

REQUESTOR NAME: Canadian Office and Professional Employees Union, Local 378 (COPE 378)

INFORMATION REQUEST ROUND NO: 1

TO: BRITISH COLUMBIA HYDRO & POWER AUTHORITY

DATE: DECEMBER 20, 2011

PROJECT NO. 3698622/Order G-40-11

APPLICATION NAME: F2012 to F2014 Revenue Requirements Application

2011 REVIEW OF BC HYDRO

Reference: Exhibit B-1-3, Appendix BB

- 1.1 Was BC Hydro consulted by the government on the launching of the review process prior to the decision to proceed with it?
- 1.2 When did the review committee commence work?
- 1.3 When did the review committee complete its report?
- 1.4 Please file copies of any studies prepared by BC Hydro for the purposes of the work of the Review Committee.
- 1.5 Without limiting the generality of the foregoing, please file copies of any studies or analysis provided by BC Hydro to the review committee concerning:
 - The impact of staffing cuts;
 - The reliability impact of deferring planned capital projects;
 - The attainment of self-sufficiency;
 - The cost of energy; and
 - SMI and the “smart grid”.

PAYMENTS TO THE PROVINCIAL GOVERNMENT FROM BC HYDRO'S OPERATIONS

2 Reference: Exhibit B-1-3, p.1-11)

BC Hydro states that “[T]he Province has also taken steps to ease the rate burden for BC Hydro’s customers. As of January 1, 2011, increases in water rental rates that BC Hydro pays are tied to inflation instead of to BC Hydro’s rate increases. In addition, BC Hydro’s return on equity to the Province is 1 now based on the total assets in service rather than total debt plus equity. These two actions offset BC Hydro’s rate increases by approximately 2 per cent per year over the F2012 to F2014 period”

2.1 Please detail the payments to the Provincial Government from BC Hydro’s operations in the years F2005 to F2011 in tabular form as follows:

	F2006	F2007	F2008	F2009	F2010	F2011
Water Rentals BC Hydro and IPPs						
Carbon Tax BC Hydro and IPPs						
Return on Equity- Distributed						
Return on Equity- Retained						
Schools Taxes						
Other Taxes						
Other						
Total						

2.2 Please provide the relevant data in the same format for the test period (F2012-14).

2.3 Please demonstrate how “these two actions offset BC Hydro’s rate increases by approximately 2 per cent per year over the F2012 to F2014 period”.

2.4 Please calculate BC Hydro’s Return on Equity for the test periods F2012 to F2014 using the following methodologies:

1. The original HC2 calculation in OIC 1123 of November 2003;
2. The amended calculation in OIC 028 of January 2008;
3. The amended calculation of OIC 074 of February 2008;and
4. The current methodology (set out in OIC 020 of February 2011).

2.5 Similarly with Water Rentals please calculate the Water Rental charges for the test period F2012 to F2014 using the former methodology.

2.6 Does BC Hydro agree that one of the key drivers of BC Hydro’s rate applications (original and amended) was the need to preserve the Government’s return on BC Hydro’s equity and its dividend from BC Hydro?

3 Reference: Exhibit B-1-3, Appendix D p.31.7

BC Hydro’s shareholder letter of expectations obliges BC Hydro to “comply with the Shareholder's requirements to be carbon neutral under the *Greenhouse Gas Reduction Targets Act*, including: accurately defining, measuring, reporting on and verifying the greenhouse gas emissions from BC Hydro's operations; implementing aggressive measures to reduce those emissions and reporting on these reduction measures and reduction plans; and offsetting any remaining emissions through investments in the Pacific Carbon Trust, which will invest in greenhouse gas reduction projects outside of BC Hydro's scope of operations.

3.1 Please detail payments made to the Pacific Carbon Trust i) in the years up to F2011 and ii) proposed to be made in the test period.

COLUMBIA RIVER TREATY

4.1 With respect to each fiscal year from 2005 through 2014, please provide the following information:

- a) The total downstream entitlement under the CRT;
- b) The amount claimed by BC Hydro for domestic purposes;
- c) The average annual price of power at mid-C.

4.2 Please comment on whether the product of a)-b)*c) would yield an acceptable proxy for the Provincial Governments income from the CRT.

4.3 BC Hydro states that it is obliged to incur PTP charges on the export leg, but that these charges are not assigned to Powerex because they arise solely from the Treaty obligation to deliver to the border, which serves BC Hydro domestic purposes, as reflected in the fact that the border delivery obligation qualifies the Canadian Entitlement as a network resource under the OATT, and a contingent resource in long-term resource plans (Exhibit B-1-3, p. 8-28).

4.3.1 Please provide the amount of PTP charges BC Hydro incurred in this regard over the period 2005 to 2011 and is expected to incur in the test period.

OPERATIONS CUTS

5.0 What are the three most detrimental impacts flowing from the staff reductions which are being implemented further to the Review and the “agreement” with government?

6 **Reference: Exhibit B-1-3, p. 5-14 lines 17 – 25:**

The reductions have been enabled by centralizing management of enterprise-wide functions, streamlining business and systems processes, reducing coverage for communications and engagement, reducing business support, and reducing strategic advisory support. The changes will result in lower service levels for internal support and administrative services such as decreased availability/timeliness of support services, decreased information in reports, and decreased frequency of reporting.

6.1 Communications

6.1.1 What is the role of “communications” for BC Hydro?

6.1.2 What is the role of “communications” specifically in relation to achieving energy conservation objectives?

6.1.3 In what ways will communications be reduced? Please give illustrative examples.

6.1.4 What does BC Hydro anticipate to be the likely concrete impact of reduced communications?

6.1.5 Please confirm that BC Hydro had not intended to reduce communications in the manner projected by this passage, prior to the BC Hydro Review.

