 million);
     or,
  - 12 highway projects similar to the Okanagan Valley Corridor Project (Province's share \$ 330 million); or,
  - 3 Pattullo Bridges (\$1.3 billion each).
- This additional taxpayer-supported debt load would also increase operating costs in the provincial budget by \$120 million to \$150 million annually putting at risk the services British Columbians count on.

Contact:

Suntanu Dalal

Media Relations

Ministry of Energy, Mines and Petroleum Resources 250 952-0628



#### **NEWS RELEASE**

Not Approved Office of the Premier Dec. 11, 2017

#### Government will complete Site C construction, will not burden taxpayers or BC Hydro customers with previous government's debt

VICTORIA – The British Columbia government will complete construction of the Site C hydroelectric dam, saying that to do otherwise would put British Columbians on the hook for an immediate and unavoidable \$4-billion bill – with nothing in return – resulting in rate hikes or reduced funds for schools, hospitals and important infrastructure.

"Megaproject mismanagement by the old government has left B.C. in a terrible situation," said Premier John Horgan in making today's announcement. "But we cannot punish British Columbians for those mistakes, and we can't change the past. We can only make the best decision for the future.

"It's clear that Site C should never have been started. But to cancel it would add billions to the Province's debt – putting at risk our ability to deliver housing, child care, schools and hospitals for families across B.C. And that's a price we're not willing to pay," said Premier Horgan.

Had government decided to cancel Site C, it would have taken on the project's \$3.9 billion in debt, made up of \$2.1 billion already spent and another \$1.8 billion in remediation costs. As public debt, it would become the responsibility of BC Hydro customers or taxpayers.

"We will not ask British Columbians to take on \$4 billion in debt with nothing in return for the people of this province and, even worse, with massive cuts to the services they count on.

"The old government recklessly pushed Site C past the point of no return, committing billions of dollars to this project without appropriate planning and oversight. Our job now is to make the best of a bad deal and do everything possible to turn Site C into a positive contributor to our energy future."

Premier Horgan said that in moving forward with the project, his government will launch a Site C turnaround plan to contain project costs while adding tangible benefits. The plan will include:

- A new Project Assurance Board that will provide enhanced oversight to future contract
  procurement and management, project deliverables, environmental integrity, and quality
  assurance all within the mandate of delivering the project on time and budget. Based
  on current projections, BC Hydro has revised the budget to \$10.7 billion.
- Establishing new community benefits programs, mandated with making sure that project benefits assist local communities, and increasing the number of apprentices and First Nations workers hired onto the project.
- A new BC Food Security Fund based on Site C revenues dedicated to supporting farming and enhancing agricultural innovation and productivity in the province.

In addition to funding for provincewide food security projects and programs, the turnaround

#### plan will:

- Ensure the Peace River Legacy Fund implements solutions to longer-term environmental, social and economic issues.
- Activate the \$20-million agricultural compensation fund to offsets lost sales and stimulate long-term productivity enhancements in Peace Valley agriculture.

"We're taking the steps the previous government showed no interest in: a solid budget, enhanced review and oversight, community benefits, and an eye to the future," Premier Horgan said.

"We're putting an end to the years of energy policy that put politics ahead of people – where government forced BC Hydro into costly contracts, hiking rates for homeowners and renters, and delivering dividends to government it simply couldn't afford."

Premier Horgan added that his government will also be pursuing an alternative energy strategy to put B.C. more firmly on the path to green, renewable power that helps the province exceed its climate goals.

"I respect and honour the commitment of people who oppose Site C, and share their determination to move B.C. to a clean, renewable energy future and to embrace the principles of reconciliation with Indigenous communities," said Premier Horgan, who acknowledged that Site C does not have the support of all Treaty 8 First Nations. "We know this decision is not what some First Nations wanted. Their voices were heard and their perspectives were an important part of the deliberations on a very challenging decision.

"As we move forward, I welcome ideas from across our province as we define an energy strategy that protects our environment, delivers on our climate responsibilities, powers future generations, and creates jobs and opportunities for all British Columbians."

Three backgrounders follow.

#### Contact:

Jen Holmwood Deputy Communications Director Office of the Premier 250 818-4881

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#### **BACKGROUNDER 1**

Not Approved Office of the Premier Dec. 11, 2017

#### Site C Quick Facts and Mitigation Elements

#### **Quick Facts:**

- The Site C project is two years into construction.
- To date, \$2.1 billion has already been spent. It is estimated that another \$1.8 billion would be needed for site remediation (which, even then, would not restore the site to its previous condition).
- The \$4 billion in Site C termination costs is equivalent to \$860 for every British Columbian, or eliminating taxpayer-supported capital projects:
  - 66 secondary schools (\$60 million each); or,
  - 11 hospital projects similar to the North Island Hospitals (Province's share, \$365 million); or,
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- 99% of Class 1-5 agricultural lands (capable of crop production) in the Peace Agricultural Region will not be affected by Site C. Permanent loss of approximately 3,800 hectares of class 1-5 agricultural lands leaves approximately 2.7 million hectares of Class 1 to 5 lands available for agricultural production in the Peace Agricultural Region.

