

Site C

Technical Briefing

How to Justify an Appalling Project to Provincial Dunces in Victoria

Don Wright
Deputy Minister to the Premier
December 11, 2017



Instead of Honouring First Nations, Considering GHG's

**and Agricultural Potential and
After review by BCUC, meeting with Treaty 8
First Nations, advice from independent experts
(which we chose to ignore), and lengthy deliberation**

**Cabinet has made the difficult decision to
complete Site C construction**

a very lame excuse for not taking responsibility



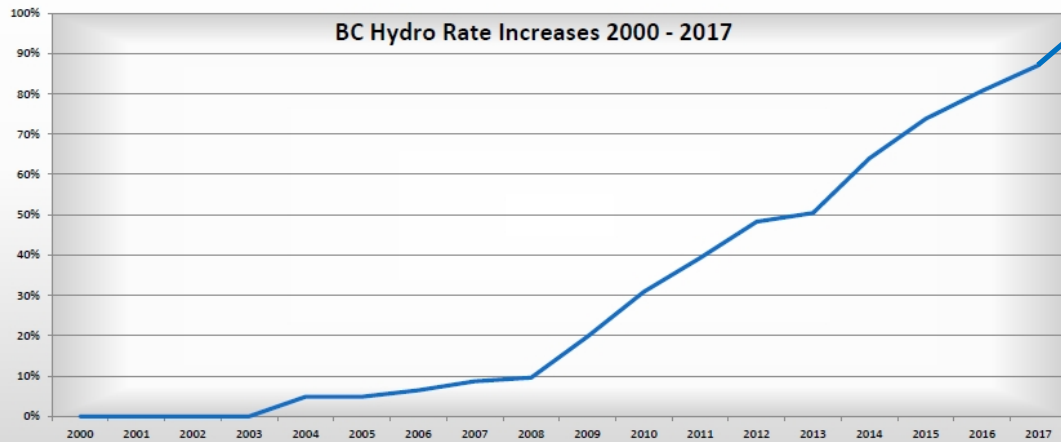
Outline of Technical Presentation

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

I. Historical Context

Your text here

Hydro Rates Have Been Rising Significantly Since 2003 With Liberal Government

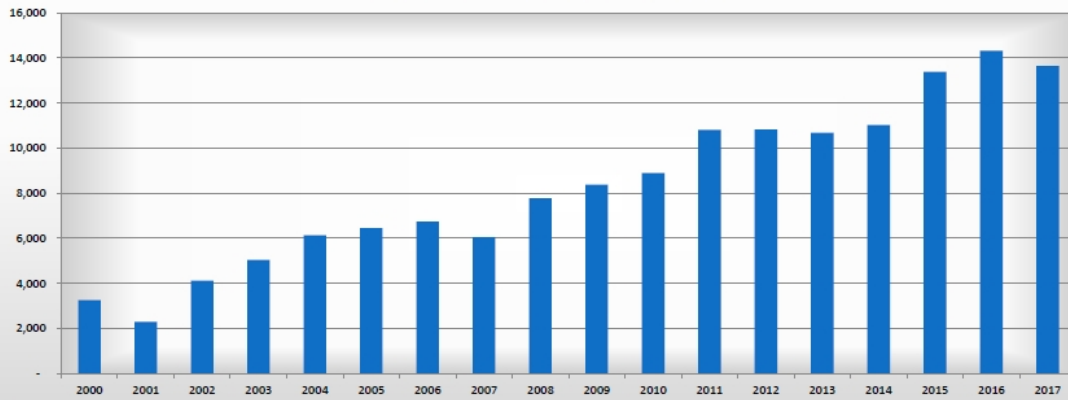


New Power More Expensive Than Heritage Assets, Site C More Expensive Than Alternatives

Heritage Assets	Average of IPP	Projected Site C
\$32 / MWh	\$100 / MWh	\$120 \$60 / MWh
DSM \$20 to \$30/MWh	Alternative Portfolio (BCUC)	\$32/MWh