6.2 Engagement

6.2.1 What forms of “engagement” are included in this passage?

6.2.2 Why does BC Hydro undertake engagement?

6.3.3 What is the role and importance of each of those forms of engagement?

6.3.4 In what ways will engagement be reduced? Please give illustrative examples.

6.3.5 What does BC Hydro anticipate to be the likely concrete impact of reduced engagement?

6.3.6 Please confirm that BC Hydro had not intended to reduce engagement in the manner projected by this passage, prior to the BC Hydro Review.

6.3 SMI and communications/engagement

6.3.1 What is BC Hydro’s best estimate of the total cost it will have incurred with respect to communications and engagement concerning smart metering and the smart grid, by the end of fiscal 2014?

6.4 Business Support

6.4.1 What is the role of “business support” for BC Hydro?

6.4.2 Why does BC Hydro require business support?

6.4.3 What forms does business support take, how are they carried out, and by whom?

6.4.4 In what ways will business support be reduced? Please give illustrative examples.

6.4.5 What does BC Hydro anticipate to be the likely concrete impact of reduced business support?

6.4.6 Please confirm that BC Hydro had not intended to reduce business support in the manner projected by this passage, prior to the BC Hydro Review.

6.5 Strategic advisory support

6.5.1 What is the role of “strategic advisory support” for BC Hydro?

6.5.2 Why does BC Hydro require strategic advisory support?

6.5.3 What forms does strategic advisory support take, how are they carried out, and by whom?

6.5.4 In what ways will strategic advisory support be reduced? Please give illustrative examples.

6.5.5 What does BC Hydro anticipate to be the likely concrete impact of reduced strategic advisory support?

6.5.6 Please confirm that BC Hydro had not intended to reduce strategic advisory support in the manner projected by this passage, prior to the BC Hydro Review.

6.6 Decreased availability/timeliness of support services

6.6.1 What implications will decreased availability and timeliness of support services have?

6.6.2 What impact will reduced timeliness of support services have upon the efficiency of professional and management staff who rely upon those services?

6.7 Decreased information in reports, and decreased frequency of reporting.

6.7.1 What implications will decreased information in reports, and decreased frequency of reporting, have upon BC Hydro’s ability to comply with the reporting expectations of government?

6.7.2 What impact will it have in relation to the following government expectation expressed at page 4 of the BC Hydro Review Report (New Appendix BB) concerning risks arising from Hydro’s proposed rate reductions:

“Achieving this reduction will require significant attention to risk management and enhanced reporting, by BC Hydro, as well as monitoring by government.”

6.7.3 What implications will decreased information in reports, and decreased frequency of reporting, have upon BC Hydro's ability to comply with the reporting expectations of the Utilities Commission?

6.7.4 What implications will decreased information in reports, and decreased frequency of reporting, have upon BC Hydro's ability to comply with the reporting expectations of Hydro's regulatory stakeholders?

6.8 Planned Further Operations Cuts

6.8.1 Please confirm that the passage quoted above describes only the impact of the cuts initiated in the autumn of 2011.

6.9 What does BC Hydro mean by "staff augmentation" in the context of contracted work?

7 Cuts and Review Panel Report

Reference: Exhibit B-1-3, Appendix BB

According to the Panel Report, "[B]etween 2006 and 2010 (prior to BCTC integration), BC Hydro experienced excessive growth, rising from 3,976 to 5,615 employees, representing an increase of 1,639 employees over a four year period. Many of the new staff were allocated to (directly or in support of) capital projects to meet the need for self-sufficiency by 2016.

As a comparison, BC Hydro currently employs approximately 650 engineers, which is about six times more than the Ministry of Transportation and Infrastructure, with a similar-sized capital program" (Exhibit B-1-3, Appendix BB, p.49).

7.1 Does BC Hydro agree with the characterization "excessive"?

7.2 Please provide the details of how many of the new staff were allocated...to meet the need for self-sufficiency"?

7.3 Does BC Hydro consider the Ministry of Transportation and Infrastructure to be a suitable comparator when considering the number of engineers on its payroll? Please explain.

8 The Panel states "BC Hydro is reviewing the span of control (the ratio of staff to managers) in their organization to facilitate efficiencies. Currently there is a ratio of approximately one manager to every seven point five employees. Its plan is to move the non-operational support areas of the organization to an average 1:10 ratio by Fiscal 2013, and an

overall increase to the manager-to-employee ratio to the 1:10 average level in Fiscal 2013 and 2014” (Exhibit B-1-3, Appendix BB, p.15).

8.1 Please calculate what moving from 1:7.5 to 1:10 will mean in managerial cost reductions.

8.2 Please demonstrate how these savings have been built into the test period.

8.3 In addition, please provide the number of levels of management in the various departments between the CEO and the staff who interact with the public. Please comment on the suitability with the number of levels and how it compares with best utility practice.

9 The Panel concludes “The panel has identified the need for finding staffing efficiencies within their [sc. BC Hydro] organizational structure. As a result of the review and discussions with BC Hydro, the panel believes that a more reasonable staffing level would be in the order of 4,800 employees (Exhibit B-1-3, Appendix BB, p. 15).

9.1 Please state whether BC Hydro agrees with the Panel’s findings and whether the 4,800 number was the result of any investigations, assessments or other reviews of the workplace provided to the Panel, or was the result of studies performed by the Panel and/or its advisors.

9.2 If such investigations, assessments or other reviews were conducted, please provide a copy of any reports, memoranda or other documents outlining the terms of reference and/or conclusions from these investigations.

9.3 If the 4,800 number was not the product of such investigations, assessments or other reviews, then what was its basis, to the best of BC Hydro’s knowledge?

10 The Panel recommends (inter alia) that BC Hydro:

(8) Work with Unions, through a collaborative process, to identify and implement cost effective solutions to reduce overtime, including scheduled overtime and improve overall productivity of the organization.

(9) Evaluate whether overtime may be more effectively managed through the use of private sector contractors.

(Exhibit B-1-3, Appendix BB, p. 54)

10.1 Please confirm that BC Hydro agrees with these two recommendations, and, if so, what the recommendations mean and how BC Hydro plans to implement them.

