

SIXTH FLOOR, 900 HOWE STREET, BOX 250
VANCOUVER, BC V6Z 2N3 CANADA
web site: <http://www.bcuc.com>



**BRITISH COLUMBIA
UTILITIES COMMISSION**

**ORDER
NUMBER G-68-14**

TELEPHONE: (604) 660-4700
BC TOLL FREE: 1-800-663-1385
FACSIMILE: (604) 660-1102

**IN THE MATTER OF
the Utilities Commission Act, R.S.B.C. 1996, Chapter 473**

and

**British Columbia Hydro and Power Authority
John Hart Generating Station Replacement Project Update
Regarding Methodology of Semi-Annual Reporting**

BEFORE: L.F. Kelsey, Commissioner
H.G. Harowitz, Commissioner
N.E. MacMurchy, Commissioner
I.F. MacPhail, Commissioner
B.A. Magnan, Commissioner
D.M. Morton, Commissioner
R.D. Revel, Commissioner
C. van Wermeskerken, Commissioner

May 29, 2014

O R D E R

WHEREAS:

- A. On February 8, 2013, the British Columbia Utilities Commission (Commission) issued Order C-2-13 granting British Columbia Hydro and Power Authority (BC Hydro) a Certificate of Public Convenience and Necessity (CPCN) for the John Hart Generating Station Replacement Project (the Project). Directives 4, 5 and 6 in the Order provided for deliverables related to the Project to be filed according to the timeline in the Order;
- B. On November 14, 2013, February 3, 2014, February 27, 2014, and April 16, 2014, BC Hydro submitted letters requesting extensions for deliverables related to the Project;
- C. On November 28, 2013, February 6, 2014, March 6, 2014, and April 24, 2014, by Orders G-199-13, G-14-14, G-29-14, and G-58-14, respectively, the Commission granted the requested extensions and set out the date for hosting a workshop with Interveners of this proceeding and with Commission staff to develop a detailed methodology of semi-annual reporting to March 25, 2014 and set out the date for filing the detailed methodology of semi-annual reporting with the Commission for approval on or before Wednesday, April 30, 2014;
- D. On March 25, 2014, BC Hydro hosted a Project reporting workshop to review and obtain feedback on BC Hydro's reporting methodology proposal. BC Hydro invited all Project CPCN proceeding Interveners to the workshop. The workshop was attended by Commission staff and one intervener;

**BRITISH COLUMBIA
UTILITIES COMMISSION**

**ORDER
NUMBER** G-68-14

2

- E. On April 8, 2014, BC Hydro circulated a draft of its proposed Project report methodology to all Project CPCN Interveners for comment. Comments were received on April 14, 2014 from Commission staff and the British Columbia Pensioners' and Seniors' Organization (BCPSO);
- F. On April 30, 2014, BC Hydro submitted its proposed detailed methodology of semi-annual reporting for approval by the Commission; and
- G. The Commission has reviewed the proposed detailed methodology of semi-annual reporting and comments made by Commission staff and BCPSO and finds that the methodology should be approved subject to the amendments contained herein.

NOW THEREFORE pursuant to the *Utilities Commission Act* the British Columbia Utilities Commission (Commission) approves British Columbia Hydro and Power Authority's (BC Hydro) April 30, 2014 proposed detailed methodology of semi-annual reporting, subject to the certain additional requirements outlined below and described in detail in the reasons attached as appendix A to this order:

1. BC Hydro must report against the Certificate of Public Convenience and Necessity baseline schedule in-service date for total project completion, November 2018, and the Design-Bid-Finance-Rehabilitate P50 Expected Amount, \$940 million, in the Project Status Dashboard.
2. BC Hydro must report information on material safety and environmental incidents of the Project Company and BC Hydro.
3. BC Hydro must report information on all Project risks that could cause an impact to the Project of \$3 million or more, and shall quantify risk information used in leading to specific decisions or actions.

DATED at the City of Vancouver, in the Province of British Columbia, this 6th day of June 2014.

