BC Hydro F09/F10 Revenue Requirements Application

BC HYDRO UNDERTAKING No.76

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REQUESTOR: Commissioner O'Hara

QUESTION:

Please consider whether in light of current financial circumstances BC Hydro should re-consider its approach to the use of more recent forecast information and deferral accounts.

RESPONSE:

BC Hydro's approach in the July Evidentiary Update regarding the manner in which more recent information should be reflected in the requested rate relief can be summarized as follows: the application, and the requested rate relief, ought to be adjusted to account for more recent information that has a material and reasonably measureable effect on a revenue requirement item that is not currently subject to deferral.

This approach is also reflected in the October Evidentiary Update, which further amends the requested rate relief to account for new information regarding interest rate forecasts.

BC Hydro would not normally consider or support the filing of a further evidentiary update once the oral phase of a hearing has commenced. However, since the outset of the oral phase of the hearing a global financial crisis has emerged that has cast considerably more uncertainty over a number of BC Hydro's forecasts than would otherwise be the case. BC Hydro has also heard that customer-intervenors are opposed to the approach BC Hydro took to the July Evidentiary Update. In the result, the Commission Panel has invited BC Hydro to re-visit its approach, and amend, if necessary, BC Hydro's requested rate and regulatory account relief. Further, BC Hydro has, in response to questions put to its witnesses, undertaken to model the effects on its revenue requirements of a number of proposed changes to its forecasts, as follows:

- Load: an extrapolation of the difference between the load forecast in the July Evidentiary Update and the year-to-date load, through the balance of the test period.
- Wholesale energy (electricity and natural gas) prices: the most current forecasts of wholesale energy prices, and their effect on the revenue requirement.
- Interest rates: on the basis of the recent 0.5% decrease in the Bank of Canada overnight lending rate, further 0.5% and 0.25% decreases in short-term interest rates through the balance of the test period.
- Foreign exchange: on the assumption of a one cent change in the value of the Canadian dollar relative to the American dollar.

The changes to BC Hydro's revenue requirements from the October Evidentiary Update arising from each of the foregoing changes to BC Hydro's forecasts are shown in Table 1 below. It is important to note that the changes to the revenue requirements, as presented, are not cumulative. That is, they are shown as separate items, holding all other things equal, and because of significant interaction and flow-through effects may not be simply added together.

Also shown in Table 1 are the effects on BC Hydro's revenue requirements of the following (also not cumulative, in the sense described above):

- Trade Income: BC Hydro's current forecast of F2009 Trade Income has increased from $159.4 million to $190 million; its forecast of F2010 Trade Income remains unchanged at $154.8 million.
- Non-current post-employment benefits expense: As a result in part of recent turmoil in securities markets BC Hydro now forecasts its F2010 non-current post-employment benefits expense to be a $71 million expense item, compared to a $9.4 million revenue item in the July and October Evidentiary Updates, a negative change of $80 million.

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Table 1 - Changes from October Evidentiary Update, F2009 and F2010

($ million)	F2009	F2010
Reduction in Energy Sales		
Reduction in Energy Sales (GWh)	1,217	1,473
Reduction in Market Purchases (including losses) (GWh)	1,340	1,620
Reduction in Market Purchases ($ million)	89.4	111.3
Reduction in Domestic Revenues ($ million)	50.1	68.1
Reduction in Market Energy Prices		
Reduction in Market Electricity Purchases	21.7	38.0
Reduction in Natural Gas Costs for ICP	27.1	18.7
Reduction in Natural Gas Costs for Thermal Generation	5.7	4.0
Increase in Trade Income	30.6	0.0
Increase in Non-Current Post-Employment Benefits Costs	0.0	80.0
Reduction in Short-Term Interest Rates		
Reduction in Finance Charges From 0.25% Reduction	3.8	6.0
Reduction in Finance Charges From 0.50% Reduction	7.7	11.9
Impact of One-Cent Reduction in Canadian Dollar		
Increase in Cost of Energy	3.9	4.2
Increase in Finance Charges	0.7	0.7
Increase in Trade Income	(3.3)	(3.8)

With respect to the foregoing items, BC Hydro notes the following:

Load: 1. BC Hydro has already proposed in its application that differences between actual and forecast cost of energy arising from differences between actual and forecast load be captured in the cost of energy Deferral Accounts (they are not currently captured in any deferral account mechanism). This would have the effect, if accepted, of deferring all cost and revenue implications of actual load being different from forecast load. 2. On the basis of an extrapolation of current load variances into the balance of the test period it is apparent that actual load, driven largely by significant decreases in industrial and commercial demand, will be materially lower than the forecast load in the July Evidentiary Update (where the load forecast was last updated).

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Wholesale energy prices: 1. The cost of energy Deferral Accounts already defer all cost of energy impacts associated with differences between forecast and actual wholesale energy prices. 2. The effect of the current financial crisis on wholesale energy prices is uncertain, but in any event there is more uncertainty associated with forecasts of such prices than would otherwise be the case. Nevertheless, the current forecasts of wholesale energy prices have decreased from those included in the July Evidentiary Update and are now close to the original forecasts included in the application of February 22.