Workforce Reduction

11 BC Hydro states that “[D]uring the review [sc. the Panel Review]BC Hydro accepted that it could accelerate the workforce reallocation work already underway and further reduce the workforce by an additional 150 FTEs for a net reduction of 350 FTEs by the end of F2014 (Exhibit B-1-3, p.5-13).

11.1 What was the basis upon which BC Hydro “accepted” the notion of acceleration?

12 BC Hydro states that on October 12-13, 2011, it eliminated approximately 300 FTEs, and that a further 150 FTEs will be eliminated during the course of F2013 and F2014 from non-safety sensitive areas of the company (Exhibit B-1-3, p.5-14).

12.1 Please provide a breakdown of the approximately 300 FTEs eliminated by department and affiliation (IBEW, COPE, M&P, and Executive).

12.2 Please provide a breakdown of the further 150 FTEs to be eliminated by department and affiliation (IBEW, COPE, M&P, and Executive).

13 BC Hydro estimates that FTE reductions will achieve gross cost savings of about \$73 million during the test period and that severance and outplacement costs are estimated to be \$19 million over the test period (Exhibit B-1-3, p.5-14).

13.1 Please provide a breakdown of the gross cost savings and the severance and outplacement costs by year, by department and by affiliation (IBEW, COPE, M&P, and Executive).

Outsourcing

Reference: Exhibit B-1-3,pp.5-15/7

14 BC Hydro states that it has:

- **amended and extended its agreement with ABS to April 2019:**
- **entered into new agreements to obtain data centre operation services from TELUS and facilities management services from SNC Lavalin Operations & Maintenance Inc.; and**

- **plans to go to market for the IT services with the goal of transitioning (sic) to new service providers by April 2013.**

BC Hydro forecasts gross cost savings for the test period of \$35 to \$40 million relative to the previous agreement with ABS.

BC Hydro expects gross cost savings of \$119 million over the life of the three new agreements and the contemplated agreements for the balance of the IT services being taken to market.

14.1 Please provide the business case studies presented to BC Hydro's Board of Directors and/or Executive Committee to justify taking these services to market.

14.2 Please provide details of how BC Hydro has calculated the gross cost savings for the test period by contract and savings type.

14.3 Similarly provide details of how BC Hydro has calculated the gross cost savings over the lives of the new agreements, by contract and savings type.

14.4 Does the agreement with TELUS require TELUS to provide and own the data centre assets.

14.5 Given its low cost of capital and tax-exempt status how does BC Hydro consider that a private sector provider can offer these services at a lower cost than BC Hydro?

15 BC Hydro states that it has also recently decided to outsource materials transportation (i.e., trucking) services, previously performed by Construction Services in the T&D Business Group, to various external companies (Exhibit B-1-3, p.5-17).

15.1 Please provide the business case for this decision.

Smart Metering and Infrastructure (SMI)

16 Reference: General

16.1 What is the expected operational life of one of the smart meter units now being installed for BC Hydro? Please file any supporting studies or other documents.

16.2 What is the duration of any warranties granted by the manufacturer(s) or supplier(s) of the meters being installed under this program?

16.3 Have the meters been tested and approved by CSA or a comparable safety agency? If so please provide the approval particulars.

16.4 Has BC Hydro (either directly or through an agency or contractor) tested the meters for durability and for safety? If so please provide particulars.

17 Reference: Exhibit B-1-3, p. 7-24 Table 7-5

This table indicates that SMI will reduce sales loss due to electricity theft by 1 GWh in F2012, 51 GWh in F2013 and 287 GWh in F2014.

17.1 Please re-create Table 7-5 showing savings expressed in dollar savings to ratepayers. If this is not calculated on the basis of BC Hydro's long run incremental cost of energy please explain why not.

18 Reference: Exhibit B-1-3, Schedule A Schedule 17.0 line 17.

18.1 Why is reduced diversion indicated on the basis of April 2, 2001 rates?

18.2 What is the credit BC Hydro is prepared to give to ratepayers for reduced diversion on the basis of the rate applied-for in each of the three fiscal years.

18.3 Please reconcile the information contained in Table 7-5 and Schedule 17.0 regarding electricity thefts and SMI benefits.

19 Reference: Exhibit B-1-3, p. 6-76

The [Smart Metering and Infrastructure] program elements include:

- **Systems and infrastructure to reduce electricity theft that will help to create safer communities and mitigate rate impacts borne by legitimate customers.**

19.1 How will the program reduce theft? Please detail the anticipated processes, mechanisms or narratives which will produce this result.

19.2 When and how will smart metering begin to reduce theft?

19.3 What proportion of electricity theft does BC Hydro expect that this program will eliminate?

19.4 Please file any studies or information available to BC Hydro concerning the incidence of electricity theft from utilities in other jurisdictions which have implemented SMI.

19.5 Please confirm that distribution line losses include the impact of distribution-level electricity theft. If not, please explain why not or to what extent.

20 Reference: Exhibit B-1-3, p. 7-24:

In Order G-115-11, the Commission authorized BC Hydro to accelerate the rate of depreciation on its existing meters and also to include the increased amortization incurred in F2011 of \$8.9 million in the SMI Regulatory Account. In the Amended F12-F14 RRA, the portion of the deferred amortization on line 94 of Schedule 2.2 that represents accelerated

depreciation of the existing revenue meters is \$38.8 million in F2012 and \$27.3 million in F2013.

20.1 What steps is BC Hydro taking to maximize the salvage recovery it realizes from analogue meters which are being decommissioned as smart meters are installed. What is the amount of such recovery and how is it being credited to ratepayers?

21.0 What is the total additional cost flowing from the decision to install a wireless smart metering technology rather than one which transmits data via the power line?

22.0 What is the total cost of the internet-based customer feedback system?

THE TREATMENT OF EPAS THAT ARE CAPITAL LEASES

23 BC Hydro states that “[F]or F2011, the review identified two EPAs that required capital lease treatment, resulting in the recognition of a capital lease asset and a corresponding liability of \$511 million, which will be amortized over the term of the EPAs” (Exhibit B-1-3,p.8-15).

