

ADVICE TO MINISTER

**CONFIDENTIAL
GCPE-MEM ISSUE NOTE**

Ministry of Energy and Mines

Date: Oct. 5, 2017

Minister Responsible: Hon. Michelle Mungall

SITE C REVIEW – RESPONSE TO BCUC INFORMATION REQUESTS

ADVICE AND RECOMMENDED RESPONSE:

- In its latest filing to the BCUC Site C review BC Hydro has indicated that it will not meet one of the key project milestones – the fall 2019 date to divert the Peace River through bypass tunnels will be delayed by one year.
- Although BC Hydro remains confident it can still complete the project by 2024, BC Hydro has calculated that the one year delay will add \$610 million to the \$8.335 billion budget for the project, taking the budget to \$8.945 billion.
- This demonstrates exactly why we are getting the advice of the BCUC on whether continuing, suspending or terminating the project is the lowest cost option for BC Hydro's ratepayers.
- The Site C review is working – giving the BCUC, Government, and all British Columbians the information, analysis and answers we need to make the right decision on the project.
- The BCUC will use the additional information provided by BC Hydro as it continues through the review process and in completing its final report, due November 1st.
- This is an independent review by the BCUC. I want to respect that process, so I will not make any further comment at this time.
- Once we have the final report, government will consider the advice from the BCUC, along with other environmental and First Nations considerations, and make a final decision on the future of Site C in a timely manner.

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If asked – about BC Hydro transparency:

- In past quarterly reports BC Hydro has been fully transparent about pressures to the Site C schedule and budget arising from tension cracks in the left bank and construction challenges.
- BC Hydro further identified these risks in its submission to the Site C review on August 30th.
- Deloitte and the BCUC also identified these risks in their reports of September 8th and September 20th respectively.
- Despite these risks and slow progress on certain areas of the project this past summer, BC Hydro felt the fall 2019 river diversion date could still be achieved.
- It was just last week, after further review and meetings with executives of the main civil works contractor, that BC Hydro concluded that river diversion would require a one year extension.
- The budget implications of the delay were then calculated and reported in the context of other information provided to the BCUC on October 4.

If asked – about Highway 29 re-alignment:

- The delay in the project and the budget increase is not related to the suspension of work on Highway 29.
- Work to re-align Highway 29 was suspended in June to allow impacted property owners to stay on their land pending a government decision on the future of the project and to allow BC Hydro to consult further with First Nations on the proposed route for the re-alignment.
- Back in June there was an assumption that work on the highway had to start this past summer in order to be complete ahead of river diversion in September 2019.
- However, as described in the BCUC's preliminary report, since that time, the Ministry of Transportation has proposed mitigation measures that would

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have allowed the river diversion to proceed in fall 2019 despite the postponement of highway work.

- It's also worth noting that Deloitte did not comment on the highway 29 work in its description of project risks

If asked – about BC Hydro's load forecast for LNG:

- In its response to questions from the BCUC, BC Hydro has provided justification for its load forecast related to demand from three LNG projects that are under development in B.C. – Woodfibre LNG, FortisBC's Tilbury LNG Phase 2, and Shell Canada's LNG Canada project.
- BC Hydro's response is available publicly and I would direct you to the BCUC Site C review website for further details.
- BC Hydro has stated that its load forecast shows that Site C is needed with or without demand from the LNG industry to meet an increase in demand of almost 40 per cent over the next 20 years.
- As part of its final report the BCUC will provide its assessment of BC Hydro's load forecast.

KEY FACTS REGARDING THE ISSUE:

Between September 29 and October 4, 2017, BC Hydro filed with the BCUC the answers to over 100 information requests raised by the BCUC in its preliminary report for the Site C review.

As part of the response filed on Oct. 4, BC Hydro indicates that due to challenges arising from tension cracks on the left bank and construction challenges, the key September 2019 deadline for diversion of the Peace River into bypass tunnels will not be met. Due to seasonal river flows, not meeting that deadline means river diversion will have to be delayed by a full year, with impacts to the project schedule and budget.

While there is a one-year contingency or schedule float built into the project schedule, and BC Hydro remains confident it can complete the project by 2024, BC Hydro has calculated that the one year delay will add 7.3% or \$610 million to the \$8.335 billion budget for the project, taking the total budget to \$8.945 billion, not including the \$440 million reserve fund held by the Treasury Board. This additional \$610 million will not come out of the project's contingency, which will be preserved to cover further potential cost pressures.

The geotechnical issues and construction challenges and associated scheduling and budget pressures were identified by BC Hydro in its August 30 submission to the review, and by Deloitte in its Sept. 8 report and by the BCUC in its preliminary report of Sept. 20. All referenced the potential risk of missing the river diversion deadline and adding approximately \$600 million to the budget.

The Site C Project Board and the BC Hydro Board felt that despite slow progress over the summer, the

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fall 2019 date to divert the Peace River through bypass tunnels could still be achieved. However, at a September 27 executive meeting, Peace River Hydro Partners stated they would not meet their contractual milestones, and that river diversion would require a one year extension.

In its Oct. 4 filing BC Hydro also indicates that due to the project's complexity, BC Hydro expects to continue to face risks in other areas, including its second largest procurement (i.e. the generating station and spillways contract) that remains open, and the Highway 29 realignment, and is working to mitigate those challenges.