Interest rates: 1. BC Hydro did not apply for approval of a mechanism to defer differences between forecast and actual finance charges arising from differences between forecast and actual interest rates. However, at least one intervenor has expressly asked for approval of such a mechanism, and BC Hydro witnesses have said they are not opposed to the idea. 2. The hypothetical 0.25% and 0.5% decreases in interest rates shown above are not forecasts of interest rates, although the immediate effect of the financial crisis has been a reduction in the overnight interest rate. It is not clear that such reductions will be fully realized in interest rates available to commercial borrowers, nor that they will be sustained through the test period.

Foreign exchange: 1. Foreign exchange risk is largely deferred through existing deferral account mechanisms. 2. The hypothetical changes in the value of the Canadian dollar shown above are not forecasts of such changes, although the immediate effect of the financial crisis has been a decline in the value of the Canadian dollar relative to the US dollar. As with interest rates, it is not clear that the decrease in the value of the Canadian dollar will be sustained through the test period.

Trade Income: 1. Variances between forecast and actual Trade Income are fully deferred through the existing Trade Income Deferral Account, subject to the $200 million cap and $0 floor. 2. Again, the effect of the financial crisis on Trade Income is unclear, but it is clear that there is more uncertainty associated with Trade Income forecasts than would otherwise be the case.

Non-current post-employment benefits expense: 1. Variations between forecast and actual non-current post-employment benefits expense (which includes non-current pension expense) are neither deferred nor the subject of any current application for approval of a deferral mechanism. 2. Non-current post-employment benefits expense is significantly driven by the market value of securities; the market value of securities across virtually all asset classes has plunged in recent weeks; and while security markets remain extremely volatile, there is no indication that their values will return to levels approaching what they were at the time of the July Evidentiary Update (the last time this forecast was updated).

In light of the foregoing, BC Hydro’s proposes as follows:

Load: BC Hydro proposes to both reflect the effect of the extrapolated reduction in load shown above in the revenue requirement (adjusting the requested rate relief accordingly), and maintain its request for changes to the cost of energy Deferral Accounts to allow for the deferral of variances in cost of energy arising from variances in load.

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Wholesale energy prices: BC Hydro proposes to reflect the more recent forecasts of wholesale energy prices shown above in its revenue requirements (adjusting the requested rate relief accordingly), and does not propose any new deferral account mechanisms to account for wholesale energy price risk.

Interest rates: BC Hydro does not propose to reflect either of the hypothetical interest rate scenarios shown above in its revenue requirements, but now requests approval for a new deferral mechanism that would defer variances in finance charges arising from variations in interest rates.

Foreign exchange: BC Hydro does not propose to reflect the changes to its forecasts that would be consequential upon any hypothetical foreign exchange scenarios, nor does it propose any new deferral account mechanisms to further address foreign exchange risk.

Trade Income: BC Hydro proposes to reflect its more recent forecasts of Trade Income in its revenue requirements (adjusting the requested rate relief accordingly), but does not propose any new deferral account mechanisms to further address trade revenue volatility.

Non-current post-employment benefits expense: It is apparent that the risk (likelihood and consequence) of material under-forecast of non-current post-employment benefits expense is very significant. It is also apparent that the potential rate impact of a material over-forecast of non-current post-employment benefits expense is also very significant. Accordingly, BC Hydro does not propose to reflect its more recent forecast of non-current post-employment benefits expense in its revenue requirements, but does now apply for a new deferral mechanism that would defer differences between forecast and actual F2010 non-current post-employment benefits expense (the F2010 forecast is shown in both the July Evidentiary Update and the October Evidentiary Update). If the Commission is disinclined to allow the proposed deferral mechanism, BC Hydro seeks, in the alternative, to have its current forecast of a F2010 $71 million expense reflected in its revenue requirements (with consequential adjustment to the rate relief). Actual F2009 non-current post-employment benefits expense has already been accrued based on final performance to the end of F2008, and so this mechanism would be applicable to F2010 only.

As is apparent from the foregoing, the new proposal is in part a change from the approach taken in the July Evidentiary Update. This change is consistent with what BC Hydro heard its interveners say about the July Evidentiary Update approach; moreover, because current wholesale energy prices are now closer to the forecasts in the February 22 application, the change in approach mitigates the effect that the July Evidentiary Update forecasts would otherwise have had on the rate relief sought by BC Hydro.

The net consequence of the foregoing would be rate increases in F2009 of 3.75% and in F2010 of 10.17%.

BC Hydro believes the foregoing proposal appropriately balances the interests of BC Hydro’s ratepayers and its right to have the opportunity to earn its allowed return on equity.

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Note that BC Hydro proposes the foregoing only in light of the extraordinary financial situation of the last few weeks and, even if approved, reserves its right to apply and argue for a different approach in subsequent revenue requirement proceedings.