23.1 Please file a copy of EIC 150.

23.2 Please confirm that the two EPAs referred to are Island Generation and Dokie Wind. If not, which two remain as capital leases?

23.3 Given that the original Dokie EPA was one of those entered into pursuant to the F2006CFT which entailed a standard EPA, what amendments were made to its terms and conditions so that it alone, and not any of the remaining F2006CFT EPAs, triggered the provisions of lease accounting under EIC 150.

24 BC Hydro states that “[F]or the F2012 to F2014 period, the ongoing review identified four additional EPAs that require capital lease treatment”, but that these no longer meet the capital lease criteria.

24.1 Please identify the four additional EPAs, and explain why they ceased to meet the criteria.

24.2 Does BC Hydro consider that the adoption of US GAAP for utilities might trigger consideration of Variable Interest Entities?

24.3 Has BC Hydro considered whether any of its EPAs would qualify as VIEs?

24.4 If so, which and what would the impact be on the test period?

REGULATORY BALANCING ACCOUNTS

25 The Review Panel Report states that “[I]n Fiscal 2010, BC Hydro’s net regulatory assets were \$1.7B, compared with \$1.1B at Hydro-Quebec and \$299M at Manitoba Hydro. Pacific Gas and Electric’s net regulatory assets are \$2.7B for Fiscal 2010” (Exhibit B-1-3, Appendix BB, p.121).

25.1 There are a number of other references to PG&E in the Application which state that BC Hydro uses PG&E as a comparator (such as Appendix T, p.4). Please confirm this.

25.2 Please provide a breakdown of PG&E’s net regulatory assets of \$2.7B for Fiscal 2010. If BC Hydro cannot confirm the Panel’s reference, please provide an analysis of the number BC Hydro considers correct.

25.3 How much of PG&E’s net regulatory assets are described as “Regulatory Balancing Accounts”?

25.4 Please describe how these accounts are operated, what goes into them, and how the amounts are recovered from PG&E’s customers.

25.5 Please describe how interest is allowed to be calculated on these accounts, and confirm that it is based on short-term (90day) rates.

25.6 Please confirm that the treatment described for PG&E is also applicable to California’s two other major Investor-Owned Electric Utilities- San Diego Gas and Electric and Southern California Edison.

ENERGY DEFERRAL ACCOUNTS

26 General

Paragraph 7 of HC 2 (OIC 1123 dated November 27, 2003) obliges the Commission(*inter alia*) to set or regulate the authority's rates in such a way as to allow the deferral accounts to be cleared from time to time and within a reasonable period of time.

26.1 Please state whether the Energy Deferral Accounts have ever actually been cleared (to zero).

26.2 Please provide commentary on how BC Hydro interprets the phrase “within a reasonable period of time”.

27.0 Please provide copies of all BC Hydro’s annual Deferral Account Reports filed with the Commission from F2006 to F2011.

28.0 Please provide an analysis of the additions to each of the three remaining energy deferral accounts by quarter since their inception, to demonstrate whether the additions have accreted (or decreted) evenly over the years.

29.0 Please provide a commentary on the reasons for uneven seasonal accretion.

30 BC Hydro states that in the F05/F06 RRA, it proposed the following criteria to be used to assess whether a risk was controllable or non-controllable:

- 1. BC Hydro’s ability to directly or indirectly influence the cost category;**
- 2. The volatility of the cost category;**
- 3. The predictability of the cost category;**
- 4. The materiality of the cost category to the revenue requirement; and**
- 5. The frequency of major exceptions within the cost category.**

(Exhibit B-1-3, p.7-3)

30.1 Please comment on whether these criteria are still relevant in F2012 as they were in F2005.

30.2 Please include in the commentary why BC Hydro apparently continues not to share the Commission’s view, stated in its F05/F06 RRA Decision, that risk/reward considerations were also a relevant criterion.

30.3 What have been the impacts of i) changes in the economies of BC and neighbouring jurisdictions, ii) the introduction of government energy legislation and policy, and iii) system growth on the operation of the energy deferral accounts?

31 BC Hydro concludes that “the probability distribution of the simulated annual transfers to the Deferral Accounts is not symmetric. Approximately two-thirds of the time there is expected to be a net increase in the total balance in the Deferral Accounts, and the median outcome shows a net annual increase in the total balance in the Deferral Accounts of approximately \$50 million. On the other hand, there are a small number of years in which

there are expected to be large net reductions in the total balance in the Deferral Accounts” (Appendix H, p.6).

31.1 Does BC Hydro consider that the distribution not being symmetric has always been the case since F2005, or that events subsequent to that time have caused the lack of symmetry?

31.2 Given the absence of symmetry does BC Hydro consider the DARR methodology approved by the Commission in Order G-16-09 to be still relevant, or that the Commission should consider alternative methodologies to recover the additions to these accounts from its customers and/or its shareholder.

32 BC Hydro states that in carrying out its Monte Carlo simulations in Appendix H, its assumed " that there would be no net additions to the TIDA since Trade Income is not closely related to water inflows and there is no basis on which to forecast differences between forecast and actual Trade Income” (Appendix H, p.5).

32.1 Given the lack of close relation to water inflows, has BC Hydro considered alternative methods of crediting its cost of service with the amounts of Trade Income to which the Heritage Contract may entitle it, from time to time?

33 Interest Rate

BC Hydro states that it is requesting approval to change the interest rate applicable to regulatory account balances to BC Hydro’s WACD for its current fiscal year, effective April 1, 2011 (Exhibit B-1-3, p.7-5).

33.1 Please demonstrate by reference to the schedules in Appendix A of Exhibit B-1-3 how BC Hydro finances the balances in its energy deferral accounts, including how it proposes to finance the forecast additions of \$215 million to the NHDA in the test period?

