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December 10, 2018

VIA ELECTRONIC MAIL

British Columbia Utilities Commission
Sixth Floor, 900 Howe Street
Vancouver, BC
V6Z 2N3

Attention: Patrick Wruck, Commission Secretary

Dear Sirs/Mesdames:

**Re: British Columbia Hydro and Power Authority Review of the Regulatory Oversight
of Capital Expenditures and Projects ~ Project 3698877**

We are counsel for the Commercial Energy Consumers Association of British Columbia (the "CEC") in this matter.

Enclosed please find the Information Request Responses in response to the Information Requests of the British Columbia Utilities Commission Staff – Exhibit A-24.

Yours truly,

OWEN BIRD LAW CORPORATION



Christopher P. Weafer
CPW/jj
cc: CEC
cc: BC Hydro
cc: Interveners

**COMMERCIAL ENERGY CONSUMERS
ASSOCIATION OF BRITISH COLUMBIA**

**Responses to Clean Energy Association of British Columbia on
Information Requests on Evidence**

Prepared by Mr. David W. Craig

**British Columbia Hydro and Power Authority Review of the Regulatory Oversight
of Capital Expenditures and Projects – Project No. 3698877**

December 10, 2018

**COMMERCIAL ENERGY CONSUMERS ASSOCIATION
OF BRITISH COLUMBIA**

**Responses to Clean Energy Association of British Columbia to Information
Requests on Evidence**

**British Columbia Hydro and Power Authority Review of the Regulatory Oversight
of Capital Expenditures and Projects – Project No. 3698877**

December 10, 2018

5.0 Reference: Exhibit C3-10, CEC Evidence by David W. Craig

Paragraph 2 indicates that CEC “submits that the role of the BCUC with respect to capital expenditures... is to ensure that they are cost-effectively deployed and provide full value for ratepayers.”

Paragraph 11 asserts that cost-effectiveness is the defining principle for the Commissions oversight of BC Hydro’s capital expenditures, and that, “Both cost-effectiveness evaluation and continuous improvement are well-understood business practices...”

5.1 Since CEC asserts that cost-effectiveness is a “well understood business practice,” can CEC please provide a succinct definition of exactly what cost-effectiveness means with respect to capital projects in each of the following 7 categories of BC Hydro’s Generation capital spending:

1. Generation capital – Growth/Supply;
2. Generation capital – Life Extension;
3. Generation capital – Reliability Performance/Sustainment Management;
4. Generation capital – Natural Risk Exposure Management;
5. Generation capital – Security risk Exposure Management;
6. Generation capital – Stakeholder Concern Management; and
7. Generation capital – Surplus Capability Value.

ANSWER

Growth Supply

The cost effectiveness of a given option for providing supply to meet customer demand has been measured as the cost divided by the benefit of the GWh of supply provided. This can be compared for any given strategy or option to that of other options. To deliver power to customers, BC Hydro also needs to have the capacity available to generate the power at the time it is needed and needs to have the energy available from which to generate the power. These capacities have been typically measured as the cost for a kW-year of capacity. This can then also be used to make comparisons between strategies for making sure this is available as well as against the different strategy options for providing the power.

BC Hydro can use such measures to determine if it is suitable to acquire supply or to buy supply from IPPs or renew IPP supply contracts. The same measures can be used to determine if demand side management measures for reduction of demand are more appropriate than supply. Demand side measures related to investment in codes and standards are particularly cost-effective in these comparisons.

Supply options being brought into service in periods of surplus supply have different levels of cost-effectiveness than those being brought into service to meet existing demand or to fill potential deficits.

The Commission's oversight information has access to such information. There are strategies for managing supply and demand and capital expenditures plans, which inherently are part of the information available to the Commission for its approval processes. The Commission may review and make determinations on the appropriateness of various expenditures.

Life Extension

BC Hydro has a goal of maximizing the lifecycle value of its generation investments. Commission oversight information for examining the cost-effectiveness of such expenditures that add to lifecycle value would be valuable in assessing how well BC Hydro is doing in meeting this goal.