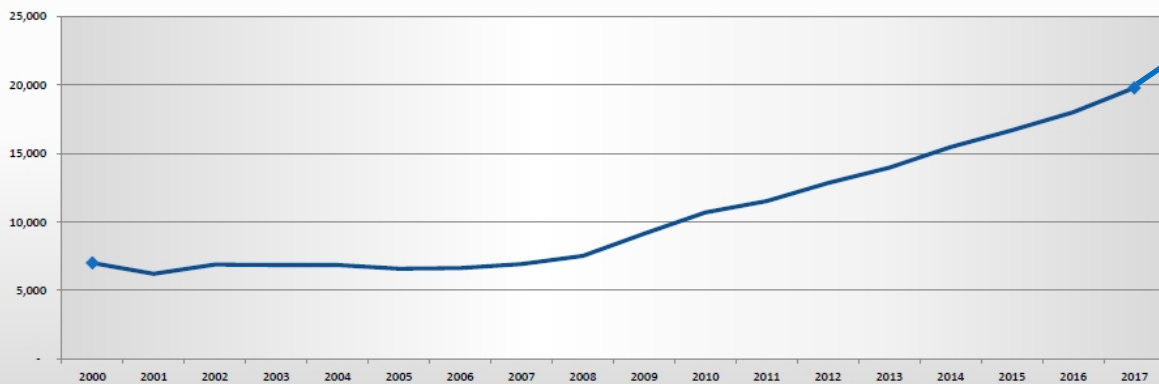
Due to Over-Purchase by BC Hydro, IPP Share of Supply Growing

IPP Historical Generation (GWh)

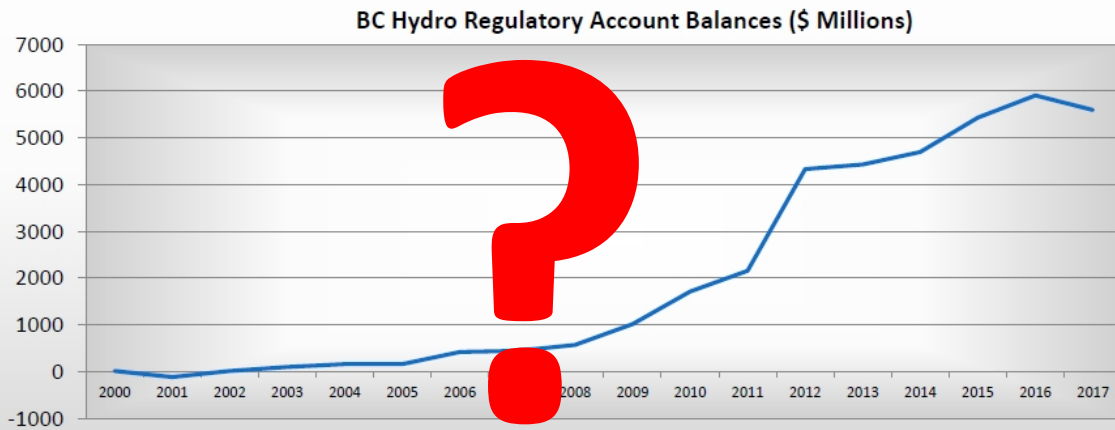


Due to Fiscal Mismanagement by Government BC Hydro Debt is Growing

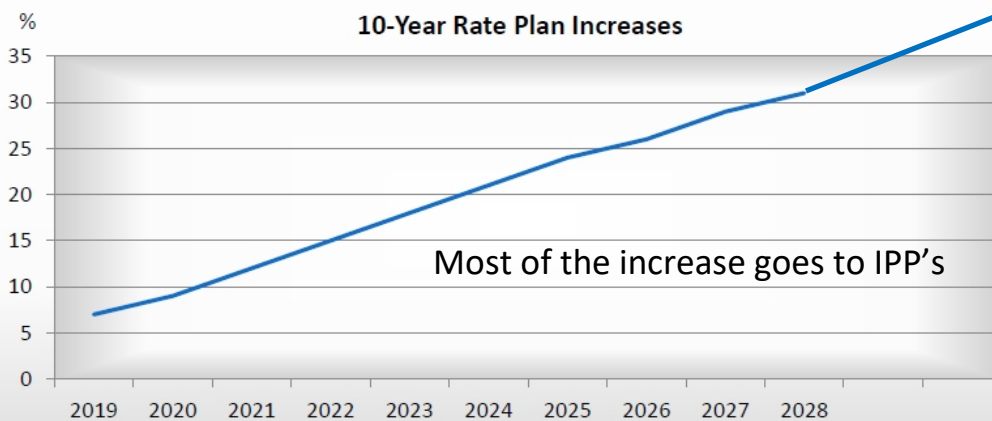
BC Hydro Net Long-Term Debt (\$ Millions)