33.2 Please comment on whether it would be more appropriate for the balances on the energy deferral accounts to earn interest at the 90 day Bankers’ Acceptance rate?

33.3 Please provide the current 90 day BA rate and that forecast to prevail during the test period.

34 Heritage Deferral Account

BC Hydro seeks a Commission order allowing the transfer of the F2011 closing balance of the GMS 3 Regulatory Account to the HDA. BC Hydro forecasts the closing F2011 balance of the GMS 3 Regulatory Account to be \$43.3 million as follows: (Exhibit B-1-3, p.7-18)

Description	Amount
Repair Costs	\$22.3 million
Opportunity Costs Related To Water Stored In The Williston Reservoir During The Outage	\$29.5 million
Interest Costs	\$6.0 million
Net Insurance Proceeds	(\$14.5 million)
Total	\$43.3 million

34.1 Please explain why BC Hydro is not proposing to capitalize the net repair costs and amortize them over the remaining life of GM Shrum 3.

34.2 Please explain the rationale of deferring \$29.5 million of opportunity costs related to water stored in the Williston reservoir during the outage?

34.3 How was the amount calculated?

34.4 What was the other side of the book keeping entry, what was the date of the entry, and what was the impact of the entry on earnings for the year in question?

35 Non-Heritage Deferral Account

BC Hydro states that the increase in the total balance in the Deferral Accounts in F2011 is principally due to the deferral of \$222.5 million of costs for later recovery from customers in accordance with the F11 RRA NSA (Exhibit B-1-3, Appendix H, p.3), while in its Annual Report on Deferral Accounts it states: “Note 4: Per BCUC Order No. G-180-10 dated December 2, 2010, BC Hydro transferred an additional \$222.5 million to the NHDA in F2011 in order to maintain the F2011 rate increase at 6.11 per cent” (Exhibit B-1-3, Amended Appendix P).

35.1 Please confirm that these two statements refer to the same transaction.

35.2 Please provide the reference in the Order G-180-10 approving the transfer of \$222.5 million to the NHDA, as neither the Order, the Reasons therefor nor the NSP itself appear to contemplate such a transaction.

36 BC Hydro seeks final orders regarding the NHDA as follows:

- **the continuation for F2012 to F2014 of the deferral through the NHDA of the differences between forecast and actual cost of energy arising from differences between forecast and actual domestic customer load; and**
- **to defer the impact of the increase in the forecast of the net Cost of Energy in the F2012 to F2014 period, a transfer to the NHDA of \$65.9 million in F2012, \$103.2 million in F2013 and \$46.2 million in F2014.**

(Exhibit B-1-3, p.1-42)

36.1 Please confirm that the transfers proposed in the second bullet were driven solely by the need to cap the rate increases for F2013 and F2014 at 3.91%, including maintaining the DARR at 2.5% throughout the test period.

36.2 Absent the “agreement” between BC Hydro and the Review Panel to cap the rate increases for F2013 and F2014 at 3.91%, including maintaining the DARR at 2.5%, what would be the rate increase that BC Hydro would be seeking on an interim basis for F2103, for both base rates and DARR?

Deferral Account Rate Rider

37 BC Hydro states that it “supports the setting of the DARR based on BC Hydro’s previously approved DARR mechanism within the constraints of the overall 10 per cent net bill impact to customers for the F2012 to F2014 period” (Exhibit B-1-3, p.2-10).

37.1 Does BC Hydro consider that the DARR is capped at plus or minus 5%? That is, when the balance is (say) \$700 million should it be set at 7%?

37.2 BC Hydro currently applies the DARR to its customers’ bills. To the extent that portions of BC Hydro’s customer rates reflect (or are supposed to reflect) the marginal costs of power acquisition, would BC Hydro consider it, in principle, equitable to apply the DARR to these portions of its rates?

Demand Side Management

38 BC Hydro states that “[N]early all of Power Smart’s costs are classified as deferred operating expenditures... and that “ Power Smart also incurs operating expenditures, such as administrative costs, training and other activities that do not directly support DSM targets, and are therefore classified as current operating expenditures”(Exhibit B-1-3, p.5-140).

38.1 Please explain BC Hydro's policy of determining whether a Power Smart cost should be deferred or currently expensed.

38.2 What is the policy of other utilities in Canada in this regard?

38.3 What is the policy of the following US utilities in this regard:

- i. Public Service of Colorado, Sierra Pacific- Nevada, and Arizona Public Service (these were the three US utilities cited by BC Hydro in the 2008 LTAP proceeding (Exhibit B-3, BCOAPO 1.15.1); and
- ii. PG&E and any other major US utility BC Hydro wishes to cite and compare?

Demand Side Management Deferred Expenditures Amortization

39 BC Hydro states that it is now seeking Commission approval to increase the amortization period for the DSM Regulatory Account from 10 years to 15 years, which "period aligns more closely with the updated persistence of program electricity savings" (Exhibit B-1-3, Appendix II, p. II-1-6). In Figure 1 of Appendix II BC Hydro sets out the weighted persistence of its programs for the years F2002 to F2011 and that forecast for F2012-15.

39.1 Please provide in spreadsheet format the details of the calculations behind this table.

39.2 Please summarize the components of each year's result, and provide the reasons behind any persistence which changed by more than 2 years per annum.

39.3 Would the amortization charge proposed by BC Hydro change significantly if the amortization were to be calculated on a program by program basis?

39.4 Please update BC Hydro's response to BCUC 1.115.4 in the 2008 LTAP proceeding, together with a more fulsome statement of assumptions.

First Nations Negotiation and Settlement Costs

40 BC Hydro states that it has reached settlements with the Kwadacha and Tsay Keh Dene First Nations. Both settlements included a lump sum payment in F2010 and ongoing annual payments starting in F2010, and that in May 2011, BC Hydro reached a settlement with the St'at'imc First Nation which included a lump sum payment in fiscal 2012 and ongoing annual payments. BC Hydro states that it must submit an application to the BCUC for a determination of the manner in which settlement payments may be recovered in rates, and

that it is not seeking approval to commence amortization of any settlement payments in this application (Exhibit B-1-3, p.7-12).