#### **New Management Direction**

- A new Project Assurance Board made up of BC Hydro, independent experts and
  government representatives will provide enhanced oversight to future contract
  procurement and management, project deliverables, environmental integrity, and quality
  assurance all within the mandate of delivering the project on time and budget. Based
  on current projections, BC Hydro has revised the budget to \$10.7 billion.
- EY Canada has been retained by BC Hydro to provide dedicated budget oversight, timeline evaluation and risk assessment analysis for the duration of the project.

#### Agriculture

- Activate the \$20 million agricultural compensation fund established to offset lost sales and stimulate agriculture enhancements in the Peace region.
- Government will establish a new dedicated BC Food Security Fund based on Site C revenues – dedicated to supporting farming and enhancing agricultural innovation and productivity throughout B.C.

#### **Community Benefits**

New Community Benefits Programs will be established with a mandate to ensure that
project benefits flow to local communities, and increase the number of apprentices and

- First Nations workers hired onto the project.
- The Peace River Legacy Fund will be used to implement solutions to longer-term environmental, social and economic issues.
- Government will explore options for relocating Site C worker accommodations, post completion, to a local skills-training institution.

#### **First Nations**

- As a component of the comprehensive review of BC Hydro, the Province and BC Hydro
  will consider the development of a new procurement stream for smaller-scale renewable
  electricity projects where Indigenous Nations are proponents or partners to create local
  employment and commercial opportunities throughout B.C. as well as environmental
  benefits with the replacement of diesel or fossil fuel-based energy installations. The
  Ministry of Energy, Mines and Petroleum Resources and the Ministry of Finance will bring
  these proposals to government by fall 2018.
- BC Hydro and the Ministry of Transportation and Infrastructure will work with Treaty 8
   First Nations and others to redesign the Highway 29 realignment at Cache Creek to
   reduce the effects on potential burial sites and sacred places. BC Hydro will invite
   proposals from Treaty 8 First Nations for this roadbuilding work.
- The Ministry of Indigenous Relations and Reconciliation and BC Hydro will continue to engage Treaty 8 First Nations to seek additional solutions to mitigate the adverse impacts of Site C, and to advance reconciliation.
- The Province will continue recent direct government engagement with First Nations to seek input into the design of a Peace River Legacy Fund and establish a collective Treaty 8 project advisory committee.
- Work will continue in addressing cultural concerns, enhancing business opportunities, and retaining funding/land transfers and contract opportunities.

#### Contact:

Suntanu Dalal Media Relations Ministry of Energy, Mines and Petroleum Resources 250 952-0628

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#### **BACKGROUNDER 2**

Not Approved Office of the Premier Dec. 11, 2017

#### From private power to Site C: Bad decisions that shaped B.C.'s electricity policy

Government's decision to proceed with the completion of Site C was driven, in large part, by a series of bad energy policy decisions made over the past decade and a half that put politics ahead of people. These decisions significantly increased the province's intermittent electricity energy supply and forced upward pressure on electricity rates.

In 2002, the previous government introduced the Energy Plan that mandated that all new power generation opportunities were reserved for private power producers. Through the extensive use of electricity purchase agreements, the board of BC Hydro made long-term commitments to purchase a large supply of new intermittent power, primarily through run-of-river power projects, at prices considerably higher than produced by BC Hydro's heritage hydroelectric assets.

The board of BC Hydro committed to more than 135 contracts with an average term of 28 years. And while power generated by BC Hydro's heritage assets cost \$32 per MWh, power from IPPs cost \$100 per MWh. Today these contracts represent future financial commitments of over \$50 billion.

The Energy Plan also changed the structure of BC Hydro and established a standalone BC Transmission Corporation to allow private power producers to access the transmission system and to sell directly to large consumers.

At the same time that BC Hydro was directed to accommodate this new supply of intermittent power, the previous government also instructed BC Hydro to decommission its Burrard Generating Station in Metro Vancouver to address growing concerns about local air pollution and greenhouse gas emissions.

As BC Hydro lost needed electrical capacity to backstop its new intermittent power supply, it was forced to seek new capacity or "firm" power, the type traditionally provided by hydroelectric facilities like Site C.

In 2010, the old government introduced the Clean Energy Act, which exempted a number of BC Hydro projects and power procurement activities from independent review by the BC Utilities Commission including Site C, the Clean Power Call, the Smart Metering Program and the Northwest Transmission Line.