Typically, BC Hydro knows the in-service dates and ages for its generation equipment and has means of assessing the condition of the components of its generation equipment and systems. Also, investments in generation equipment have expected lives for the equipment, though of course the actual life of equipment will not be known until it has been taken out of service for a particular reason.

Where capital expenditures and investments can be made to extend the service life of the generation equipment over what may otherwise be an expected life, the cost of the expenditure can be divided into the expected life extension and the cost-effectiveness of the related strategy for extending the life of the equipment can be assessed relative to other options and alternatives for maximizing the lifecycle value of the equipment.

Understanding the modes of failure for equipment and the ways in which condition can be assessed can lead to prediction for the mean time to potential failures and assessment of the costs of various forms of failure. This information can lead to strategies for when to make capital expenditure investments as well as how and what kind of investments to make.

Standards for capital maintenance may be developed and applied to determining capital expenditure plans. These standards can be one form of strategy and other strategies may be developed or borrowed from other parties experience.

The Commission's oversight information to understand this aspect of the business can assist the Commission in its approval roles to understand the cost-effectiveness of BC Hydro's management of capital expenditures aimed at maintaining and potentially extending the life of the equipment.

Reliability Performance/Sustainment Management

BC Hydro has an objective for delivering its electricity to customers reliably. This reliability performance can be and is measured with some industry-wide forced outage measures, customer interruption frequency, and duration of outages.

Where capital expenditures can be made with respect to the electric system to improve its reliability performance, these can be assessed for their cost-effectiveness based on the cost of the measure taken divided into the incremental change in the rate and duration of reliability disruptions.

In this way the cost-effectiveness of alternative options for improvement can be assessed and the historical record of performance and the costs to maintain or improve the performance can be assessed.

Natural Risk Exposure Management

The electrical utility business is exposed to certain natural risks for which the utility must manage the impacts of the potential realization of the risk, the costs of initiatives to reduce the risk and the costs to mitigate the risk impacts if realized.

There is almost always, in regard to natural risks, some uncertainty about the probability of the risk being realized, the potential impacts of risks being realized on people, property economic values and or environmental values and the potential value of mitigation efforts to reduce a future possible impact.

Nevertheless, almost all of the risks having importance to the management of the utility have some form of historical record of reoccurring realization of a risk, which record can be used to assess the probability of the risk occurring. The strategies available to reduce the potential for one of these risks being realized may lead to capital expenditures to reduce the probability of the risk. Equally the strategies for mitigating the impact of a risk should it be realized may lead to expenditures to reduce the impacts of a realized risk.

The changes in the probability of risk being realized divided by the cost of any capital expenditure or investment made to achieve the reduction can lead to measurement of cost-effectiveness of risk reduction measures.

Commission oversight information about and understanding of the cost-effectiveness of risk management capital expenditure can potentially be improved and can be part of the staged improvement process the Commission will have the opportunity to adopt.

Security Risk Exposure Management

The security risk management related to BC Hydro physical assets, information assets and controls can be analyzed in a similar fashion to all other risk management.

For every risk identified there will be a probability that the risk may be realized. There will be prospective estimates with respect to the degree to which the probability may be increasing, stable or decreasing. These risks may come from accidental human sources or from intentional human sources.

The realization of a risk would then be expected to have consequences potentially to people, property assets economic values, and/or environmental values.

It will ultimately be possible for capital expenditures and investments to have an impact on reducing the probability of a risk being realized and on the potential for mitigation efforts to reduce the consequences of an impact.

The cost-effectiveness of security risk management strategies requiring capital expenditures and investments can then be evaluated by dividing the cost into the measures for the related change in the risk probability and or the impact mitigation potential.

The Commission's oversight information can be improved by obtaining cost-effectiveness information on security strategy initiatives and on potential alternative options. Quantitative communication about this subject is importantly an effective way to make assessments.