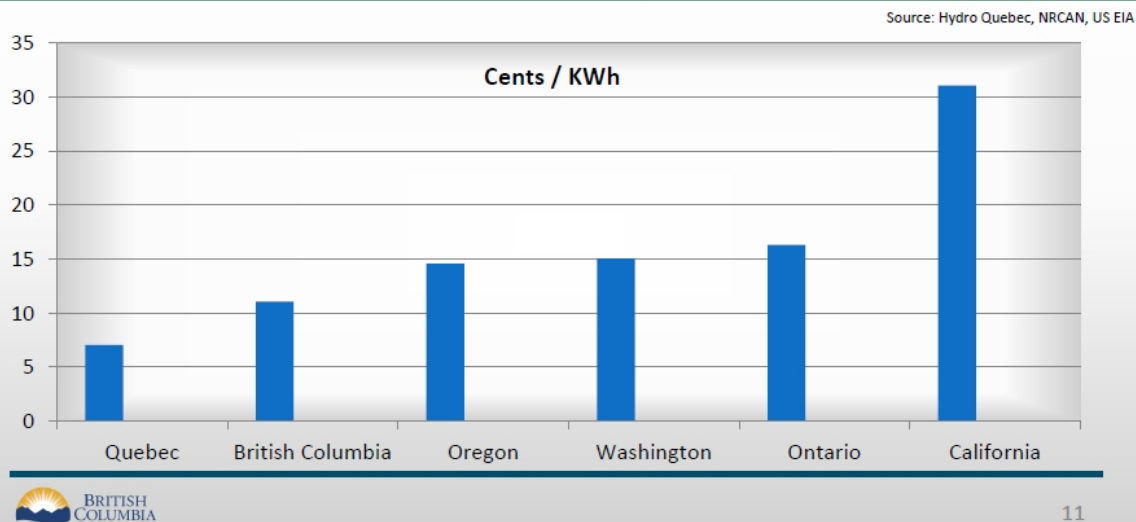
BC Hydro's Regulatory Account Balance Is Growing Due to Liberal "Bookkeeping"



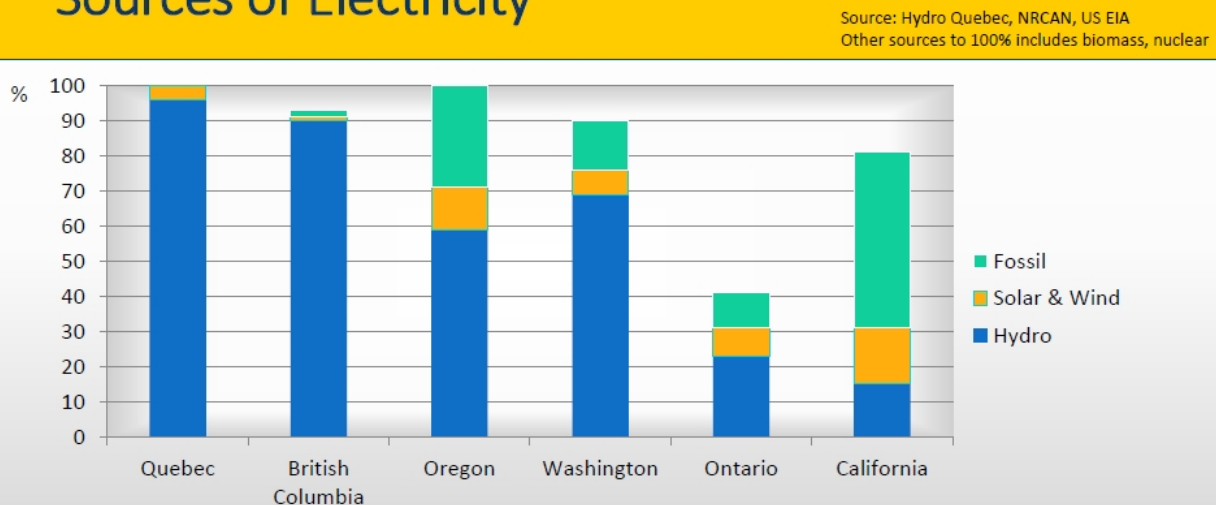
Current 10-Year Rate Plan Schedules Further Increases To Pay for Liberal Mismanagement