The former government then compounded the financial problems at BC Hydro by directing the corporation to pay dividends to the province from funds BC Hydro had to borrow. The cost of this debt is a direct cost to BC Hydro ratepayers.

Between 2001 and 2017, the old government directed BC Hydro to increase its liabilities held in regulatory accounts from \$116 million to \$5.597 billion. These costs will have to be recovered

from ratepayers in the future.

As a result of these earlier policy decisions, the old government saddled BC Hydro with a new supply of long-term expensive intermittent power, without the electrical capacity to maintain reliable service to its customers.

Faced with challenges of its own making, the old government decided to push ahead with Site C without allowing review by British Columbia's independent regulator, the BC Utilities Commission.

#### Contact:

Suntanu Dalal Media Relations Ministry of Energy, Mines and Petroleum Resources 250 952-0628

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#### **BACKGROUNDER 3**

Not Approved Office of the Premier Dec. 11, 2017

#### Site C termination implications for BC Hydro customers and British Columbia taxpayers

The decision to proceed with construction of Site C was primarily driven by a determination that British Columbians should not have to take on \$4 billion in debt with nothing in return for the people of this province and, even worse, with massive cuts to the services they count on.

Analysis conducted by the Ministry of Finance, Ministry of Energy, Mines and Petroleum Resources, and external experts on the BC Utilities Commission (BCUC), report concluded that completing Site C will be significantly less costly to British Columbians than cancelling the project.

In its report, the BCUC estimated that BC Hydro would need to spend an additional \$1.8 billion for termination and site remediation costs if it were to cancel the project. This is in addition to the \$2.1 billion of sunk construction and planning costs that will have been spent by the end of December 2017.

Faced with an immediate and unavoidable \$4-billion debt, the Province would have to recover these costs from either BC Hydro customers or taxpayers. As a regulated utility, BC Hydro is obligated to file a plan with the independent BCUC, which would ultimately determine the course of action it deemed most appropriate.

The BCUC did not take a position with respect to the options for debt recovery, however, government conducted extensive analysis of the fiscal and rate implications of likely debt recovery options.

If the BCUC determined that BC Hydro could recover the nearly \$4 billion in Site C costs from its customers, the commission would then have to decide what the repayment period should be:

- Under a 10-year recovery period, BC Hydro customers could face a one-time 12.1% rate
  increase that would last for the next decade. This would be in addition to any other rate
  increases required to cover BC Hydro's ongoing debt servicing and other operating costs,
  including recovery of its rate deferral accounts.
- Under a longer recovery period of 70 years, customers would not face short-term rate
  impacts. Such a move would, however, force future generations to pay for a valueless
  asset from which they never receive benefits. This course of action would also increase
  the risk that provincial bond rating agencies would bring into question BC Hydro's
  financial sustainability, thus increasing the risk that BC Hydro's entire debt load becomes
  viewed as non-commercial. This would place significant pressure against the Province's
  AAA credit rating and annual borrowing costs.

If the BCUC decided that BC Hydro should not recover the \$4 billion of Site C debt from its customers, the corporation and the Minister of Finance would face two options that would significantly affect B.C. taxpayers.

If BC Hydro retained the \$4 billion debt:

- It would first be obligated to write off the Site C costs as unrecoverable, thus causing BC
  Hydro and the Province to slip into significant deficits. The corporation would then face
  an even higher risk of no longer being viewed by rating agencies as self-supporting and
  having its entire debt reclassified as non-commercial.
- Such a move would significantly risk the Province losing its AAA rating with a resultant increase in borrowing costs, thus reducing the annual budget available for key priority spending areas.

If government itself chose to assume the nearly \$4 billion of Site C debt – thus safeguarding BC Hydro:

- It would immediately increase B.C.'s level of taxpayer-supported debt from about \$44.6 billion to \$48.6 billion.
- This increase would also erode the Province's key fiscal sustainability debt-to-revenue ratio by seven to eight percentage points – a measure critically assessed by provincial bond-rating agencies and ultimately determines the Province's borrowing and debtservicing costs.
- Taking on the Site C debt into government taxpayer-supported debt would likely
  eliminate planned increases in provincial capital spending over the next two years. For
  context, \$4 billion in assumed Site C debt could pay for the equivalent of:
  - 66 secondary schools (\$60 million each); or
  - 11 hospital projects similar to the North Island Hospitals (Province's share \$365 million); or
  - 12 highway projects similar to the Okanagan Valley Corridor Project (Province's share \$ 330 million); or
  - three Pattullo Bridges (\$1.3 billion each).
- This additional taxpayer-supported debt load would also increase operating costs in the provincial budget by \$120 million to \$150 million annually – putting at risk the services British Columbians count on.

