**OCCASIONAL PAPER No. 25 BC HYDRO**

**HOW REALISTIC IS BC HYDRO'S 10-YEAR FINANCIAL PLAN?**

When the government announced the 10-year financial plan for BC Hydro in November 2013, it set the electricity rate increases for 2014 and 2015, as it had done for 2012 and 2013. The government has now allowed the BC Utilities Commission to review the public utility's rates plan for 2016 to 2018, although the maximum increases are capped at 4%, 3.5% and 3.0% respectively.

For the remaining five years (2019 to 2013), BC Hydro is using a "target" annual rate increase of 2.6%.[1]

Is this rate increase target realistic?

RATE SMOOTHING OR RATE SUPPRESSION?

The 10-year plan relies on a cabinet-ordered Rate Smoothing Regulatory Account (RSRA) to record future revenue; which is the difference between the expected revenue generated by the government's capped rate increases, and the revenue that BC Hydro forecasts as being required to cover costs and produce the government-mandated net income.[2]

The RSRA is the fulcrum for the 10-year plan, as it is being used to record future unbilled revenue to make up the revenue lost by the government's rate suppression policy.

The government justified the recording of future unbilled revenue as a method to smooth the growth in electricity rates over a longer period. Table 1 shows the government approved and capped rate increases from 2014 to 2018, and what the rate increases would have been without the RSRA.

TABLE 1 – RATE CHANGE INCLUDING AND EXCLUDING THE RSRA (Percent)

| | **2014** | **2015** | **2016** | **2017** | **2018** | **CUM Δ** |
|---|---|---|---|---|---|---|
| **APPROVED** | 9.0 | 6.0 | 4.0 | 3.5 | 3.0 | 28.0 |
| **RSRA** | 3.9 | 2.8 | 6.2 | 7.0 | 9.5 | 32.8 |
| **COMBINED** | 12.9 | 10.8 | 10.2 | 10.5 | 12.5 | 63.7 |

Source: BCUC, BC Hydro F17-F19 RRA, Table 7-2. For F17 a 1% rate increase generates $42.9 million, and this factor was used in each year to calculate the RSRA equivalent percentage increase.

It would appear that the annual percent change in rates would have been smoother during the five years without the benefit of the RSRA. One is left to conclude that the purpose of the recording of future unbilled revenue was designed more to suppress the rate increase, rather than to smooth the impact.

[1] See http://www.bcuc.com/Documents/Proceedings/2016/DOC_46852_B-1-1_BCH_RevenueRequirements-App.pdf p. 1-17.

[2] A July 2016 cabinet order set BC Hydro's net income for the current and the next two fiscal years, see OIC 590/16.

THE GROWTH IN THE RSRA BALANCE

In its March 2014 rate request, BC Hydro provided a 10-year plan for the balances in its various regulatory and deferral accounts.[3]

Compared to the 2014 plan, the revised plan filed in July 2016 forecasts that by 2018/19 the RSRA accounting device will have added $1.08 billion to BC Hydro's debt, growing to $1.59 billion by 2020/21.

The 2016 forecast shows that much more future unbilled revenue will be deferred in the RSRA during the next five years than was anticipated in the 2014 forecast.

TABLE 2-CHANGE IN FORECAST RSRA NET BALANCE 2016 TO 2014 ($=million)

| | F2017 | F2018 | F2019 | F2020 | F2021 | F2022 | F2023 | F2023 |
|---|---|---|---|---|---|---|---|---|
| **2016** | 497 | 783 | 1,083 | 1,491 | 1.589 | 1,286 | 733 | nil |
| **2014** | 491 | 663 | 703 | 775 | 785 | 686 | 425 | nil |
| **DIFFERENCE** | 6 | 120 | 380 | 716 | 804 | 600 | 308 | nil |

Sources: BCUC, BC Hydro RRA F17-F19, Table 7-2; and BCUC, BC Hydro F14-F15, Appendix H, Table 6.

The 2016 forecast demonstrates that BC Hydro is more reliant on the RSRA to provide enough revenue to meet its annual net income (and dividend) targets, because the more recent forecasts for domestic electricity sales are lower than the sales forecast in 2014. To meet its net income target, BC Hydro has deferred more future revenue to the RSRA.

WHAT RATE INCREASES MAY BE REQUIRED TO ELIMINATE THE RSRA?

Notwithstanding the peak of the RSRA deferral increasing by some $800 million (2020/21), BC Hydro states that it is "on track" to meet the financial targets in the 2016 revised 10-year financial plan, including the elimination of the RSRA net balance by March 2023. It did not request a recovery mechanism to eliminate the RSRA balance in its F17-F19 rate request, but stated that a mechanism would be proposed in a future rate application.

> BC Hydro is not requesting approval of a recovery mechanism for the Rate Smoothing Regulatory Account in this Application. In a future revenue requirements application, BC Hydro will propose to recover the balance of the Rate Smoothing Regulatory Account in rates. BC Hydro's proposal will enable uniform forecast rate increases over the fiscal 2020 to fiscal 2024 period, and will ensure that the recovery of the Rate Smoothing Regulatory Account is such that there is zero balance in this account by the end of fiscal 2024 as these are key requirements of the 2013 10 Year Rates Plan.[4]

The RSRA is essentially a plug in the 10-year plan to lower the required rate increases from 2014 to 2020. By using a target annual rate increase of 2.6% for the last five years of the plan, BC Hydro is being less

[3] See BCUC, BC Hydro F14-F15 RRA, Appendix H.
[4] BCUC, BC Hydro F17-F19 RRA, IR1, RM 3.2.

than candid about the cost to future customers that will be required to eliminate the RSRA balance by March 31, 2023.