BY ORDER

Original signed by:

D.M. Morton
Commissioner

Attachment

British Columbia Hydro and Power Authority
John Hart Generating Station Replacement Project Update
Regarding Methodology of Semi-annual Reporting

REASONS FOR DECISION

1.0 BACKGROUND

On February 8, 2013, the British Columbia Utilities Commission (Commission) issued Order C-2-13 granting British Columbia Hydro and Power Authority (BC Hydro) a Certificate of Public Convenience and Necessity (CPCN) for the John Hart Generating Station Replacement Project (the Project). Directive 5 in the Order provided for BC Hydro hosting a workshop to develop a detailed methodology of semi-annual reporting and submitting the detailed reporting methodology to the Commission for approval.

On March 25, 2014, BC Hydro hosted a Project reporting workshop to review and obtain feedback on BC Hydro's reporting methodology proposal. BC Hydro invited all Project CPCN proceeding Interveners to the workshop. The workshop was attended by Commission staff and one intervener.

On April 8, 2014, BC Hydro circulated a draft of its proposed Project report methodology to all Project CPCN Interveners for comment. Comments were received on April 14, 2014 from Commission staff and British Columbia Pensioners' and Seniors' Organization (BCPSO). On April 30, 2014, BC Hydro submitted its proposed detailed reporting methodology including its responses to comments submitted by Commission staff and BCPSO on the draft Project reporting methodology.

2.0 ISSUES AND DECISIONS

2.1 Reporting against the CPCN Baseline Schedule

In response to BC Hydro's draft proposal for its semi-annual project reporting methodology, Commission staff requested BC Hydro to include in the Project Status Dashboard the number of weeks the project completion in-service date is ahead of or behind the original CPCN baseline schedule project completion in-service date (November 2018). (BC Hydro John Hart Semi-annual Reporting Methodology Submission, April 30, 2014, Attachment B-1, p. 2)

On page 1 of Attachment B-2 of BC Hydro's submission, BC Hydro provided the following comments back to Commission staff regarding staff's request to report against the CPCN baseline schedule:

- "Original CPCN baseline schedule was from the Reference Case design via a Design Bid Build delivery model
- With BCUC approval of the DBFR procurement approach, the CPCN baseline schedule is not a meaningful comparator
- Information is of limited value and redundant for all future semi-annual reports
- Updated Project schedule from executed Project Agreement provided in first Project semi-annual progress report

- Internally, BC Hydro management reports on the schedule set out in the Project Agreement approved by the Board for Project funding and implementation
- BC Hydro will report against the contracted ISDs as set out in the Project Agreement” (BC Hydro Submission, April 30, 2014, Attachment B-2, p. 1)

Also, in BC Hydro’s proposed semi-annual progress report methodology submission, BC Hydro explains that they will report the “[n]umber of weeks the forecast in service date is ahead of or behind the contracted Project In-Service Date (ISD) (August 2019)” in the Project Status Dashboard.

Based on the Application, the evidence and the submissions presented on the Application, the Commission granted the CPCN having an in-service date for total project completion of November 2018 (Directive 2, Order C-2-13).

Commission Determination

Although the CPCN baseline schedule is not what BC Hydro management reports on to the BC Hydro Board, the Commission granted the CPCN having an in-service date for total project completion of November 2018 based on the Application, the evidence and the submissions presented in the Application. Therefore, the Commission is of the view that reporting against the CPCN baseline schedule in-service date for total project completion on an on-going basis provides Interveners and the Commission a better understanding of the Project’s actual schedule compared to what was approved. Reporting against the CPCN baseline schedule in-service date for total project completion in the Project Status Dashboard on an on-going basis is a more open and transparent reporting practice and may lead to improved schedule performance.

The Commission directs BC Hydro to continue reporting against November 2018. To do so, BC Hydro must report, in the Project Status Dashboard section of the semi-annual progress reports, the approved total project completion in-service date, November 2018, and the contracted project completion in-service date, August 2019, and the number of weeks the project completion in-service date is forecast to be ahead of or behind the approved total project completion in-service date and ahead of or behind the contracted project completion in-service date.

