

REQUESTOR NAME: Joint Industry Electricity Steering Committee (JIESC)
INFORMATION REQUEST ROUND NO: 3
TO: BRITISH COLUMBIA HYDRO & POWER AUTHORITY
DATE: September 11, 2008
PROJECT NO: 3698514
APPLICATION NAME: BCH – 2008 LTAP

BC HYDRO – 2008 LTAP
EXHIBIT C20-4

26.0 TOPIC: Demand Side Management (DSM)

Reference: Exhibit B-10, Page 19-25;

Explanation: *In 2008, the Federal Government enacted the federal regulations with effective dates in 2012, depending on lamp sizes. Also, in 2008, the B.C. Government formally announced a regulation with effective dates in 2011 and 2012, again depending on lamp sizes. Given this new information, BC Hydro is of the view that it is reasonable to expect the savings to come online three years sooner, starting in F2013. This change is estimated to deliver an extra 480 GWh of energy savings in F2017.*

..., BC Hydro will continue to implement the same DSM initiatives but will reduce its expectation of the savings that will result. Even with the same level of expenditures and a reduced level of expected savings, DSM remains cost-effective relative to new supply-side resources. ... higher expenditures in early years are offset by lower expenditures in later years;

The risk of over-collection of DSM expenditures through rates, which would occur if actual DSM expenditures are less than forecast DSM expenditures, is limited to 10 per cent in year two, at which point rates are reset based on a new forecast of DSM expenditures which takes into account actual DSM expenditures;

BC Hydro anticipates it would have to spend more per unit to achieve incremental savings. BC Hydro is compensating for this by leaving the three-year DSM expenditure determination request as is, even though expected savings have decreased.

If BC Hydro reduces its DSM expenditure, it will be at increased risk of not meeting the self sufficiency requirement by 2016. The possibility that DSM savings would come in under the forecast level would be higher and, once such shortfall was recognized, there would likely not be time to recover through standard acquisition processes. This would likely result in BC Hydro relying on the Canadian Entitlement (CE) and other market contingency options, something that is contrary to Special Direction No. 10 to the BCUC;

Request:

- 26.1 Provide the level of expenditures, with the supporting analysis, that is proportionate to the expected savings in the Evidentiary Update and adjusted for the change in energy demand due to the change in effective dates for regulations.
- 26.2 Why has BC Hydro not proposed applying excess recoveries of DSM costs against recoveries in future years?

**27.0 TOPIC: Electricity Load Forecast
Special Direction 10**

Reference: Exhibit B-10, Page 4, Page 33;

Explanation: *The 2008 Load Forecast Update includes an economic forecast which incorporates quarterly projections provided by the Conference Board of Canada in late October 2008, such as Gross Domestic Product (GDP), employment and retail sales.*

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BC Hydro's customers get the full benefit of the Heritage Assets, subject to the \$200 million cap on Trade Income.

To manage the net short term energy deficit of 200 GWh/year and 500/GWh/year in F2013 and F2014 respectively, BC Hydro plans to undertake [the following] actions:

Request:

- 27.1 Provide updated economic forecast and discuss the effect of changes on the load forecasts and supply plan. If updated forecasts are not available at the time the IR responses are filed, provide the updates and discussion when they become available.
- 27.2 Discuss the materiality and supply risk associated with the forecast energy deficit.
- 27.3 Confirm that the energy deficit is subject to water inflows, i.e. Critical Water.
- 27.4 Confirm that the energy shortfall is equivalent to 23 MW and 46 MW of capacity, respectively.
- 27.5 Confirm that BC Hydro would under average water conditions have an energy surplus.
- 27.6 Confirm that BC Hydro customers will not benefit from the sale of energy surpluses in excess to \$200 million.
- 27.7 Provide the estimated cost of surplus incremental energy purchases [at the IPP purchase prices] under normal and high water inflow conditions.