BC Hydro also finds that:

- If the project were terminated, ratepayers would incur approximately \$3.2 billion – roughly 36 per cent of the updated cost of the project – to recover spent costs, terminate work and remediate the site, without anything to show for it.
- The additional ratepayer cost of securing alternative resources in the event Site C is terminated is substantially higher than the cost to complete Site C. Site C remains the most cost-effective option compared to alternative resources by a wide margin, even under the unlikely +50 per cent cost overrun scenario and coupled with highly optimistic assumptions of the future cost of alternative resource options.
- Site C is well underway, and the progress to date has reduced a number of risks. BC Hydro's portfolio of alternatives to Site C has a risk profile that is overall higher than Site C and is much more expensive.
- Deloitte's proposed portfolio of alternatives would be much riskier for ratepayers, while still being more expensive than Site C.
- Deloitte has acknowledged that their portfolio of alternative resources underestimated cost by 25 per cent, and does not provide sufficient capacity due to reliance on outdated information on BC Hydro facility upgrades.
- Though Site C is now expected to cost more to complete than originally budgeted, proceeding with Site C is better for ratepayers.

BC Hydro concludes that despite the challenges it has encountered and the risks that remain, its analysis continues to confirm that completing Site C as planned is still the most cost-effective option for its customers – that suspending, or terminating the project and finding the power it needs from other sources, “would cost billions more than completing Site C.”

Note: The one year delay and additional \$610 million cost is not associated with the delay of work on the Highway 29 diversion. Work on the highway was suspended in June 2017 to allow impacted landowners to stay on their property and for further First Nations consultation on the highway realignment while the Site C review took place and pending a Government decision on the project. BC Hydro had indicated at that time that the delay in the highway work may put the project at risk of missing the fall 2019 river diversion with a cost of \$630 million. However, as reported in the BCUC's preliminary report on Sept. 20: “The Ministry of Transportation and Infrastructure, under whose jurisdiction the road lies, has since advised that they are “willing to discuss the implementation of mitigation measures that would manage the risk of flooding while allowing River Diversion to continue. BC Hydro states that this development will allow the river diversion to proceed despite the postponement of highway work.”

LNG Load:

In its response to information requests from the BCUC, BC Hydro answered questions related to its forecast for LNG load. The BCUC asked BC Hydro to provide a more detailed justification for why it considers it appropriate to continue to include each of FortisBC Tilbury LNG Phase 2, Woodfibre LNG and Shell Canada' LNG Canada in its load forecast. Note that the Pacific Northwest LNG project in Prince Rupert, that was cancelled in July by Petronas, was not planning to take power from BC H. BC Hydro responded that one major justification for including these three LNG projects in its current load

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forecast is the fact that they are requesting electricity service. BC Hydro provided detailed justification for the inclusion of each project, concluding that “while there remains significant uncertainty, global LNG demand will continue to grow and there is opportunity for B.C. LNG”.

On October 4, the National Post and Financial Post published stories on BC Hydro’s response to the LNG questions, noting that “an explanation is needed because B.C.’s new NDP government had promised the BCUC would review the need for the \$9-billion Site C dam, which was commissioned to provide power for the province’s nascent LNG industry.”

Since the project was started BC Hydro has stated that its load forecast shows that Site C is needed with or without demand from the LNG industry to meet an increase in demand of almost 40 per cent over the next 20 years. To meet this increased need, BC Hydro is investing in a diverse portfolio of energy supply resources, including over \$100 million per year in conservation programs, a sixth generating unit at the Revelstoke Dam, Site C and close to 20 wind, solar and small hydro projects.

Next Steps in BCUC Review Process:

Community input sessions and First Nations input sessions continue:

Community Input Sessions:

- Vancouver: Saturday, Sept. 23, 1:00–5:00 p.m. 1125 Howe Street , 12th floor
- Kamloops: Sunday, Sept. 24, 6:00–10:00 p.m. Kamloops Coast Hotel Kelowna
- Kelowna: Monday, Sept. 25, 6:00–10:00 p.m. Kelowna Coast Capri
- Nelson: Tuesday, Sept. 26, 6:00–10:00 p.m. Nelson Best Western Hotel
- Prince George: Friday, Sept. 29, 6:00–10:00 p.m. Prince George Ramada Hotel
- Hudson’s Hope Saturday, Sept. 30, 6:00–10:00 p.m. Pearkes Centre
- Fort St. John Sunday, Oct. 1, 6:00–10:00 p.m. Fort St. John Pomeroy Hotel
- Fort St. John Monday, Oct. 2, 6:00–10:00 p.m. Fort St. John Pomeroy Hotel
- Vancouver Thursday, Oct. 5, 6:00–10:00 p.m. 1125 Howe Street , 12th floor
- Nanaimo Tuesday, Oct. 10, 6:00–10:00 p.m. Nanaimo Coast Bastion Hotel
- Victoria Wednesday, Oct. 11, 6:00–10:00 p.m. Delta Ocean Pointe Hotel

BCUC-hosted First Nations Input Sessions:

- Prince George: Friday, Sept. 29, 1:00–4:00 p.m. Prince George Ramada Hotel
- Vancouver: Friday, Oct. 6, 10:00–12:00 p.m. 1125 Howe Street, 12th Floor
- Victoria Wednesday, Oct. 11, 4:00–5:00 p.m. Delta Ocean Pointe Hotel

These sessions are live audio streamed and transcribed and made available on the BCUC website.

Following these input sessions BCUC will afford BC Hydro and select interested parties with the opportunity to provide response to its preliminary report:

Oct. 11: BC Hydro and other interested party written replies to the BCUC preliminary report

Oct. 13-14: Technical Presentation Sessions to provide the BCUC with the opportunity to ask questions of invited speakers and for invited speakers to make an oral presentation to the Panel. BCUC will decide which interested parties it wants to invite to the Technical Presentations. Presenters are requested to focus on the issues raised in the Panel’s Preliminary Report released on Sept. 20, not on submissions they have made. The public is welcome to attend however presentation spots are available and pre-arranged only for the invited speakers. Sessions will also be live streamed on BCUC website

The panel’s final report will be submitted to Government on November 1, 2017.

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