Stakeholder Concern Management

Stakeholder concerns are more likely than other concerns to be managed to a particular standard level of public interest value, in that the utility would likely not be held responsible for taking on the entire responsibility for public interests, particularly to the extent they are beyond the range of potential utility causation.

Stakeholder concerns are certainly possible to measure and use those measures quantitatively to partially understand the public interest issues. Some of the stakeholder concern issues may be managed with capital expenditures or investments to effect some change in the public interest.

The cost effectiveness of strategies aimed a dealing with the stakeholder concern values can be evaluated by dividing the change in the public interest values, related to the capital expenditures and investments made to deal with stakeholder concerns, by the costs of the capital expenditures and investments so made.

These measures can then inform evaluation of alternative options, assessment of the performance history and future plans based on progressive improvement, and/or the appropriateness of a defined standard that may be selected as the policy response of the utility.

The Commission's oversight information can be improved by obtaining the cost-effectiveness metric information with regard to these potential public interest concerns and lead to more effective communication about these issues and more effective decision making by the Commission in its decision-making approval roles.

Surplus Capability Value

At this time, BC Hydro has significant surplus energy available over and above the needs for meeting the demands of its customers for a considerable time into the future.

Strategies for improving the values that ratepayers receive for these surpluses may involve capital expenditures and investments.

The cost-effectiveness of such strategies can be defined by dividing the degree of change in the values of the surpluses currently being obtained by the costs of making the change. The value changes will be made up out of the GWh's or MW's to which the strategy applies and the prices obtained for the energy and or capacity.

The Commission's oversight information on this subject, just like its information on the demand side management expenditures, can be usefully improved if there is a quantitative understanding developed and applied to alternative options and performance progress.

5.2 Considering the other categories of BC Hydro capital spending, such as Transmission and Distribution capital, Properties capital, Fleets capital, or IT and Telecommunications capital, are the definitions of cost-effectiveness exactly the same for the other categories as for the Generation category? Please provide details wherever the definition of cost-effectiveness is different from the definitions for Generation capital given above, and an explanation of why that difference is necessary.

ANSWER

Yes. The objective of assessing cost-effectiveness is to identify a particular benefit of the capital expenditure and investment, determine the appropriate measure for understanding the benefit, identify the costs related to achieving that benefit and be in a position to calculate the cost for the unit of benefit delivered.

This approach is common throughout all of the CEC's preliminary identification of methodology for examining cost-effectiveness, regardless of the group with particular types of capital investments and expenditures to manage. Of course, details vary with type but the fundamental principle of analysis remains the same.

5.3 Do any of the definitions of cost-effectiveness given in 5.1 or 5.2 incorporate a forecast of revenues from the potential capital projects, for comparison with other competing capital investments? Please describe which ones include revenue forecasts, how those revenues

are determined, and how those revenues are incorporated into the cost-effectiveness definitions.

ANSWER

Yes, both the 5.1 and 5.2 question subject measures include the need to forecast revenues for all costs.

In all cases where there is a cost which will affect ratepayers and therefore has a utility ratepayer impact it is important to assess the value of the benefits being delivered in relation to the costs.

For instance, the addition of costs, which are not part of a customer demand and paid for by customer, will put additional pressure on increasing rates to future ratepayers.

The assessment of cost-effectiveness should examine impacts as well as benefits. For instance, the assessment of reliability assesses the impact of system outages, whether they are planned or unplanned. These impacts affect the quality of service that ratepayers experience and are an important part of the cost-effectiveness of capital expenditures to serve ratepayers.

Ratepayer impacts of rate increases have impacts on demand. However, the rate increase impacts are only one element of an assessment. Bill impacts are as critical as rate increases. This makes strategies for efficiency and conservation for customers a vital element for cost-effectiveness assessment. Demand destruction is a potential impact of capital expenditures and investments when they are not adequately recovered from domestic rates.