For clarity, the non-current post-employment benefits expense that would be subject to deferral treatment would be based on generally accepted accounting principles and include:

- interest expense on fund liabilities;
- interest income on fund assets;
- amortization of transitional assets or liabilities;
- amortization of past service costs; and
- amortization of actuarial gains and losses,

and would exclude any current service costs.

For clarity, the finance charges that would be deferred would be equal to the difference between the forecast and actual weighted average cost of debt for a fiscal year multiplied by the forecast mid-year net debt for that fiscal year.

Rather than establish separate regulatory accounts to capture finance charge and non-current post-employment benefits expense variations, BC Hydro proposes to amend the Non-Heritage Deferral Account to achieve that objective.

Revised versions of Tables 2 and 3 from the application that reflect the foregoing are shown below.

The specific orders that BC Hydro seeks to effect the foregoing are as follows:

1. A final order allowing across the board rate increases of 3.75% in F2009 and 10.17% in F2010.

2. An order amending the Non-Heritage Deferral Account to include variances in non-current post-employment benefits expense and finance charges, as described above.

3. For the purpose of calculating variances in items subject to deferral, determinations as shown in columns 2 and 5 of Table 3.

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Table 2 - Summary of Revenue Requirements, F2009 and F2010

Section	($ million)	F2009 Feb 20 Plan	F2009 Oct 17 Update	Increase	F2010 Feb 20 Plan	F2010 Oct 17 Update	Increase
		1	2	3 = 2 - 1	4	5	6 = 5 - 4
5.1	**Domestic Energy Costs**	1,252.4	1,142.7	(109.7)	1,430.8	1,231.4	(199.4)
5.2	**Operating Costs**						
	Current Operating Costs	616.2	615.8	(0.4)	660.5	656.0	(4.5)
	DSM & Other Regulatory Accounts	160.5	184.7	24.2	141.9	177.1	35.2
5.3	**Taxes**	166.7	168.4	1.7	177.4	178.1	0.6
5.4	**Amortization**	393.7	390.7	(3.0)	424.9	422.5	(2.4)
5.5	**Finance Charges**	497.4	447.7	(49.7)	567.3	497.5	(69.8)
5.6	**Return on Equity**	357.6	358.9	1.3	401.7	406.4	4.7
5.7	**Non-Tariff Revenue**	(39.7)	(40.9)	(1.2)	(38.4)	(39.9)	(1.5)
5.8	**Inter-Segment Revenue**	(77.1)	(56.6)	20.5	(110.1)	(60.5)	49.6
5.9	**Regulatory Account Transfers**	(111.1)	(134.1)	(23.1)	(116.2)	(142.5)	(26.3)
5.10	**Subsidiary Net Income**	(136.7)	(191.7)	(55.0)	(158.0)	(156.7)	1.3
	Total	3,080.0	2,885.6	(194.5)	3,381.7	3,169.3	(212.4)
3.2	**Revenue at April 1, 2008 Rates**	3,080.0	2,962.8	(117.2)	3,127.8	2,956.8	(171.1)
	Remaining Revenue Shortfall	0.0	(77.3)	(77.3)	253.9	212.6	(41.3)
	Annualized Rate Increase	6.56%	3.75%	-2.80%	8.21%	10.17%	1.96%

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Table 3 - Forecasts of Costs and Revenues Subject to Deferral, F2009 and F2010

($ million)	F2009 Feb 20 Plan	F2009 Oct 17 Update	Increase	F2010 Feb 20 Plan	F2010 Oct 17 Update	Increase
	1	2	3 = 2 - 1	4	5	6 = 5 - 4
Heritage Payment Obligation (variances captured in HDA)	411.7	407.5	(4.2)	491.9	438.1	(53.8)
Non-Heritage COE Subject to Deferral (variances captured in NHDA)	707.4	628.0	(79.4)	781.7	688.5	(93.2)
Trade Income (variances captured in TIDA)	135.1	190.0	54.9	156.1	154.8	(1.3)
BCTC Costs (variances captured in BCTCDA)						
Transmission Asset Maintenance Fee	90.5	90.9	0.4	92.7	92.4	(0.3)
GRTA Asset Management Fee	8.3	8.3	0.0	8.2	8.2	0.0
SDA Asset Management Fee	15.0	15.0	0.0	14.7	14.7	0.0
Net NITS and PTP Charges	41.7	43.2	1.5	35.5	37.5	2.0
External PTP Revenues	(8.2)	(8.4)	(0.2)	(7.6)	(8.3)	(0.7)
Revenues	2,967.6	2,856.1	(111.4)	3,317.5	3,137.0	(180.5)
Interest Rates						
Weighted Average Cost of Debt	6.78%	6.20%	-0.58%	6.90%	6.05%	-0.85%
Mid-Year Net Debt	8,104.7	8,107.1	2.4	9,093.4	9,199.0	105.6
Non-Current Post-Employment Benefits Cost	N/A	N/A	N/A	(9.4)	(9.4)	0.0