#### Contact:

Suntanu Dalal Media Relations Ministry of Energy, Mines and Petroleum Resources 250 952-0628

Connect with the Province of B.C. at: <a href="news.gov.bc.ca/connect">news.gov.bc.ca/connect</a>

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#### NEWS RELEASE

For Immediate Release [release number]
Dec. 11, 2017

Office of the Premier

### Government will complete Site C construction Will not burden taxpayers or Hydro customers with previous government's debt

VICTORIA – The B.C. government will complete construction of the Site C hydroelectric dam, saying that to do otherwise would put British Columbians on the hook for an immediate and unavoidable \$4-billion bill – with nothing in return – resulting in rate hikes or reduced funds for schools, hospitals, and important infrastructure.

"Megaproject mismanagement by the old government has left B.C. in a terrible situation," said Premier John Horgan in making today's announcement. "But we cannot punish British Columbians for those mistakes and we can't change the past, we can only make the best decision for the future.

"It's clear that Site C should never have been started. But to cancel it would add billions to the province's debt – putting at risk our ability to deliver housing, child care, schools and hospitals for families across B.C. And that's a price we're not willing to pay," said Horgan.

Had government decided to cancel Site C, it would have taken on the project's \$3.9 billion in debt, made up of \$2.1 billion already spent and another \$1.8 billion in remediation costs. As public debt, it would become the responsibility of BC Hydro customers or taxpayers.

"We will not ask British Columbians to take on \$4 billion in debt with nothing in return for the people of this province and, even worse, with massive cuts to the services they count on.

"The old government recklessly pushed Site C past the point of no return, committing billions of dollars to this project without appropriate planning and oversight. Our job now is to make the best of a bad deal and do everything possible to turn Site C into a positive contributor to our energy future."

The premier says that in moving forward with the project, his government will launch a Site C turnaround plan to contain project costs while adding tangible benefits. The plan will include:

- A new Project Assurance Board that will provide enhanced oversight to future contract
  procurement and management, project deliverables, environmental integrity, and quality
  assurance all within the mandate of delivering the project on time and budget. Based on
  current projections, BC Hydro has revised the budget to \$10.7 billion.
- Establishing new Community Benefits Programs, mandated with making sure that project benefits
  assist local communities, and increasing the number of apprentices and First Nations workers
  hired onto the project.
- A new BC Food Security Fund based on Site C revenues dedicated to supporting farming and enhancing agricultural innovation and productivity across BC.

In addition to funding for provincewide food security initiatives, the turnaround plan will:

- Ensure the Peace River Legacy Fund implements solutions to longer-term environmental, social and economic issues.
- Activate the \$20-million agricultural compensation fund to offsets lost sales and stimulate longterm productivity enhancements in Peace Valley agriculture.

"We're taking the steps the previous government showed no interest in: a solid budget, enhanced review and oversight, community benefits, and an eye to the future," said Horgan.

"We're putting an end to the years of energy policy that put politics ahead of people – where government forced BC Hydro into costly contracts, hiking rates for homeowners and renters, and delivering dividends to government it simply couldn't afford."

Horgan adds his government will also be pursuing an alternative energy strategy to put B.C more firmly on the path to green, renewable power that helps the province exceed its climate goals.

"I respect and honour the commitment of people who oppose Site C, and share their determination to move B.C. to a clean, renewable energy future and to embrace the principles of reconciliation with Indigenous communities," said Horgan, who acknowledged that Site C does not have the support of all Treaty 8 First Nations. "We know this decision is not what some First Nations wanted. Their voices were heard and their perspectives were an important part of the deliberations on a very challenging decision."

"As we move forward, I welcome ideas from across our province as we define an energy strategy that protects our environment, delivers on our climate responsibilities, powers future generations, and creates jobs and opportunities for all British Columbians."

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Media contact:

Jen Holmwood etc

# Site C Technical Briefing

Don Wright
Deputy Minister to the Premier
December 11, 2017



# After review by BCUC, meeting with Treaty 8 First Nations, advice from independent experts and lengthy deliberation

Cabinet has made the difficult decision to complete Site C construction



### Outline of Technical Presentation

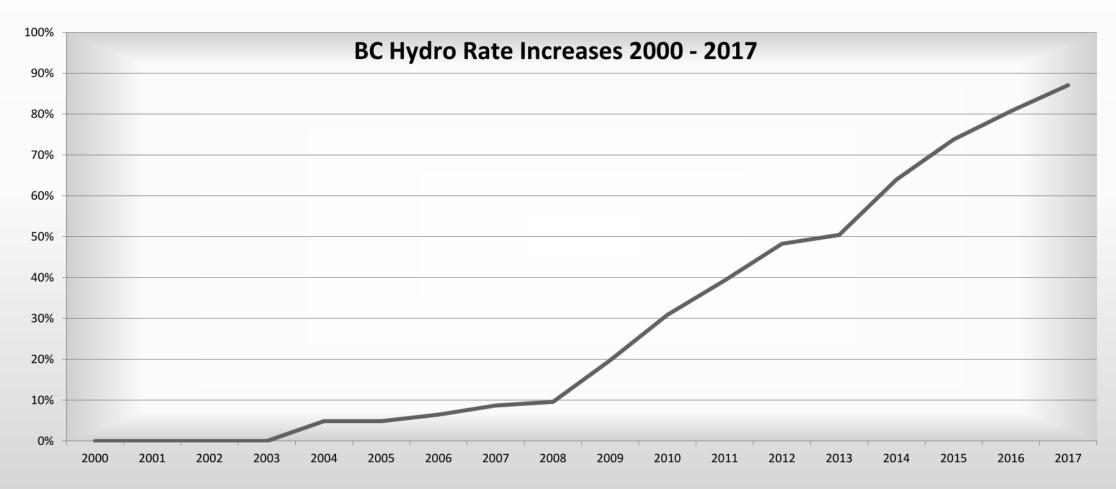
- I. Historical Context
- II. Government's Decision Criteria
- III. Revised Cost Estimates
- IV. Ratepayer Impacts
- V. Fiscal Impacts/Risks
- VI. Concluding Comments



## I. Historical Context



# Hydro Rates Have Been Rising Significantly Since 2003





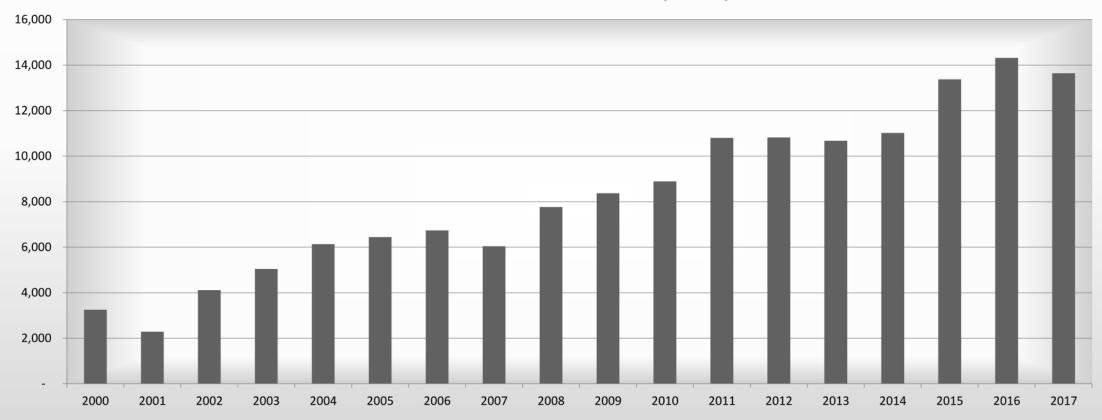
# New Power More Expensive Than Heritage Assets

Heritage Assets	Average of IPP	Projected Site C
\$32 / MWh	\$100 / MWh	\$60 / MWh



## IPP Share of Supply Growing

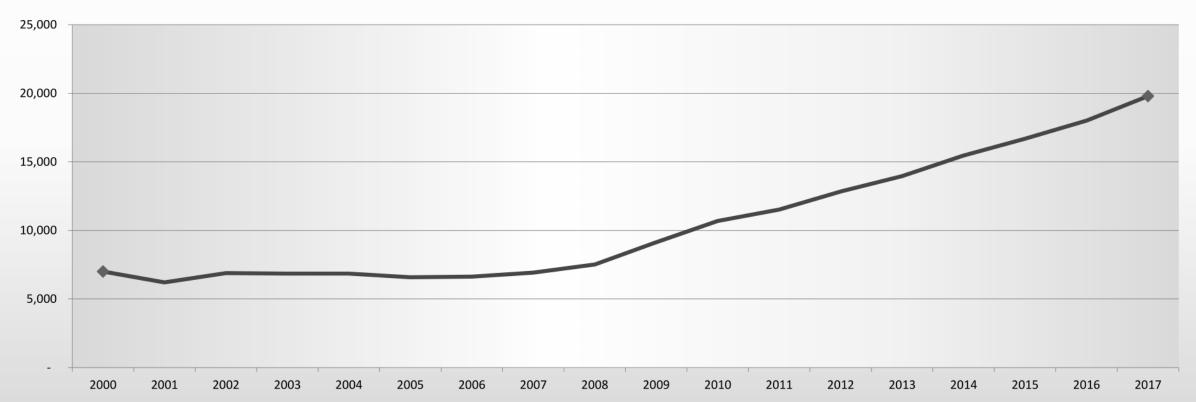
#### **IPP Historical Generation (GWh)**