Equally, it is important to assess whether domestic customer revenue will be received for a capital expenditure delivering energy and or capacity to the system. If the revenues are not from domestic customers then typically the energy and capacity will end up being surplus to BC Hydro customer demand and need to be sold into electricity markets. BC Hydro's domestic customer revenues are on average considerably higher than the electricity market revenues. Hence the duration of periods of surplus are important to assessment of future rate impacts.

It is this point that has led the CEC to include in the generation cost-effectiveness evaluations the management of surplus energy and capacity and the cost-effectiveness of various strategies and capital expenditures that may be options for dealing with surplus.

The question of where this issue would be included would be in the public interest concerns for ratepayer impacts of capital expenditure driven rate increases not recovered in rates. Also, the surplus management would have consideration of the revenues. Finally, all alternatives which can improve revenue for the utility versus costs will have a cost-effectiveness measure return to ratepayers.

5.4 Has CEC considered that BC Hydro may also have other objectives for its capital expenditures, besides pure cost-effectiveness, such as the government's instruction to pursue electrification as a means to reduce greenhouse gases, or to use the electricity system to facilitate industrial development, or First Nations development around the province? How does CEC recommend balancing the competing priorities if some of these

other objectives are less cost effective? How do CEC's suggested templates accommodate such competing priorities?

ANSWER

The CEC does not recognize a 'pure cost-effectiveness' measure but assumes that the question is referring to a financial cost benefit valuation where typically only the financial benefits are incorporated into the assessment. The CEC is not proposing that this is a definition of cost-effectiveness but recognizes it as one type.

The Commission has the over-arching test of cost-effectiveness for proposed capital expenditures and projects when assessing whether or not to approve them or allow recovery of costs from ratepayers.

This test typically incorporates the full range of potential impacts and objectives or benefits for which the capital expenditure may be made.

For instance, the objective of reducing greenhouse gases is a public interest stakeholder issue for which the measurement of benefits is typically done using CO₂e tonnes of emissions. Capital expenditures used to achieve this objective could be evaluated as a cost per tonne of CO₂e emissions. The cost effectiveness of measures to achieve this would be evaluated against other potential options and strategies for achieving the same ends.

Such public interest stakeholder concerns as industrial development and First Nations development are also amenable to evaluation as to their cost-effectiveness.

The CEC believes that as the Commission's oversight information in regard to various issues of this nature improves the Commission's approval roles.

The CEC does not expect that quantified evaluations have single solution definitive answers, but that having such information improves the potential judgments required.

The question makes the excellent point about the need to balance priorities in making assessments. This is in fact the primary reason for examining costs in the context of the benefits or impacts and particularly within the context of the measurement best applicable to the benefit or impact. Where the Commission's oversight information is more typically lists of projects with their costs it would be more difficult for the Commission to understand what the important cost-effectiveness relationship are.

Competing priorities involved in assessing capital expenditures can involve assessing the positive cost to benefits and the negative cost to impacts. The ultimate cost-effectiveness is then a balance of these. The balance assessment may be a judgement the Commission oversight information may apply or could involve further offsetting computational assessment to better understand the weighting that the Commission may want to apply.

Where there are competing priorities such as public interest considerations versus the cost to ratepayers of certain benefits, the CEC recommends that the Commission's oversight information can utilize a combination of quantitative weighting assessment where it may help

illuminate issues and judgement to assess the value of those priorities and weigh them into a comprehensive cost-effectiveness assessment.

The CEC's templates focus on providing the Commission a starting framework for a discussion with BC Hydro as to how BC Hydro determines what is cost-effective in its capital plans and eventually determining what the Commission will want to use for its own foundation for understanding the cost-effectiveness assessment of capital expenditures.

6.0 Reference: Exhibit C3-10, CEC Evidence by David W. Craig

In paragraphs 24 and 25, CEC asserts that BC Hydro should “avoid planning for capital... prior to need or customer demand...” and that “ratepayers have been disadvantaged through early acquisition of capital...”

