OCCASIONAL PAPER No. 75 BC HYDRO

THE BC GOVERNMENT SHOULD REDUCE BC HYDRO'S EXCESS PROFITS

Recently, Premier John Horgan said that promoting economic recovery will be the priority of the government's April budget.[1] One simple measure would significantly assist consumers and businesses to inject new capital into the economy, and would also complete the reform of the accounting at BC Hydro. The government should order BC Hydro to end the unjustified high profits on the sale of electricity to domestic users.

For Years the Government Has Set BC Hydro's Profit Targets

For the last decade, the government has required the BC Utilities Commission (BCUC) to approve BC Hydro's annual prices to ensure unjustifiably high profits (net income). Beginning in 2008, the government has been manipulating BC Hydro's profit target by ordering the public's electric utility to use an inflated equity base (the "deemed" equity) and a high return on equity percentage to support the high profits.

A 2008 cabinet order required that the equity used to calculate the net income target was an arbitrary number, rather than the actual equity derived from subtracting liabilities from assets. This action, coming during the 2008 economic downturn, was designed to protect the government's net income stream from BC Hydro.[2] Other cabinet orders required that the BCUC abandon its attempt to set the net income based on a lower benchmark, and eventually (2012) resulted in the government ordering the nominally independent regulator to agree to annual rate changes set by the government.

From 2012 to 2018, the government set the annual net income targets, and in recent years the percentage was expressed as a fixed dollar amount of $712 million.

Ending (Almost) the Government's Manipulation of BC Hydro's Finances

The previous government utilized three interrelated techniques to manipulate BC Hydro's finances to achieve high net income and lower than required rate increases. These actions included (a) using non-standard ("prescribed") accounting which did not require an independent regulator to oversee the regulatory accounts, (b) a high net income target which assumed much greater risk than actually existed because of (c) the

[1] https://toronto.citynews.ca/2020/12/31/horgan-says-b-c-will-focus-on-pandemic-economic-recovery-health-reform-in-2021/

[2] National public sector accounting standards required that the net income from "government business enterprises" be counted as revenue to the government, even if no cash (dividend) is transferred.

over-reliance on deferral (regulatory) accounts which practically eliminated the risk to the shareholder's profit target by transferring cost and revenue variances to future generations of ratepayers.

In 2017, BC Auditor General Carol Bellringer qualified the government's 2016/17 financial statements, in part because of the non-standard accounting at BC Hydro (including the lack of an independent regulator to oversee the deferral accounts). Within a year of taking office the NDP government acknowledged that the government's manipulation of BC Hydro's finances needed to be reformed.[3]

The government rescinded the orders that hamstrung the BCUC rate-setting ability. It ended the dubious Rate Smoothing account and ordered BC Hydro to adopt standard accounting principles. These changes were enough for auditor general to rescind her qualification of the government's books.

However, despite these improvements the government did not allow the BCUC to change the net income target for 2019 and 2020. In a February 2019 cabinet order the BCUC was required to set the rates for these two years to ensure that the $712 million net income target was achieved.[4] Clearly, the minister of finance was not prepared to accept a lower net income target for BC Hydro in her revenue calculations for 2019/20 and 2020/21, even though no cash dividend was involved.[5]

BC Hydro Rates for 2021/22 Assume a High Profit

Establishing the net income target is central to the calculation of what are considered as just and reasonable electricity rates charged to domestic customers. For over a decade the BCUC has been required to abide by cabinet directives which mandated the net income target. With the lapsing of the current directive, the BCUC has known it would have the authority to approve BC Hydro's ROE[6] for 2021/22, but has not initiated any action to adjust the current target.

In its rate request for the coming year BC Hydro has again requested a net income target of $712 million, based on an arbitrary "deemed" equity of $7.13 billion and an ROE

---

[3] https://www.bcpolicyperspectives.com/media/attachments/view/doc/commentary_deferral_reversal_31_august_2018/pdf/commentary_deferral_reversal_31_august_2018.pdf

[4] OIC 51/19 of February 19,2019.

[5] Many in the public and the media (and some politicians) are confused by the recording of the net income of self-financing Crowns as government revenue. The net income from BC Hydro and ICBC does not increase or decrease the government's spending ability: https://www.bcpolicyperspectives.com/media/attachments/view/doc/fact_check_icbc_17_february_2020/pdf/fact_check_icbc_17_february_2020.pdf

[6] The government's order to set rates to generate $712 million in net income expires on 31 March 2021.

percentage of 10.04%.[7] Because the net income has been a fixed dollar amount in recent years, and the equity has increased, the ROE percentage has been declining.

The Net Income Target Should Be Based on the Actual Equity

Ending the manipulation of the net income target was a reform that the current government was unwilling to undertake. But it should now lower the target to allow the calculation to conform to accounting and rate-setting norms, and to provide a financial stimulus to consumers and businesses to stimulate economic activity.