Let's All Feel Good About Our Rates in BC: How Our Rates Compare, Residential



Here is more important information you need: Sources of Electricity



II. Government's Decision Criteria

Criteria

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

Only the first two are important

We don't want to discuss these issues, so we will just ignore them in the briefing

Comment – “I'd like to create a Facebook album with some of Wright's slides.

Who briefed him for God's sake?

Comment on later slide, with the “rationale” of wasting \$4 Billion on sunk costs, what about the wasting of another \$8 Billion on a project we do not need?

III. Revised Cost Estimates For This Week

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 This Month

\$ millions

Cost	2014	Current	%
Direct Costs	4,940	5,839	+18
Indirect and Overhead	1,194	2,010	+68
Contingency	794	858	+8
Interest before completion	1,407	1,285	- 9
Total Before Risk Reserve	8,335	9,992	+20
Risk Reserve	440	708	+61
Total	8,775	10,700	+22



17

Decommissioning	(\$1 Billion	1,000
Agricultural Value Lost (\$150 Million/yr)		10,500
Total Real Cost		22,200

Carbon Sequestration – Natural Capital Value - \$7 Billion/yr (Suzuki Foundation)

Comments on Cost Escalation

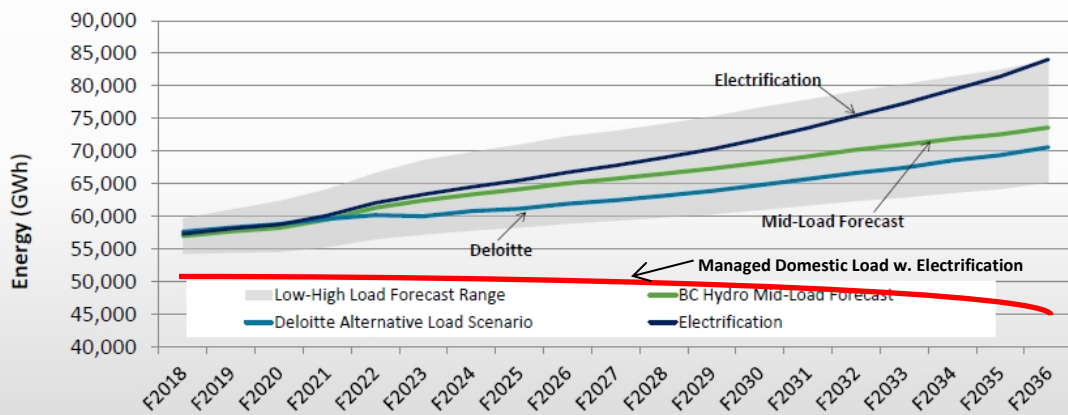
- Government will be putting in place enhanced oversight to ensure final costs are at or below \$10.7 billion
- \$10.7 billion is used in making comparisons of the continue versus terminate scenarios
- **Government does not include the cost of Decommissioning or Lost Agricultural Value because a \$22 Billion project could not be justified, even using deceit**