6.1 Does CEC acknowledge that BC Hydro might have occasions where it should build new generation or transmission in order to encourage or facilitate new loads? e.g. If BC Hydro is seeking to follow the Provincial Government's direction to encourage new industrial development or to electrify as a means to meet the province's GHG reduction goals.

ANSWER

The CEC acknowledges that BC Hydro may have occasions in which it is required to follow government directions.

The CEC is of the view that cost-effectiveness considerations should be weighed heavily by the Commission in its determinations.

6.2 Does CEC acknowledge that over the 20 years from 2008 to 2027, BC Hydro will have spent over \$50 billion on capital assets and that, of that amount, only the \$10.7 billion committed for Site C relied on the load forecast for its justification?

ANSWER

The CEC does not accept the assertion.

The CEC submits that the BC Hydro load and capacity requirements, which are founded on the load forecast, have resulted in many important capital expenditures over the last 20 years.

For instance, in the \$1.203 billion 2017 Waneta application (2018) BC Hydro states:

The Waneta 2017 Transaction builds on the benefits already realized through BC Hydro's acquisition of its one-third interest in Waneta in 2010. As a result of that transaction, BC Hydro receives approximately one-third of the Waneta generation which is used to meet BC Hydro's load-serving obligations. If the Waneta 2017 Transaction is approved, it will result in BC Hydro being the sole owner of Waneta with Teck retaining the benefit of its existing two-thirds interest (as a lessee) for the next 20 or 30 years. During the Lease Period, BC Hydro's access to the energy and capacity associated with its one-third interest will continue with the Waneta 2017

Transaction. As a result of the Lease, BC Hydro will see immediate financial benefits through Teck's lease payments which will have a net positive impact on the rates of BC Hydro's customers. Upon the expiration or termination of the Lease, BC Hydro will be the sole unencumbered owner of the Waneta Assets (together with its existing one-third interest) which will be available to serve domestic or export markets. At that time, BC Hydro will also be the sole beneficiary of the energy and capacity from Waneta and will additionally acquire the Transmission Assets so that Waneta is directly connected to the BC Hydro system. As a result, the Waneta 2017 Transaction will allow BC Hydro to mitigate rate pressures on its customers and secure an important source of clean generation at a low cost.¹

Furthermore, the load resource balance is used to provide context and other foundational assumptions in capital planning.

For instance, in the \$1.158 billion John Hart Generating Station Replacement Project BC Hydro concludes:

The post-Project John Hart Facility will provide long-term generation services for 50 years or more. As demonstrated in section 3.2.4, the Project is cost-effective under average water conditions where:

- (i) For five years period from the F2018 Project ISD to F2023, the 835 GWh/year of average energy is arbitrarily assumed for analysis purposes to be surplus to domestic need and sold into the spot market. For this period of time the average energy is valued at the short-term Scenario C 'BC sell price' spot market price of \$34/MWh;
- (ii) From F2023 and thereafter the average energy is required to meet domestic loads and therefore displaces energy that would otherwise be purchased from IPPs; for this period of time the average energy is valued at \$132/MWh²

BC Hydro's Project Justification for the 2011 \$857 million Ruskin Dam and Powerhouse Upgrade Project states:

'Need for the Ruskin Facility post-Project's firm energy and dependable capacity are based upon the LRBs, as set out in Table 3-1 and Table 3-2 under the following three scenarios...'³

And they state:

'To determine the need for the Ruskin Facility post-Project generating capability, energy and capacity LRBs are analyzed for the Integrated System. In Section 3.2.2.1,

¹ Exhibit B-1, BC Hydro 2017 Waneta Application page 1-9

² Exhibit B-1, BC Hydro John Hart Generating Station Replacement Project page 2-41

³ Exhibit B-1, BC Hydro Ruskin Dam and Powerhouse Upgrade Application page 3-15

the assumptions underlying the LRBs are reviewed, including the 2010 Load Forecast and the current Demand Side Management (DSM) target.’⁴

The CEC notes that to the extent that BC Hydro is assessing any resource smart projects the same load forecasting information is relevant.