2.2 Reporting against the CPCN approval amount

In response to BC Hydro’s draft proposal for its semi-annual project reporting methodology, BCPSO provided the following comments:

“1) We would like to see cost-performance reporting continue against the Commission – approved \$940M DBFR P50 CPCN cost estimate as well as the \$1,050M procurement result (i.e. in a separate column). Although [BC] Hydro has suggested reporting against the \$940M would be artificial, in our view, it allows for a better understanding of the project’s actual cost relative to what was initially approved. Further, as BC Hydro has acknowledged, \$940M is the number BC Hydro will have to defend against in any prudence review.” (BC Hydro Submission, April 30, 2014, Attachment B-1, p. 8)

In Attachment B-2 of BC Hydro’s submission, BC Hydro provided the following comments:

- “\$940 million was the capital cost target developed for DBFR Request for Proposals (RFP) – not approved budget funding from BC Hydro Board.
- During the CPCN Review process, BC Hydro stated that if no proposals are received which are equal to or less than the Affordability Ceiling then BC Hydro management will evaluate and return to the Board for direction.
- The results of the RFP were reported in the first Project semi-annual progress report along with the options considered by BC Hydro management and the decision made by the Board.
- Reporting against the \$940 million is not meaningful and is redundant.” (BC Hydro Submission, April 30, 2014, Attachment B-2, p. 1)

In BC Hydro’s proposed semi-annual progress report methodology submission, BC Hydro explains that they will report the “\$ amount expected to be spent above the Board approved P50 cost amount (\$1,050 million)” in the Project Status Dashboard.

Based on the Application, the evidence and the submissions presented on the Application, the Commission granted the CPCN for a maximum amount of \$940 million based on the Design-Bid-Finance-Rehabilitate P50 Expected Amount (Directive 2, Order C-2-13). The Commission specifically directed:

“BC Hydro shall not obtain a recovery through rates of any cost overrun exceeding \$940 million until the Commission determines whether those costs have been incurred prudently or, alternatively, determines that a prudency review could be waived because that waiver is in the public interest and is otherwise in accordance with the Utilities Commission Act” (Directive 3, Order C-2-13).

Commission Determination

Although \$940 million is not the approved funding from the BC Hydro Board, the Commission granted the CPCN for a maximum amount of \$940 million based on the Application, the evidence and the submissions presented on the Application. Therefore, the Commission is of the view that reporting against \$940 million provides Interveners and the Commission a better understanding of the Project’s actual cost relative to what was approved. The Commission is also of the view that on-going reporting against the Design-Bid-Finance-Rehabilitate P50 Expected Amount of \$940 million is a more open and transparent reporting practice, and may lead to improved cost performance.

The Commission directs BC Hydro to continue to report against the \$940 million in the semi-annual progress reports. To do so, the Commission directs BC Hydro to report in the Project Status Dashboard the CPCN approval amount, \$940 million, the Target ISD Capital Amount, \$1,050 million, and the dollar amounts forecast to be spent above or below the CPCN approval amount and above or below the Target ISD Capital Amount.

2.3 Reporting Environmental Performance

Considering certain environmental incidents may lead to material impacts to project cost and schedule, on page 2 of Attachment B-1, Commission staff requested BC Hydro to report in the Project Status Dashboard “The number of environmental incidents at each severity level (results of Project Company and BC Hydro both to be provided) in the reporting period and cumulative.” (BC Hydro Submission, April 30, 2014, Attachment B-1, p. 1)

In Attachment B-2 of BC Hydro's submission, BC Hydro provided the following response to Commission staff's request:

- Project will have a minimal impact on the environment.
- BC Hydro ancillary work (e.g., site preparation, trails relocation, access roads improvements) completed without material incidents / infractions.
- Information requested (detailed tracking and reporting incidents/violations) is not consistent (detailed reporting on incidents) with current and past BC Hydro capital project status reports to BCUC.
- Material environmental non-performance issues will be discussed in section 1.3 "Key Project Agreement Development, Challenges and Issues."