18

IV. Rate Impacts

Comparison of Load Forecasts

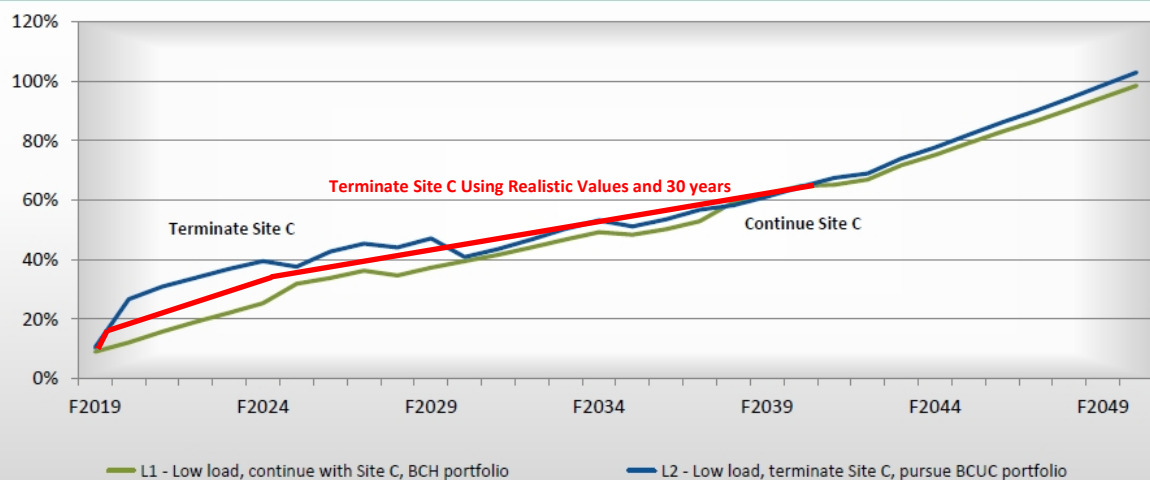


Managed Domestic Load – Intensive Conservation (DSM 5), Advanced Load Management, Trade and Other Sales excluded, Replacement of BC Hydro supplies with Community and homeowner systems, includes effects of long term elasticity. Even with electric vehicles demand declines.

Rate Impact Analysis Assumptions To Scare People

- BCUC Low Load Forecast (Except Slide 26, uses high cost BCH portfolio)
- BCUC “Alternative Portfolio” assumptions
- \$10.7 B Site C Cost
- 10 year amortization of \$4 billion in termination scenario
(It would not be as scary if 30 years were used)

Rate Impacts Under a Low Load Forecast



What Is The Impact On Ratepayers?

Complete Site C	Terminate Site C
<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> Increases rates, starting in 2020 to recover sunk and termination costs A 12% rate increase would need to be in place for 10 years Using a realistic 30 years, and 3.5% interest requires \$190 million/year, or 3.8% rate hike!







A 12% increase would generate \$600 million/yr on Total Revenue of \$5 billion/yr. Repaying the funds wasted to date, at 3.5% interest for 30 years, only requires \$190 million per year; the value of intensive agriculture from the valley. **That means ratepayers would be overcharged by almost 3 times!** It is probable that remediation and termination could cost \$3.5 Billion, not \$4 Billion.

Impact of Terminating Site C on Customers

Results in a rate increase of 12%, effective 2020

Rate hike 3.8%

	Single Family Home, Vancouver Island <ul style="list-style-type: none"> Annual hydro bill \$1,650 	+\$198 / year	\$63/yr
	Lumber Mill, BC Interior <ul style="list-style-type: none"> Annual hydro bill \$1.6 million 	+\$192,000 / year	\$61k/yr
	Medium Data Centre <ul style="list-style-type: none"> Annual hydro bill \$1.5 million 	+\$180,000 / year	\$57k/yr
	Large Lower Mainland Hospital <ul style="list-style-type: none"> Annual hydro bill \$3.1 million 	+\$372,000 / year	\$118k/yr