BC Hydro’s load forecasting also forecasts capacity requirements and has been a part of assessing the buildout of capacity additions at Mica and Revelstoke.

6.3 Many of BC Hydro’s Transmission and Distribution projects are categorized as “Growth” projects, and yet they do not cite the load forecast in their justification. How does CEC propose to deal with this type of project? How will such a project’s cost-effectiveness be defined and measured?

ANSWER

When Transmission and Distribution capital expenditures are being planned and considered the forecasting of load and capacity delivery requirements are considered.

For instance, BC Hydro’s Dawson Creek – Chetwyn project involved both forecasts of load requirements in the area and the capacity requirements. Voltage stability is also an important issue for BC Hydro.

The CEC’s understanding is that when the capital expenditures for all of BC Hydro’s stations are made, the relevant information is related to the potential growth in requirements for power which the stations may be required to serve. The CEC understands that the local load and capacity requirements are monitored, tracked, and used for the purpose of planning the various expenditures which may be needed.

Commission oversight information and understanding of such capital expenditures and the alternative strategies available to BC Hydro is important to understanding the cost-effectiveness of the expenditures and investments.

The CEC believes that this information is available in BC Hydro and that Commission oversight information requirements can and should be able to access this as the Commission finds appropriate for its understanding of the utility business.

7.0 Reference: Exhibit C3-10, CEC Evidence by David W. Craig

Regarding BC Hydro’s Strategic Objectives for Capital Planning, CEC states in paragraph 124, “...identified ‘Strategic Objectives including Priorities, Performance Objective and Targets’... may be expected to provide significant direction as to what capital would be required over the next several decades, where it might be most valuably deployed, and what benefits are being sought from such deployment.” And in paragraph 125, “... that the details of such capital planning

⁴ Exhibit B-1, BC Hydro Ruskin Dam and Powerhouse Upgrade Application page 3-9

objectives and strategies, however, are largely unrecorded in the RRA... and have in any case not been comprehensively reviewed by either the Commission or interveners in the RRA proceeding.”

7.1 Is it CEC’s assertion that these strategic objectives properly should be reviewed by the Commission and the interveners in the RRA proceeding, or in some other proceeding?

ANSWER

It is the CEC’s view that BC Hydro’s strategic objectives, as they may drive capital expenditures and investments could be appropriately reviewed and assessed in a process independent of the RRA process and once properly organized and developed as useful information would be valuable to the Commission in fulfilling its responsibilities in an RRA proceeding.

The CEC considers that having the information regarding strategies well-defined will provide important contextual information for the RRA proceedings.

RRA proceedings often refer in text to some of BC Hydro strategies but is less frequently presented by BC Hydro in a way that it could provide a cost-effectiveness perspective on the particular strategy.

7.2 In CEC’s view, under what provision of the UCA, or other enabling legislation, would such a review by the Commission be authorized or mandated?

ANSWER

The CEC’s view is that the Commission already has information on some of BC Hydro’s strategies and the jurisdiction to have that information.

The Utilities Commission Act provides broad powers of supervision to the Commission. For instance Section 24 of the Utilities Commission Act requires the Commission to make examinations and conduct inquiries to keep itself informed about:

- (a) The conduct of public utility business;
- (b) Compliance by public utilities with the Act, regulations or any other law; and
- (c) Any other matters within the commission’s jurisdiction.

The CEC is also of the view that absence of adequate information on the capital driven by key and important strategies can weaken the Commission’s oversight and can impair its abilities to carry out its approval decision making responsibilities as effectively as the Commission might prefer.