40.1 Please confirm the amount of costs of the ARN BC Hydro currently defers and how much it proposes to defer in the test period.

40.2 Why has BC Hydro not made an application to the Commission in respect of the three settlements referenced above? When does it propose making applications?

40.3 What accounting treatment does BC Hydro propose for these settlement payments?

40.4 Please comment on the appropriateness of BC Hydro's ratepayers ultimately bearing the cost of these settlements as opposed to the Provincial or the Federal Government.

Capital Project Investigation Costs

41 BC Hydro states that the closing F2011 balance in the CPI Regulatory Account was \$49.0 million, and proposes that this balance be amortized over a ten-year period beginning in F2012 (Exhibit B-1-3, p.7-15).

41.1 Please provide details of the expenditures by year, by project and by cost type.

41.2 To the extent that projects proceeded to the implementation stage, please explain why the costs are not being amortized over the service lives of the underlying assets.

41.3 To the extent that some or all of the \$49 million relates to projects that will not proceed, please comment on the appropriateness of having BC Hydro's customers pay for them.

41.4 To the extent that the projects are still being investigated please comment on the appropriateness of commencing amortization.

Amortization of Capital Additions

42 BC Hydro states that “[A]s part of the plan to achieve rate increases of 8 per cent in F2012 and 3.91 per cent in F2013 and F2014, BC Hydro is proposing to refund in F2012 the credit balance of \$9.5 million in the Amortization of Capital Additions Regulatory Account at the end of F2011” (Exhibit B-1-3, Section 7.3.14).

42.1 Absent the plan, please explain how BC Hydro would have proposed to refund the credit balance on this account.

42.2 Does BC Hydro not agree that this is a typical Regulatory Balancing Account whose purpose is to collect variances so as to protect both the utility and its customers from the effects of over or under-estimation?

42.3 Would BC Hydro not agree that a more rational approach to such accounts is to have the balances (debit or credit) refunded or collected through rates in the following year?

Smart Metering & Infrastructure

43 BC Hydro proposes to defer the following costs during the test period:

	F2012	F2013	F2014	Total
Operating	46.4	50.4	15.2	112.0
Amortization	52.4	59.7	38.3	150.4
Finance Charges	9.1	22.8	29.2	61.1
ROE	7.1	17.1	22.2	46.4
Interest	4.3	10.4	16.8	31.5
Total	119.3	160.4	121.7	401.4

(Exhibit B-1-3, Appendix A, Sch 2.2 p.9)

43.1 Please confirm that the smart meters will be installed and operational within the test period, and that BC Hydro says that ratepayers will obtain some benefits from SMI during the test period.

43.2 Please explain why BC Hydro is not proposing to recover the unamortized balance on the existing residential meter account from its customers in the test period?

43.3 Please describe the accounting and ratemaking treatment ordered by the Ontario Energy Board for the unamortized value of residential meters in Ontario ("Stranded Assets") in 2007.

Home Purchase Offer Plan

44 BC Hydro states that it purchased certain residential properties in the Tsawwassen area with a BC Hydro right-of-way registered against title and located on the transmission right-of-way between Tsawwassen Substation and English Bluff Terminal Station, and that by Order G-55-09 the Commission approved the establishment of a regulatory account to defer the net costs of the HPOP.

Notwithstanding the fact that the resale of the homes under the HPOP has occurred faster than originally planned and all home resales were completed in F2012, BC Hydro proposes to continue to defer the recovery of the net program costs through the test period (Exhibit B-1-3, p.7-25).

44.1 Please confirm that these expenditures were made in connection with the Vancouver Island Reinforcement Project.

44.2 When did VITR go into service?

44.3 Please explain why BC Hydro has not already commenced amortizing the HPOP costs over the service life of the VITR?

Outsourcing Implementation Costs

45 BC Hydro states that it is incurring costs to implement new contracts with ABS, TELUS, SNC Lavalin, and with as yet undetermined suppliers of outsourced IT services.

As part of the plan to achieve rate increases of 8 per cent in F2012 and 3.91 per cent in F2013 and F2014, BC Hydro is proposing the establishment of a regulatory account (the Outsourcing Implementation Costs Regulatory Account) to defer the costs of implementing new outsourcing arrangements for the services previously outsourced to ABS under the Amended Master Services Agreement.

BC Hydro forecasts that the costs of implementing the new outsourcing arrangements will be \$16.3 million in F2012, \$10.8 million in F2013 and \$3.6 million in F2014 (Exhibit B-1-3, p.7-31).

45.1 When did the various agreements referenced above become effective and for what periods?

45.2 For the outsourced IT services what is BC Hydro's estimate of the effective date(s) and term?

45.3 Please identify each contract which has been entered into or is pending between BC Hydro and TELUS with respect to IT and data functions. For each contract, please indicate the date upon which it was tendered, the tender number, and the date upon which TELUS was selected as the provider.

45.4 Please provide a copy of the business case presented to Hydro's Board of Directors or Executive Committee with respect to these outsourcing decisions.

45.5 Please provide an analysis by year of the costs BC Hydro proposes to defer, and provide details of the wind-down and start-up costs charged by the previous and new service provider related to the transition of services (approximately \$26 million), and outsourcing and advisory services (approximately \$5 million) for a total of approximately \$31 million.

45.6 What is the rationale for deferring the cost of implementing these outsourcing decisions?

Total Finance Charges Regulatory Account

46 BC Hydro states "[T]he principal drivers of the increase in finance charges are:

1. The one-time credit to customers in F2011 of the \$104 million closing F2010 balance in the Total Finance Charges Regulatory Account which does not continue in the test period" (Exhibit B-1-3, p.1-27).

46.1 Please explain the following:

- i. the original purpose of this account;
- ii. how the balance in it of over \$100 million arose; and
- iii. the justification of crediting \$100 million to revenue requirement in F2011.