## BC Hydro Debt is Growing

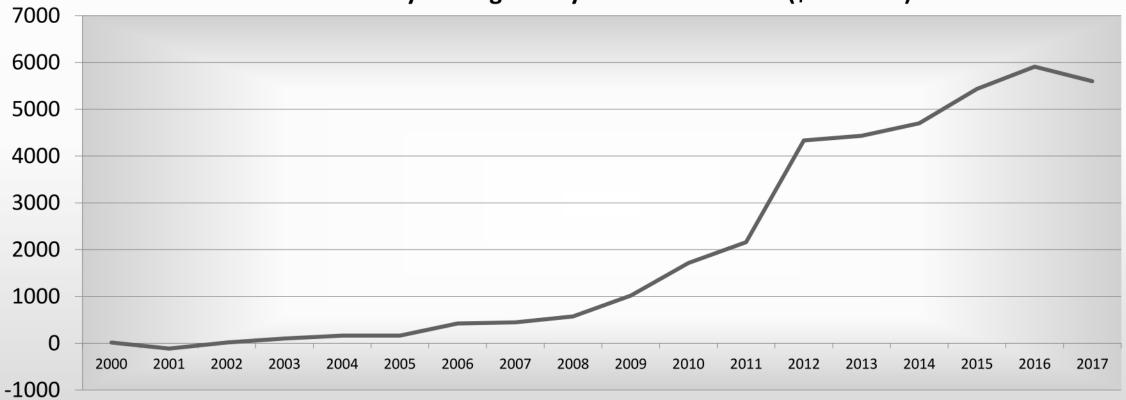
#### **BC Hydro Net Long-Term Debt (\$ Millions)**





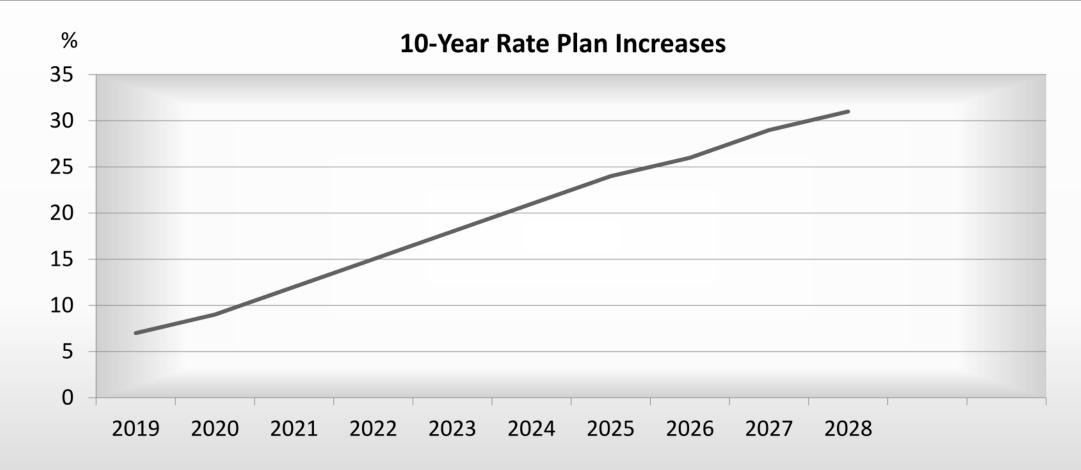
# BC Hydro's Regulatory Account Balance Is Growing

#### **BC Hydro Regulatory Account Balances (\$ Millions)**





# Current 10-Year Rate Plan Schedules Further Increases





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### II. Government's Decision Criteria



#### Criteria

- 1. Ratepayer Impact
- 2. Fiscal Impact / Risks
- 3. First Nation Impacts
- 4. GHG Targets
- 5. Agriculture / Food Security



### III. Revised Cost Estimates



### Projected Cost to Complete: \$10.7 Billion

- 2014 approval was for \$8.335 billion
  - With an additional \$440 million risk reserve
  - For a total of \$8.775 billion
- Costs to date have exceed budgeted amounts
- One-year delay of river diversion estimated to increase costs by \$610 million
- Future contracts projected to be higher than budgeted amounts
- Current mid-point estimate is now \$9.992 billion
  - \$1.657 billion over 2014 estimate
- Given what has happened to date, risk reserve has been increased



### Change in Cost Estimate

#### \$ millions

Cost	2014	Current
Direct Costs	4,940	5,839
Indirect and Overhead	1,194	2,010
Contingency	794	858
Interest before completion	1,407	1,285
<b>Total Before Risk Reserve</b>	8,335	9,992
Risk Reserve	440	708
Total	8,775	10,700