8.0 Reference: Exhibit C3-10, CEC Evidence by David W. Craig

In commenting on BC Hydro’s Proposed Guidelines for Information on Capital Expenditures, CEC states in paragraph 210 that, “The requirement for driver

information is clear but does not necessarily result in information on the driver systems and the connection of the drivers to the need for capital being supplied.” By way of example, in paragraph 213, CEC states, “... detail about a Fort St. John and Taylor electrical supply project... is wholly inadequate to determine if the project is justified by the project drivers.”

8.1 Is it CEC’s view that the connections between the drivers and capital planning objectives and strategies should be comprehensively reviewed by the Commission and interveners and that BC Hydro should provide the additional information to enable that review?

ANSWER

It is the CEC’s view that, BC Hydro would likely have the specific information on the quantitative analysis that would be driving its capital expenditures and investments. The CEC expects that BC Hydro could make such information available, or the lack of such information if its is lacking could also be made available. The CEC expects that such information should be of considerable value to the Commission’s oversight responsibilities.

The CEC expects that over time, the information demonstrating the connection between drivers and capital objectives could be clearly established and understood by the Commission, interveners, and BC Hydro.

This information is foundational to a clear understanding of the overall cost-effectiveness of the utility and the appropriate and cost-effective deployment of capital.

The CEC is of the view that BC Hydro has the information available, and currently uses this information in its capital planning processes.

The CEC believes that BC Hydro, the Commission, and interveners can work cooperatively to ensure that the information is delivered to the public record to facilitate proper oversight by the Commission.

8.2 Is it also CEC’s view that Commission oversight should extend to validating the justifications for individual projects based on the cited drivers?

ANSWER

The CEC considers that an understanding of the drivers is foundational to an understanding of the need for capital expenditures and the cost-effectiveness of capital expenditures.

The CEC expects that the Commission already has oversight responsibilities regarding the drivers for capital expenditures and would benefit from BC Hydro making more visible its own assessment of the cost-effectiveness of its capital plans so that the Commission can assess how well such expenditures are justified.

Major capital drivers such as the load forecast or assessment of asset conditions can result in significant capital spending. Capital expenditures justified on the basis of particular capital

drivers can benefit from understanding the validity of that driver in appropriately driving the capital requirements.

Strategies for improving the effectiveness of the relevant driver information in driving needed capital will provide significant benefits. Commission oversight of information about how well BC Hydro is managing the effectiveness of the driver information will be useful to the Commission in its carrying out its approval responsibilities.

8.3 In CEC's view, under what provision of the Utilities Commission Act, or other enabling legislation, would such a review by the Commission be authorized or mandated?

ANSWER

The CEC's view is that the UCA explicitly mandates the Commission to inform itself. Section 43 expressly provides jurisdiction to seek information "the Commission requires".

The UCA provides broad powers of supervision to the Commission, for Section 24 of the UCA requires the Commission to make examinations and conduct inquiries to keep itself informed about

- (a) The conduct of public utility business;
- (b) Compliance by public utilities with the Act, regulations or any other law; and
- (c) Any other matters within the commission's jurisdiction.

9.0 Reference: Exhibit C3-10, CEC Evidence by David W. Craig

In paragraph 234, CEC appears to summarize its view of the proper oversight of strategies and their connections to the capital drivers, "The Commission should be able to clearly identify BC Hydro's overarching strategies, how they relate to the business drivers, and be able to determine whether or not they are cost-effective solutions to the issues facing the utility. The Commission should also be able to determine which strategies are the most cost effective, and which strategies are being utilized more or less over time. For instance the Commission should understand how much of the growth-driven capital is being addressed through new additions versus DSM, life extension options, system upgrades, or other options."

9.1 Does CEC acknowledge that this is a considerable extension of the Commission's current oversight which may require a major increase in the work load of the Commission, not to mention the work load of BC Hydro staff to provide the needed information?

ANSWER

The CEC does not consider that its proposal represents a considerable extension of the Commission's oversight. As noted, the UCA provides broad powers of supervision to the Commission.

The CEC considers that the information requirements identified in the evidence filed represents an important starting point for a staged process of obtaining appropriate foundations for the analysis of BC Hydro's capital requests.