Amended Cost of Energy

Island Cogeneration Plant

47 BC Hydro states that as of April 1, 2010, it entered into a revised contract for ICG that permits the plant to be economically dispatched by BC Hydro (Exhibit B-1-3 p.4-6).

BC Hydro also states that the reduction in the average volume of IPP deliveries during the test period is primarily due to the gas-fired Island Cogeneration Plant (ICG) being economically dispatched down due to high fuel cost, including the impact of the Carbon Tax (Exhibit B-1-3 p.4-3).

47.1 Please state whether the amended agreement was accepted by the Commission and give the Order number.

47.2 Given that its contents are no doubt confidential, please summarize in general terms the major changes to the previous agreement.

47.3 Under what regime is ICG currently being operated?

47.4 What is its heat rate under this regime and does it differ from that achieved prior to April 2010?

47.5 What is the commodity cost of the natural gas (including BC's Carbon Tax) burned at ICG?

47.6 Please comment on the categorization of the fuel cost as "high" in comparison with BC Clean deliveries from IPPs.

Burrard Thermal Generating Station

48 BC Hydro states that under the terms of Ministerial Order 314, it may plan on and operate Burrard as prescribed until new generating units at Mica (Mica 5 and 6), the Interior to Lower Mainland Transmission project, and a new transformer at the Meridian substation are all installed and in service.(Exhibit B-1-3 p.4-5).

48.1 Are there any other capital expenditures, such as transmission capacity and capacitor stations, required to deliver the additional capacity to the Lower Mainland that are not mentioned in the Ministerial Order? If so please describe them and their cost.

48.2 What are the currently projected in-service dates for Mica 5, Mica 6, 5L83, and MDN as well as any other projects required?

48.3 Based on current and forecast natural gas prices (including Carbon Tax) what is the incremental cost of generation out of BTGS for the test period?

48.4 MO 314 appears to restrict the operation of BTGS to times when there are no other domestic sources of energy available. What is the impact of this restriction on the cost of energy in the test period?

System Storage and Inflow Forecast

49 BC Hydro states that “[O]n the assumption of normal inflows in F2013 and F2014, system storage energy content at the end of F2012, F2013 and F2014 is expected to be about 12,400 GWh, 12,600 GWh and 11,900 GWh respectively” (Exhibit B-1-3,p.4-12).

49.1 Please confirm that in F2014, system storage energy content will be drawn down by 700 GWh.

49.2 What is the financial impact of this assumption on the cost of energy for F2014?

49.3 Please confirm that, all else being equal, any decision by BC Hydro in F2014 not to reduce system storage energy content by anything less than 700 GWh will be reflected in an addition to the HDA.

50 BC Hydro states that the average system inflow energy equivalent changes over time for a number of reasons, including “increased consumptive withdrawals by other parties from BC Hydro reservoirs, reducing the water available for power generation” (Exhibit B-1-3, p.4-13).

50.1 Please provide a list of all other parties who withdraw water from BC Hydro reservoirs, the annual volumes licensed and actually withdrawn, and the consideration received by BC Hydro.

50.2 The withdrawal of water from Williston for hydraulic fracturing purposes by Talisman has recently been announced. Please provide i) the annual volume Talisman is permitted to withdraw, ii) its energy equivalent and iii) the price to be paid by Talisman in \$/MWh?

50.3 Are there any other parties who are seeking the ability to withdraw water from BC Hydro’s reservoirs in the test period?

Market Electricity Purchases and Domestic Surplus Sales

51 BC Hydro forecasts these as follows in the test period:

GWh	F2012	F2013	F2014	Total
Market Electricity Purchases	1610	1419	660	3689
Domestic Surplus Sales	109	874	1496	2479
Net	1501	545	(836)	1210

Source: Exhibit B-1-3, pp.4-19 & 4-23

51.1 Please provide the assumed prices for these transactions and the basis therefor.

IPP and Long-Term Commitments

Integrated Power Offer

52 On an April 2010, post on BC Hydro’s website, a BC Hydro employee is quoted “[W]e’ve identified 1,200 GWh/year of new generation and 200 GWh/year of energy efficiency from various pulp and paper operators, and we think we’ve opened the door to working interactively with our customers and viewing them as a major source of new energy”.

52.1 Please summarize purchases under the IPO during the test period by customer.

52.2 What is the term of these agreements?

52.3 Please reconcile the 1,200 GWh identified by BC Hydro with the forecast volume of purchases.

2006 Clean Power call

53.0 Please identify any projects awarded in the 2006 CFT that had not reached COD by the start of the test period and comment on their status.

2009 Clean Power Call

54.0 Please identify which of the EPAs awarded in the 2009 Clean Power Call BC Hydro expects to reach COD in the test period.

Variable Pay

55 The Panel's Report addresses BC Hydro's Variable Pay Program for Management and Professional staff, and notes that targets that are a percentage of base salary and normally in the range from 7.5% to 20% but can reach maximum up to 40% (Exhibit B-1-3, Appendix BB, p.59).

BC Hydro states that its standard labour rates are calculated based on forecasts of market increases, job classification, current service pension costs, variable pay, gainsharing, sick days, annual vacation, and flex day entitlements (Exhibit B-1-3, p.5-24).

55.1 Please confirm that the variable pay addressed by the Panel is the same that BC Hydro includes in its standard labour rates.

55.2 How much (in total \$) is included in labour costs in the test period for variable pay, by year and by affiliation?

55.3 Does BC Hydro consider it appropriate to include variable pay in the total cost of labour for rate setting purposes as opposed to paying it out based on results achieved, and thus have the Shareholder fund variable pay?

Salary Freeze

56 BC Hydro states that it has included in the test period revenue requirements \$34 million in savings relating to the salary freeze implemented for F2012 and other compensation and total rewards changes that have not yet been determined (Exhibit B-1-3, p.5-25).