(BC Hydro Submission, April 30, 2014, Attachment B-2, p. 2)

Commission Determination

Although the information requested may not be consistent with current and past BC Hydro capital project status reports to the Commission, the Commission is of the view that reporting information on material environmental incidents of both the Project Company and of BC Hydro provides quantification of BC Hydro's reported environmental status and provides Interveners and the Commission an improved understanding of the Project's environmental performance and project risks. Material environmental incidents are considered incidents that require reporting to the Department of Fisheries and Oceans and/or the Ministry of Environment as incidents at this level have the potential to materially impact project costs and schedule.

The Commission directs BC Hydro to report information on material environmental incidents of both the Project Company and of BC Hydro in the semi-annual progress reports. BC Hydro can report the information under section 1.3 "Key Project developments, Challenges and Issues."

2.4 Reporting Safety Performance

Considering certain safety issues may lead to material impacts to project cost and schedule, on page 1 of Attachment B-1, Commission staff requested BC Hydro to report in the Project Status Dashboard "The number and severity of near misses and lost-time incidents/injuries, the number of the lost-time worker days and the number of WorkSafeBC Orders (results of Project Company and BC Hydro)." (BC Hydro Submission, April 30, 2014, Attachment B-1, p. 1)

In Attachment B-2 of BC Hydro's submission, BC Hydro provides the following response to Commission staff's request:

- "Material issues will be reported under section 1.3 "Key Project developments, Challenges and Issues"
- BC Hydro ancillary site work completed before main construction work to commence in summer 2014

- Detailed information items requested are not consistent with current and past BC Hydro capital project status reports to BCUC.” (BC Hydro Submission, April 30, 2014, Attachment B-2, p. 1)

Commission Determination

Although the detailed information items requested may not be consistent with current and past BC Hydro capital project status reports to the Commission, the Commission is of the view that reporting information on material safety incidents of both the Project Company and BC Hydro provides quantification of BC Hydro’s reported safety status and provides Interveners and the Commission an improved understanding of the Project’s safety performance and project risks. Material safety incidents are considered incidents that require reporting to WorkSafeBC as incidents at this level have the potential to materially impact project costs and schedule.

The Commission directs BC Hydro to report information on material safety incidents of both the Project Company and BC Hydro in the semi-annual progress reports. BC Hydro can report the information under section 1.3 “Key Project developments, Challenges and Issues.

2.5 Reporting Risks

In response to BC Hydro’s draft proposal for its semi-annual project reporting methodology, BCPSO provided the following comments:

“2) We do not see any particular problem with the \$3M materiality threshold, given the overall cost of the project. With that said, we are unclear on the basis for this figure, and would appreciate clarification on how the \$3M threshold was chosen (i.e. as opposed to \$1M, \$2M or \$5M).

3) We would like Material Project Risks set out in Table 6 to be quantified in dollar amounts, as well as their mitigation costs. It is unclear whether this is anticipated by the “Description of Residual Probability and Estimated Impact” column; however, we would prefer to see it as a separate column for clarity. If this is already anticipated, we would appreciate clarification as to how risk will be reported in Table 6 in this section (i.e. is cost impact multiplied by probability of occurrence, with that figure compared to the \$3M threshold?).” (BC Hydro Submission, April 30, 2014, Attachment B-1, p. 8)

Commission staff provided similar comments:

“Commission staff considers that the materiality threshold of \$3 million BC Hydro refers to equates to the cost if the risk event occurred multiplied by the probability of that event occurring, or the cost of the control and mitigation strategy.” (BC Hydro Submission, April 30, 2014, Attachment B-1, p. 7)

Commission staff also requested Table 6 to be updated with cost estimates if the risk event were to occur, the probability of the risk event occurring, and the costs of the control and mitigation strategy (or the cost estimate range). (BC Hydro Submission, April 30, 2014, Attachment B-1, p. 7)

BC Hydro provided the following responses to Commission staff and BCPSO's comments:

"The materiality threshold selected by BC Hydro is based on previous threshold set for reporting single contract > \$3 million." (BC Hydro Submission, April 30, 2014, Attachment B-1, p. 7)

- "Probability assessment is subjective. Any material risk or change in risk assessment will be reflected in section 5, Material Project Risks.
- Consequences (impact to schedule, cost) are extremely difficult to quantify, outcome will likely dependent on future events and decisions
- Cost information to implement mitigation plan or measures is not tracked (i.e., by task or specific deliverable) in the financial systems
- For each reportable risk item (identified or active), to provide insights and proper context, BC Hydro would need to disclose among other things, assumptions and qualifications. Certain information may be commercially sensitive (i.e., estimate on cost to settle claims).
- Information requested (probability assessment and financial impact) is not consistent with current and past BC Hydro capital project status reports to BCUC and internal BC Hydro reporting BC Hydro Risk Identification and Assessment Methodology
- BC Hydro characterized Project risks under various categories or "buckets". Contingency budget established to manage these risks. Please refer to the Appendix B-3 (first report) on Project Contingencies and Reserve.
- For each risk category, there are a number of potential risk events. Each risk event can be further mapped to potential causes. There are no probability percentage and cost estimates assigned to potential causes." (BC Hydro Submission, April 30, 2014, Attachment B-2, pp. 2-3)

In BC Hydro's proposed semi-annual reporting methodology, BC Hydro also writes:

"As with other semi-annual progress reports, Table 6 would set out the summary of material risks that may impact the implementation of the Project, together with descriptions of: the control and mitigation plan; residual probability and estimated impact; and status (treated or identified). BC Hydro proposes a materiality threshold of \$3 million.

Material Risk Event Description - Categories to be used would be drawn from the CPCN Application, Table 6-4, relevant Implementation phase risks, e.g., Project cost overruns resulting from change orders or supervening events, geotechnical risk, public safety. BC Hydro proposes to use a threshold of \$3 million for materiality." (BC Hydro Submission, April 30, 2014, p. 10)

Commission Determination

Using a minimum contract value as a threshold for reporting risk is not appropriate. For example, if BC Hydro chooses to do the mitigation activities themselves, there would be no contract resulting in no requirement to report. Also, limiting risk categories to the categories in Table 6-4 of the CPCN application may limit BC Hydro's requirement to report risks which do not meet these categories. The Commission does not agree with limiting reporting only to risks which have previously been identified.

Accordingly, BC Hydro must report to the Commission not only what risks have occurred or the costs to mitigate those risks, but **all** material risk events that could occur and what the mitigation costs would be. These risks may not previously have been identified or may have been previously identified, but have significantly changed. For these risks, it is important for BC Hydro to report the probability of those risk events occurring, the possible consequences if those risk events occurred, and the cost of a potential mitigation strategy. In some cases, the mitigation strategy may require BC Hydro to establish a contingency budget.

Although the materiality threshold of \$3 million should be equated to the cost if the risk event occurred multiplied by the probability of that event occurring, or the cost of the control and mitigation strategy, the Commission understands the difficulty BC Hydro could have in developing detailed quantification. However, ballpark estimates could be reasonably obtained. In the end, it is important for BC Hydro to report on all project risks that could cause an impact to the Project of \$3 million or more and to report all meaningful information related to project risks including quantification used in leading to specific decisions. The risk information needs to be quantified to provide Interveners and the Commission with an understanding of the risk and how or why a specific action or decision was taken or is to be taken. As long as the above information is discussed in section 5, Material Project Risks, there is no need to include it in Table 6.

Therefore, the Commission directs BC Hydro to report on all project risks that could cause an impact to the Project of \$3 million or more. Further, the Commission directs BC Hydro to report all meaningful information related to project risks including quantification used in leading to specific decisions in the semi-annual progress reports. BC Hydro shall quantify risk information such that Interveners or the Commission can understand the risk and to inform how or why a specific action or decision was taken or is to be taken in the future.