Most importantly, each stage of the process for developing a cost-effectiveness perspective on BC Hydro's capital expenditures and investments would allow the Commission the opportunity to assess any costs of obtaining such oversight information against the benefits of obtaining such information.

If BC Hydro does not have information on the cost-effectiveness of some of its capital expenditures this will be important information for the Commission's oversight.

Where BC Hydro has valid and useful information providing it to the Commission should not be particularly costly and would have the benefit of enabling the Commission to better understand the appropriateness of capital expenditures and investments.

The question makes the assumption that the cost of information provided is the appropriate evaluation. Whereas the CEC's proposed principle of focusing on cost-effectiveness enables evaluation of costs versus the benefits.

The CEC is confident that having cost-effectiveness information about BC Hydro's capital expenditures and investments will provide sufficient benefits to justify the Commission's oversight and the Commission's collection of information to discharge its duties to inform itself adequately.

9.2 In CEC's view, under what provision of the Utilities Commission Act, or other enabling legislation, would such an increase in the oversight of the Commission be authorized or mandated?

ANSWER

Please see Response to CEBC 1.9.1.

The CEC does not consider that its proposal represents a considerable extension of the Commission's oversight.

The UCA provides broad powers of supervision to the Commission.

The Commission's jurisdiction to obtain information from BC Hydro devolves from several sections of the UCA as follows:

- (1) Section 24 provides that the Commission must make examinations and conduct inquiries necessary to keep itself informed about the conduct of public utility business;
- (2) Section 43(1) providing that a public utility must answer specifically all questions of the Commission and provide to the Commission the information the Commission requires;

- (3) Section 49 enables the Commission by order to require a public utility to keep records and accounts of the utility's business that the Commission may specify or provide at the times and in the form and manner the Commission specifies, a detailed report of finances and operations, verified as specified;
- (4) Section 78 (1) enable the Commission in regard to an inquiry the Commission considers necessary to have a member, officer or person appointed by the Commission to make the inquiry and the Commission may act on that person's report;
- (5) Section 82 (1) empowers the Commission on its own motion inquire into, hear and determine a matter under the Act that it may hear or determine on application or complaint.

The CEC does not believe that the Commission would be constrained if it were seeking to improve its oversight information for BC Hydro's capital expenditures and investments. The UCA provides the Commission with broad information gathering powers.

10.0 Reference: Exhibit C3-10, CEC Evidence by David W. Craig

In summarizing its conclusions re Post Implementation Reports, CEC states, "post-implementation reporting will need continuing follow-up in order to track through on capturing the benefits from given capital expenditures... and therefore ensuring the cost-effectiveness of the capital... is maximized."

10.1 Has CEC considered that in many cases the 'benefits' of capital projects are based on hypothetical avoided costs, which will be impossible to verify or validate if the project is undertaken? How does CEC propose to handle such cases?

ANSWER

The CEC fully understands that the process of verifying or validating benefits in any evaluation, whether that is for avoided future cost additions or current cost reductions. This problem is created because such analysis requires a forecast of what would have happened without the strategy, activity or project having been undertaken.

Nevertheless, it is always possible to make such forecasts and to make credible cases for the forecast. Weak forecasts for potential avoided future costs can lead to poor business cases, flawed justifications and project failures.

The CEC does not agree that avoided costs are impossible to verify or validate. For instance, changes in labour rates, costs of equipment and technology and other inputs to avoided costs can be readily quantified and verified.

Similarly, there is the potential for 'avoided costs' to not be 'avoided' after all if the project fails to deliver benefits. For instance, capital expenditures justified on the basis of reduced labour costs that do not materialize would be appropriate for assessing whether the benefits were appropriately captured.

The CEC would handle these situations and in fact all evaluations by looking to see if the base line forecast assumptions have been well documents and form a valid basis for assessing benefit realization.

The key to all such analysis is the quality of the base line forecasts and the assumptions.