28.0 TOPIC: Fort Nelson

Reference: Exhibit B-10, Page 7; Exhibit B-10, Attachment 3; Exhibit B-10, Attachment 3, Page 7, Figure 3;

Explanation: *... the third portion of Part 2 (section 2.8) consists of a new load/resource balance for the Fort Nelson region and describes additional developments related to Fort Nelson.*

The potential exists for significant electric load growth in the greater Ft. Nelson Horn River Basin (HRB) area within the range of 100-350 Megawatts (MW) by the year 2020. This is due to the development

potential of the Horn River Basin Shale Gas. The gas production “best guess” forecast from the Horn River Basin play is anticipated to be approximately 2.7 Bcf/d (billion cubic feet / day) by 2020.

The electrification of HRB field compression and Carbon Capture and Sequestration (CCS) compression at the Cabin Plant and area processing plants are major opportunities to abate GHG emissions. The potential exists to reduce cumulative emissions of some 100 Megatonnes via electrification and CCS from this play by the year 2030. The range of electric load potential of ~ 100 – 350 MW exists based principally on the timing of electrification.

Request:

- 28.1 Confirm that oil & gas customers in the Fort Nelson area and in general are included in Industrial load forecasts.
- 28.2 What is the expected capacity (load) factor for the incremental Fort Nelson load?
- 28.3 Confirm that CAPP will not be the customer and that CAPP does not bear any of the forecast and facilities risk.
- 28.4 Confirm that development of the Horn River Basin is not dependent upon BC Hydro providing electricity supply for compression and CCS.
- 28.5 Confirm that the Fort Nelson facilities will be isolated from the BC Hydro integrated system and will be stranded if the load to be served does not materialize or is not sustained.
- 28.6 Outline how CIAC will be determined and set out who will pay the contributions.
- 28.7 Will BC Hydro collect GHG offsets from the oil and gas customers who electrify facilities in order to abate GHG emissions?
- 28.8 Will BC Hydro require a long term Take or Pay contract with oil & gas companies in addition to contributions?
- 28.9 What are the estimated transmission and distribution facility costs in addition to the generation facility costs set out in the Application as updated?

29.0 TOPIC: Clean Power Call

Reference: Exhibit B-10, Page 2; Exhibit B-1, Page 1-3;

Explanation: *Section 2.6 explains the rationale for BC Hydro’s request for an amendment to the Order sought to reduce the Clean Power Call pre-attrition target to 3,000 GWh/year. This section also describes the reasons why BC Hydro is of the view that a reduction to a pre-attrition target of 3,000 GWh/year will not impact the competitive nature of the Clean Power Call RFP process. Finally, as described in section 2.6, BC Hydro proposes to use an attrition allowance of 30 per cent for the Clean Power Call, with the result that the post-attrition volume of the Clean Power Call for planning purposes is 2,100 GWh/year;*

If BC Hydro reduces its DSM expenditure, it will be at increased risk of not meeting the self sufficiency requirement by 2016. The possibility that DSM savings would come in under the forecast level would be higher and, once such shortfall was recognized, there would likely not be time to recover through standard acquisition processes. This would likely result in BC Hydro relying on the Canadian Entitlement (CE) and other market contingency options, something that is contrary to Special Direction No. 10 to the BCUC;

Certain parties are urging BC Hydro and the government to continue with the acquisition of green energy. The results of the Vancouver Sun Online Poll on Thursday on the question; "Should the provincial government intervene and direct BC Hydro to ramp up green energy production?" was 95.5% in favour, from "several hundred replies".

Request:

- 29.1 What would be the changes to the DSM programs and DSM costs/expenditures if the full Clean Power Call of 5,000 GWh (3,500 GWh net of attrition) were to proceed?
- 29.2 What would be the estimated unit and total annual costs of additional IPP energy supplies if the additional 1,400 GWh (3,500-2,100) was acquired?
- 29.3 What are the estimated transmission and generation facility costs required to support an additional 1,400 GWh of IPP supply?
- 29.4 What would be the unit and total annual costs of acquiring the equivalent DSM energy savings of 1,400 GWh?