56.1 Please provide a best estimate of an allocation of this amount by year and affiliation.

ENERGY PROCUREMENT

57 BC Hydro states that, in F2012 to F2014, Energy Procurement will continue to provide ongoing management of BC Hydro's power acquisition activities, which enable BC Hydro to

meet its domestic supply requirements, including the Bioenergy Phase 2 Call, Standing Offer Program, Integrated Power Offer, Feed-In Tariff and distributed generation initiatives (Exhibit B-1-3, p.5-146).

57.1 Please give details of the activities planned for the five initiatives listed above. How much power does BC Hydro forecast to acquire in this time period arising from these activities?

INFORMATION TECHNOLOGY EXPENDITURES

58 Reference: BC Hydro F09/10 Revenue Requirements Application – Table 5-7 “IT Capital Expenditures”

58.1 Please revise and update this table so that it extends back through fiscal 2003, showing forecast and actual expenditures, with a line devoted to each project or program (to the extent that expenditures are attributable to named projects or programs) – e.g., “Northstar CIS Project”, “Common Desktop Services”, etc. Please continue the table so that it extends forward through fiscal 2011.

EXPENDITURES FOR EXPORT

58 Reference: Exhibit B-1-3, p. 1-5:

BC Hydro does not anticipate significant expenditures and activities associated with export market development at this time, and BC Hydro is not seeking the recovery of these costs in rates in this application

58.1 Does BC Hydro believe that these costs are recoverable, by their nature, from ratepayers?

58.2 Is BC Hydro reserving or deferring the right to recover these costs, or is Hydro abandoning any such right or claim?

LOAD FORECAST AND SELF-SUFFICIENCY (reference New Appendix II)

58.1 Does BC Hydro anticipate that the government will provide relief against the definition of “self-sufficiency” or some other form of relief against the self-sufficiency requirements of the Clean Energy Act, during the test period?

58.2 Does the “load” indicated in Table II-1-4 on p. II-1-5 incorporate any increment beyond the actual forecast probable level of consumption toward the achievement of “self-sufficiency”?

58.3 If the answer is “yes,”

i Please confirm that this does not include any further increment toward “insurance”. If it does, please reconcile that answer with Appendix II page II-2-7 lines 7 through 10.

ii Please reproduce Table II-1-4 such adding an additional line, beneath “Load Before DSM” showing anticipated actual system load in normal water year before DSM.

58.4 What amount of progress toward “self-sufficiency” does BC Hydro say should properly be incorporated into load for each fiscal year of the test period, and on what basis?

EXPENDITURE SCHEDULES

59.1 Please produce a table showing all projects which have been the subject of Expenditure Schedule applications under section 44.2 of the Utilities Commission Act, showing:

- i. whether or not the application under s. 44.2 was approved by the Commission;
- ii. the amount applied for;
- iii. the amount approved by the Commission;
- iv. the anticipated completion date; and
- v. the actual or anticipated total project cost.

PROJECTED RATES AND DEFERRAL BALANCES

60 Reference: BC Hydro F2011 Revenue Requirements, Commission Order G-180-10, Appendix B (Negotiated Settlement Agreement), page 8, para. 9 (xv),

BC Hydro Commitments

“9. BC Hydro shall:

xv. engage with government regarding informing customers of future rate increases beyond those which are currently published. The 5 year rate increase forecast provided

in the response to JIESC IR 3.40.3 (Exhibit B-13-1), as amended to reflect this settlement and the assumption that the DARR will be set throughout the 5-year period in accordance with the amortization proposal in item #9.i., above, and the net bill impacts are shown in the following table.

	F2011	F2012	F2013	F2014	F2015
Projected Rate Increase	4.67%	17.44%	5.42%	9.72%	8.37%
Projected Deferral Account Rate Rider	3.53%	2.50%	2.20%	2.00%	1.70%
Projected Net Bill Impact	7.29%	16.27%	5.11%	9.51%	8.05%
Projected Cumulative Net Bill Impact	7%	25%	31%	44%	55%

Note 1: For F2011 the percentages are annualized weighted averages, reflecting the impact of the changes to the DARR and the F11 RRA settlement credit, as described in items #21 and #22 of this Settlement Agreement.

Note 2: For F2012 the projected annualized rate increase (17.44 per cent) represents the combined effect of a forecast 15.85 per cent rate increase effective April 1, 2011, and the termination of the F11 RRA settlement credit (item #22) also effective April 1, 2011.

Note 3: For F2012 to F2015 the projected DARR is based on the assumptions stated above and the assumption that there are no further increases or decreases in the Deferral Account balances other than due to DARR recoveries and interest”.

60.1 Please re-create this table covering fiscal years 2012 through 2017, on the basis of the best information currently available to BC Hydro, and based on the assumption that the present RRA is approved by the Commission in all respects. For the purposes of the table, assume that the DARR remains at the applied-for 2.5% throughout.

60.2 Please create another table covering the same period, showing BC Hydro’s best current estimate of the total balance of regulatory accounts as of the last day of each indicated fiscal year, assuming:

- water inflow and reservoir levels over the period similar to the average of the past five years;
- no relevant policy or legislative changes; and
- no extraordinary unforeseen circumstances, which would materially change the outcome.

Please also provide a commentary explaining the results.

60.3 Please create a third table covering the same period, showing BC Hydro’s best current estimate of the total balance of regulatory accounts as of the last day of each indicated fiscal year, assuming water inflow and reservoir levels equivalent to those experienced by BC Hydro in F2007 and F2008.

Please also provide a commentary explaining the results.

RATING AGENCY REPORTS

61 Reference: Exhibit B-1-3, Appendix BB p.109

The Panel states "[R]ecently, however, they [rating agencies] have noted the risk of ratepayer fatigue, and have cited cash flow deficits as a challenge in the medium-long term due to the capital plan and high dividends to the province.

61.1 Please provide a copy of the DBRS report referred to at footnote 5 of page 109, together with the most recent report of other major rating agencies that may cover BC.

61.2 Please provide a copy of the presentation by BC Hydro referred to on p.107 of Appendix BB.