So, what level of net income would be appropriate? First, the concept of a "deemed" equity amount should be replaced with using the actual equity. This change is long overdue, and was recommended by the 2011 senior deputy minister review of BC Hydro: "BC Hydro is currently in a position where their actual equity (20%) is lower than their deemed equity (30%). This misalignment results in BC Hydro earning a larger return on their assets than they actually have in place. This variance is passed on to ratepayers."[8]

Table 1 shows a large difference between the artificial "deemed" equity and the actual equity, particularly for 2018/19 (when the Rate Smoothing deferral account was closed) and for 2019/20.

Table 1 – DEEMED AND ACTUAL EQUITY ($=million)

	2017/18	2018/19	2019/20	2020/21	B2021/22
30% Deemed Equity	6,006	6,839	6,904	7,043	7,134
Actual Equity	5,446	4,946	5,654	6,346	7,058
Difference	560	1,893	1,250	697	76

Source: BC Hydro F2022 RRA, Appendix A, p. 59; 2020/21 is forecasted. https://www.bcuc.com/Documents/Proceedings/2020/DOC_60301_B-2-2-BCH-F22-RRA-Appendices.pdf pdf 82/650.

The Fair Return on Equity Depends on the Degree of Risk

The Cost of Service method of calculating a fair and just price provides the utility with a reasonable opportunity to recover its prudently incurred costs including a fair rate of return. This rate of return, or the return on equity, will vary depending on the degree of risk involved. The lower the risk the lower the ROE factor.

Some years ago, the BCUC decided that the 8.75% ROE allowed for Terasen Gas, now FortisBC Energy, would apply to BC Hydro. This percentage assumed that 38.5% of the

[7] https://www.bcuc.com/Documents/Proceedings/2020/DOC_60301_B-2-2-BCH-F22-RRA-Appendices.pdf Appendix A, Schedule 9.0, p. 59, (pdf 82/650).
[8] https://www.ceaa-acee.gc.ca/050/documents/p63919/97006E.pdf p. 97.

capital structure was equity and 61.5% was debt. This decision was overruled by the government which ordered a much higher (11.84%) ROE.[9] The 11.84% ROE remained in place until 2017/18, when it was replaced with a fixed dollar amount of $712 million.

Table 2 shows the planned and actual ROE for the last five years.

Table 2 –RETURN ON EQUITY (ROE) AND NET INCOME ($=million)

	2015/16	2016/17	2017/18	2018/19*	2019/20
Budget ROE %	11.84	11.84	11.84	11.60	11.33
Actual ROE %	12.26	11.92	11.57	(6.67)	10.26
Net Income--Budget	651.9	684.7	698.4	712.4	712.0
Net Income--Actual	655.0	683.5	684.0	(428.2)	704.9

Source: BC Hydro RRA F17 to F19 and RRA F22 Appendix A, Schedule 9.0

Note: 2018/19 loss reflects the closure of the Rate Smoothing deferral account.

Regulatory (Deferral) Accounts Practically Eliminate Risk

Of interest from the results of the last five years (excluding the 2018/19 anomaly) is how closely the actual net income matched the budget target. This is explained by the effect of the large number of deferral accounts have on the net income and the equity. By deferring operating cost overruns and revenue (load) shortfalls to regulatory accounts achieving the shareholder's net income target is practically guaranteed.

Deferring variances in non-cash items, such as the pension liability or the losses on the future interest rate hedging program, protects against major losses in equity on the balance sheet.

Table 3 shows the ratio of the net regulatory asset balance to total equity for the last five years. The large number of deferral accounts smooths variances in rates by transferring cost overruns and revenue shortfalls from the shareholder to future ratepayers.[10] The extensive use of deferrals eliminates practically all risk to the shareholder, as these debits (assets to BC Hydro) must be paid by future customers rather than lowering the net income or the equity.

[9] https://ojs.library.ubc.ca/index.php/bcstudies/article/view/187787/186354 p. 25.

[10] In the latest jargon this is called "de-coupling."

Table 3 –NET REGULATORY ASSETS TO EQUITY ($=million)

	2015/16	2016/17	2017/18	2018/19	2019/20
Reported Equity	4,500	4,909	5,446	4,946	5,654
Net Regulatory Assets	5,908	5,597	5,204	4,257	5,005
Ratio	131.3	114.0	95.6	86.1	88.5

Source: BC Hydro annual reports.

BC Hydro's extensive reliance on deferral accounts is unique. Table 4 shows the ratio of the net regulatory asset balance to total equity for the last two fiscal years and year-to-date 30 September for FortisBC Electric, Manitoba Hydro and Hydro Quebec.