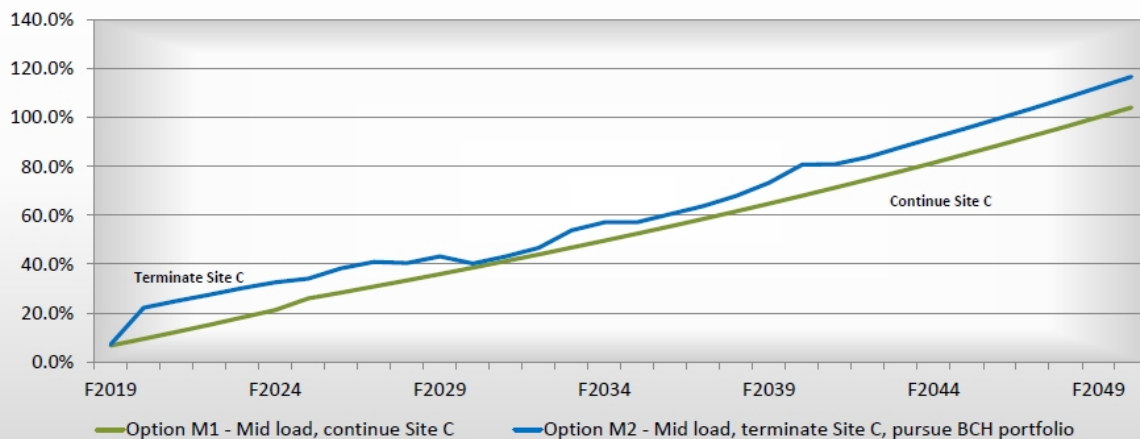
Demand Affects Relative Rate Impact

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

WOW! Doesn't this sound impressive, "Demand Affects Relative Rate Impact"? BUT, this really means if we continue to waste power, ie ignore conservation, BCH will sell more, and lose less money, so Site C does not look quite as hopeless.

Think about it, what if demand continues to decrease? Hmmm. Site C is even more dismal!

Rate Impacts Under a Mid Load Forecast



Option M2, blue line - Note how BC Hydro portfolio was used to deceive so that the rate impact cannot be compared to the BCUC portfolio

Cost to Finish the Dam? How to finance, cost/year of \$7 billion? Even at 70 years; \$270 million/year is equivalent to \$54/MWh, plus O&M, admin, transmission. If sold on market @ \$30, loss of \$24 of \$120 million/year. How much does \$7 Billion buy?

V. Fiscal Impacts / Risks

Risk- NDP party is finished?

Some Inconvenient Arithmetic

- If government decided to terminate, \$4 billion in debt has to be absorbed by someone (Former gov't, BCH Management)?
 - Ratepayers
 - BC Hydro
 - Taxpayers
- The previous section looked at the implications if ratepayers absorbed the cost over an artificially short time, 10 years, at 8% interest rate to badly distort the impact. At 30 years, 3.5% interest, the rate increase is 3.8%! LIARS!

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
 - Enable a rich valley to produce \$150 million/yr in agricultural products.

Note - NDP Government already cancelled tolls on bridges worth \$4 billion, and cut MSP premiums, with no debate.

Add more slides?

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
 - It has been established by Moodys that a downgrade would NOT occur, and that this statement is FALSE. In Fact, terminating this financially disastrous project would improve the credit-worthiness of BC.

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...

Remember – the NDP Government already cancelled tolls on bridges worth \$4 Billion, and cut MSP premiums, with no debate.

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.~~

This sounds really scary, because it is blatantly untrue! Intense agriculture is worth \$150 million/yr. Moodys assures no downgrade. If continued, Site C would be a \$7 Billion loss.

What is \$4 Billion Equivalent To? **\$7 Billion?**



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

115 secondary schools



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

19 hospitals



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

21



3 Pattullo Bridges (\$1.3 billion each).

5.25 Bridges

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.
- Ignoring the Three Other Criteria and Impacts of continuing - \$7 Billion wasted,
 - lost Agricultural Revenue of \$150 million/year,
 - First Nations Devastation
 - Greenhouse Gas increases from reservoir, use of power for fracking and methane