#### Comments on Cost Escalation

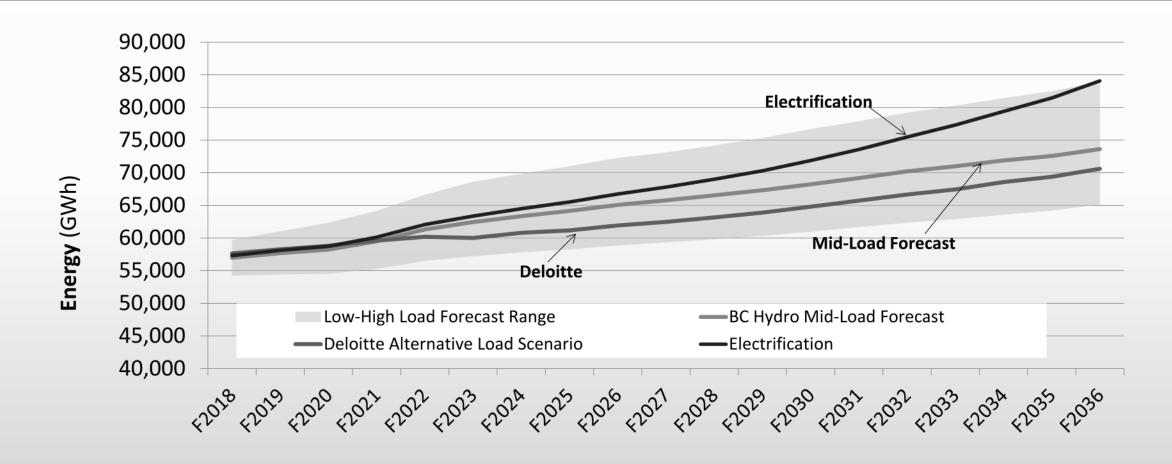
- Government will be putting in place enhanced oversight to ensure final costs are at or below \$10.7 billion
- \$10.7 billion is used in making comparisons of the continue versus terminate scenarios



# IV. Rate Impacts



### Comparison of Load Forecasts



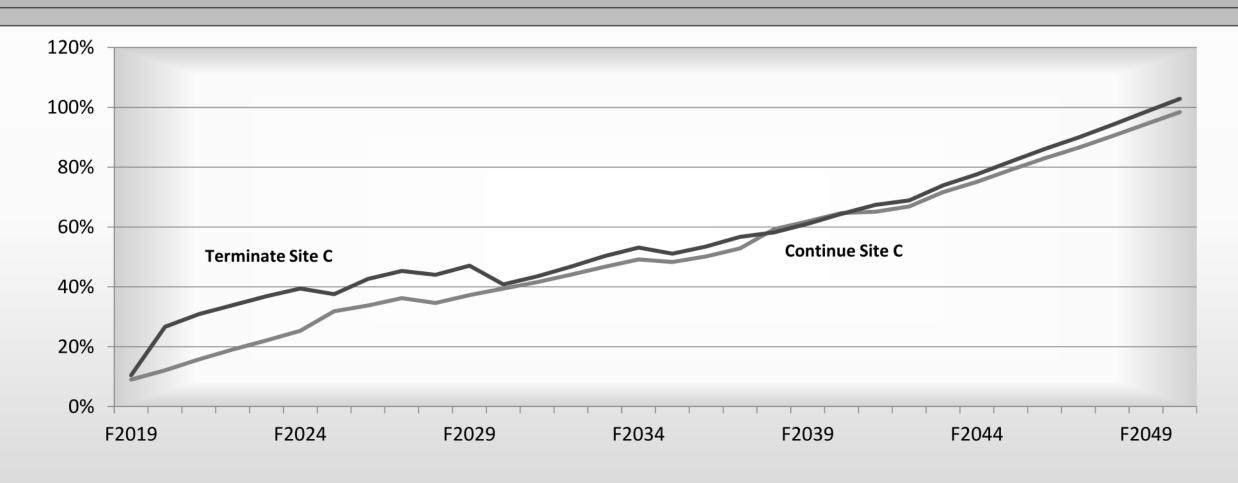


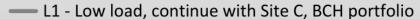
### Rate Impact Analysis Assumptions

- BCUC Low Load Forecast
- BCUC "Alternative Portfolio" assumptions
- \$10.7 B Site C Cost
- 10 year amortization of \$4 billion in termination scenario



### Rate Impacts Under a Low Load Forecast





L2 - Low load, terminate Site C, pursue BCUC portfolio



### What Is The Impact On Ratepayers?

#### **Complete Site C**

 Rate impact 1.1% in 2025, and 1.1% in 2026 under a rate smoothing scenario over 10 years, then decreasing (assuming revised \$10.7B project cost)

#### **Terminate Site C**

- Increases rates, starting in 2020 to recover sunk and termination costs
- A 12% rate increase would need to be in place for 10 years