Table 4 – RATIOS OF NET REGULATORY ASSETS TO EQUITY

	2018/19	2019/20	Sept 2020
BC Hydro	86.1	88.5	100.8
FortisBC	42.0	45.3	44.4
Manitoba Hydro	28.9	30.1	27.9
Hydro Quebec	14.8	21.5	19.8

Source: Company annual and quarterly reports.

Clearly, BC Hydro is an outlier with the high ratio of net regulatory assets to equity, and during the last 18 months the ratio has increased (mainly because lower interest rates have worsened the already high pension liability).

An Appropriate ROE

BC Hydro has argued (and the BCUC has agreed) that factors beyond management control, such as changes in interest rates, electricity sales, water storage, economic changes, and most other short and medium-term influences on the financial result, should be deferred. This insulates the level of the net income from these influences.

Given that the large variety of deferral accounts have practically eliminated any risk to the achievement of the annual net income, what ROE is appropriate to mirror a reasonable return on invested capital if BC Hydro was an investor-owned utility?[11]

The original BCUC approved ROE for BC Hydro of 8.75% was developed based on the ROE approved for FortisBC in 2012, assuming a 38.5% common equity component of the capital structure. As noted earlier, the BC government rejected this limit and ordered the BCUC to set the rates to generate a higher return.[12]

[11] For a useful review of how the ROE is calculated see https://www.bcuc.com/Documents/Arguments/2016/DOC_46042_04-03-2016_FEI_Final-Submission.pdf

[12] At that time a higher net income (distributable surplus) generated a higher dividend.

Two important differences are applicable today: interest rates have substantially declined and BC Hydro's ratio of net regulatory assets to equity is much higher than that of FortisBC.[13] For these reasons the 8.75% originally adopted as the benchmark for C Hydro is too generous.

What sort of return would a prudent investor expect in a low risk environment such as that of BC Hydro? For guidance, the BC Investment Corporation has forecast a mid-term bond yield of 2.1% on a 15-year term.[14] Assuming an investor would expect a premium on the 15-year term for low-risk bonds, I have assumed a 5% ROE for the purposes of this review. This should be more than adequate compensation for the ultra-low risk investment environment applicable at BC Hydro.

A Revised Net Income Target

Assuming equity of $6.4 billion as of 1 April 2021, a 5% ROE would produce a net income target of approximately $320 million. This is approximately $390 million less than the amount BC Hydro is requesting for the coming year, and amounts to a 6% rate reduction.

If the $320 million reduction were divided by major customer classes based on the share of electricity consumed in 2019/20,[15] the savings would be:

Residential	@ 34.5% = $ 110.4 million	or about $ 60/account
Lt. Ind./Commercial	@ 35.9% = $ 114.9 million	or about $ 535/account
Large Industrial	@ 25.7% = $ 82.2 million	or about $ 415,000/account
Other	@ 3.9% = $ 12.5 million	

Stimulating Economic Activity

The current financing model for BC Hydro still retains some of the features employed by the previous Liberal government to keep rate increases below the growth in costs while generating high profits (and until recently large dividends). The current government has required our power utility to adopt standard accounting practices and most of the oversight authority has been restored to the BCUC. The government should complete the reforms by ordering BC Hydro to reduce its planned net income to a more realistic level, thereby stimulating economic activity on the part of consumers and producers.

[13] A third consideration is that the government no longer expects a dividend (which had to be borrowed) from BC Hydro. The formula to determine the dividend encouraged a high net income.
[14] https://www.bcuc.com/Documents/Proceedings/2020/DOC_60191_B-1-ICBC-2021-Revenue-Requirements-Application.pdf p. 5.
[15] https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/accountability-reports/financial-reports/annual-reports/BCHydro-Annual-Service-Plan-Report-2019-2020.pdf pdf 119/120.

Alternatively, the savings could be redirected to a special fund in anticipation of paying down the escalating debt for the Site C project[16] or the massive losses from hedging future interest rates.[17]

 https://www.bcpolicyperspectives.com/

The writer is a retired senior BC government public servant whose paper describing the BC government's manipulation of the finances of BC Hydro from 2008 to 2014 was published by *BC Studies* in November 2016. *BC Studies* published his paper on the 40-year financial history of ICBC in 2013. He was an intervener in the BC Utilities Commission's recent reviews of ICBC's and B.C. Hydro's rate requests.

16 https://www.bcpolicyperspectives.com/media/attachments/view/doc/commentary_cost_of_site_c_1_november_2020/pdf/commentary_cost_of_site_c_1_november_2020.pdf

17 https://www.bcpolicyperspectives.com/media/attachments/view/doc/commentary_bc_hydro_hedging_30_december_2020_2/pdf/commentary_bc_hydro_hedging_30_december_2020_2.pdf