### Impact of Terminating Site C on Customers

#### Results in a rate increase of 12%, effective 2020



#### Single Family Home, Vancouver Island

Annual hydro bill \$1,650



#### **Lumber Mill, BC Interior**

Annual hydro bill \$1.6 million
 +\$192,000 / year

+\$198 / year



#### **Medium Data Centre**

Annual hydro bill \$1.5 million
 +\$180,000 / year



#### **Large Lower Mainland Hospital**

Annual hydro bill \$3.1 million
 +\$372,000 / year

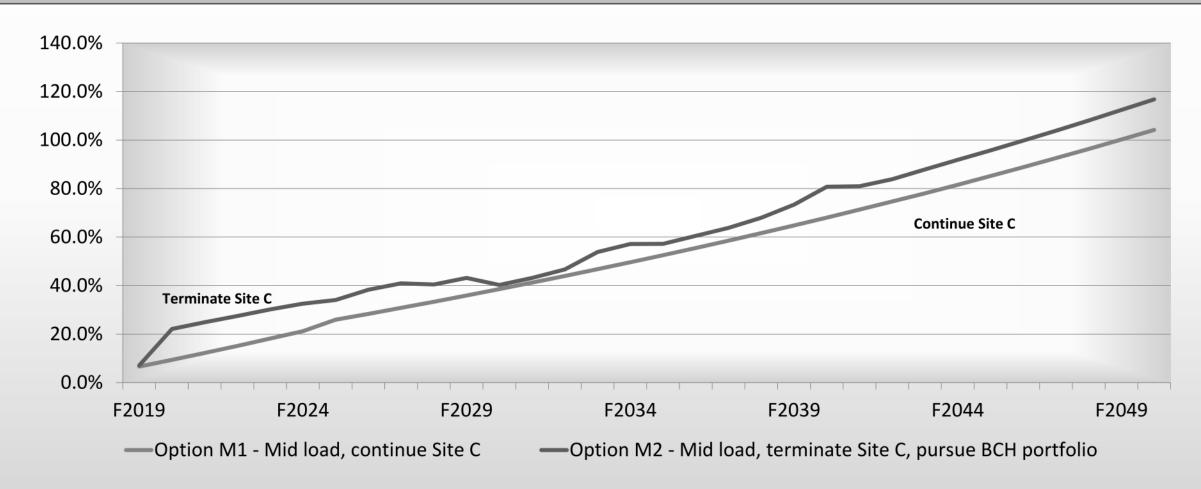


### Demand Affects Relative Rate Impact

 If demand exceeds low load forecast, relative advantage of complete scenario increases over terminate scenario



### Rate Impacts Under a Mid Load Forecast





# V. Fiscal Impacts / Risks



#### Some Inconvenient Arithmetic

- If government decided to terminate, \$4 billion in debt has to be absorbed by someone
  - Ratepayers
  - BC Hydro
  - Taxpayers
- The previous section looked at the implications if ratepayers absorbed the cost



### Could BC Hydro Absorb Termination Costs?

- They could
- But this would
  - Wipe out more than 80% of BC Hydro's equity
  - The \$4 billion loss would still be consolidated on the books of the Government Reporting Entity
  - Involve ongoing debt interest costs of \$120-150 million per year



### Biggest Risk Of The Hydro Absorb Scenario

- In a scenario where BC Hydro was to absorb the \$4 billion termination costs:
  - Credit rating agencies could determine that BC Hydro was no longer a commercially viable entity
     Resulting in \$20 billion debt being reclassified as taxpayer-supported debt
    - Likely leading to a downgrade of the Province's credit rating
    - Resulting in higher interest costs for the (then) \$65 billion in taxpayer-supported debt



# Could the Minister of Finance Absorb Termination Costs?

- Central Government's Consolidated Revenue Fund would take on the \$4 billion of debt and recapitalize BC Hydro
- This would likely preserve BC Hydro's status as a commercial entity
- But...



### Having the Minister of Finance Absorb Termination Costs Would

- Still entail a \$4 billion loss in Government Reporting Entity
- Still involve \$120-\$150 million / year in interest costs that would have to be serviced
- Could lead to a credit rating downgrade, adding even more debt interest costs to taxpayers
- Crowd out room for new capital project spending
  - Schools, hospitals, housing, bridges, highways, etc.



### What is \$4 Billion Equivalent To?



66 secondary schools (\$60 million each); or,



11 hospital projects similar to the North Island Hospitals (Province's share \$365 million); or,



12 highway projects similar to the Okanagan Valley Corridor Project (Province's share \$ 330 million); or,



3 Pattullo Bridges (\$1.3 billion each).



# VI. Concluding Comments



### In Summary

- Very tough decision for Government
- Decision to proceed primarily driven by need to:
  - Minimize impacts on BC Hydro ratepayers
  - Preserve the fiscal room to build schools, hospitals, housing, bridges etc.