One simple scenario (Appendix I) shows that rates would need to increase by approximately 7% in 2021, 6% in 2022 and a further 4% in 2023 to eliminate the RSRA balance by year-end 2023/24 as proposed in the most recent 10-year plan. This assumes that all other cost increases are matched by BC Hydro's 2.6% target increase, which is highly unlikely given the anticipated increase in the debt service cost.

A second option (Appendix II) uses the 5% rate surcharge (the Deferral Account Rate Rider), approved to reduce the balance in the cost of energy deferral accounts, to help eliminate the RSRA balance by 2023/24. In this scenario, the rates would increase by about 2% in 2021, 6% in 2022 and 4% in 2023. Again, this scenario assumes that other cost increases are covered in the 2.6% target rate increases.

## ARE BC HYDRO'S FUTURE SALES ESTIMATES OPTIMISTIC?

Despite a growing population, as reflected in the increase in customer accounts,[5] total domestic electricity sales during the last four years have been flat, caused by a 7.8% decline in residential demand. BC Hydro's three-year rate request optimistically assumes that residential sales will increase by 5.3% by 2018/19.[6]

For the 2019 to 2023 years, BC Hydro is planning on domestic demand increasing by about 15%, with one third of the growth due to LNG sales.[7] Given BC Hydro's track record of over-estimating the demand for electricity sales, the demand forecasts would appear to be optimistic.

As noted above, the increasing costs, particularly the growing costs of interest and amortization (debt service) will likely continue to pressure rates to rise faster than the target increases.

## FALSE SIGNALS

By using an annual 2.6% rate increase, and optimistic load demand forecasts for the 2019/20 to 2023/24 period, BC Hydro is giving a false impression that the pressure in its rates is manageable. Unfortunately, these "target" increases may be taken at face value by concerned parties as an achievable rate limit for the balance of the 10-year plan.

The Association of Major Power Consumers (AMPC) has stated as much in its February 27, 2017 filing with the BC Utilities Commission.[8] After warning that the continuing cost of electricity may lead to the closure of some industrial operations (demand destruction), the AMPC urges that BC Hydro be held to the 2.6% annual rate increase target:

> To be clear, if BC Hydro finds it has insufficient revenues to meet its infrastructure investment and operational needs as it approaches F2020, the Commission should insist

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[5] From 2011/12 to 2015/16 residential accounts increased by 4.8% and commercial accounts increased by 3.9%, see p. 100 in https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/accountability-reports/financial-reports/annual-reports/bchydro-2015-16-annual-service-plan-report.pdf

[6] BCUC, BC Hydro F17 to F19 RRA, IR 1, BCUC 4.4.

[7] Sales of 57,688 GWh in F2019 rising to 66,546 GWh in F2024; see Ibid., IR1, BCUC 11.1, Table 3-8.

[8] http://www.bcuc.com/Documents/Proceedings/2017/DOC_48816_C9-7_AMPC-Evidence.pdf The AMPC represents companies that purchase about 20% of BC Hydro's total domestic sales (p. 3).

> on limiting rate increases to 2.6% as currently planned, to reduce the risk of industrial demand destruction. This may imply options such as requiring BC Hydro find further efficiencies beyond the good work it has already done, relying on the rate-smoothing account longer than anticipated, or reducing revenues directed to the shareholder in the form of dividend, water rentals, debt costs, or taxes.[9]

The AMPC is warning the government that the growing costs at BC Hydro may, if fully passed on to the consumers, lead to a reduction in production from its member companies. If the growing costs must be apportioned over a smaller number of operations then the costs will rise even faster, or there will be a greater reliance on financial engineering devices such as the RSRA.

The deferral accounts are a temporary fix, because the deferred cost and revenue variances are added to BC Hydro's debt. The acceleration in the government's guaranteed debt, in turn, will attract even closer scrutiny from the bond rating agencies, as evidenced recently the Moody's Financial report.[10]

 http://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 has been an intervener in the BC Utilities Commission's recent reviews of ICBC's rate requests, and is currently an intervener in the Commission's current reviews of ICBC and BC Hydro rate requests.

## APPENDIX I

The closing balances are from BC Hydro's F17-F19 RRA, Table 7-2. The calculations assume that a 1% rate increase produces approximately $43 million in additional revenue.

ANNUAL RATE INCRESE REQUIRED TO ELIMINATE THE RSRA ($=millions)

| | | 2021/22 | 2022/23 | 2023/24 |
|---|---|---|---|---|
| | Balance start of year | 1,589 | 1,286 | 733 |
| | 2021/22 Rate increase of 7.2% | (303) | (303) | (303) |
| | 2022/23 Rate Increase of 5.8% | ---- | (250) | (250) |
| | 2023/24 Rate Increase of 4.2% | ---- | ---- | (180) |
| | Balance end of year | 1,286 | 733 | nil |

[9] Ibid., p. 12.
[10] http://vancouversun.com/opinion/columnists/vaughn-palmer-credit-report-sounds-alarm-over-bc-hydro-debt

APPENDIX II

This scenario uses the full 5% DARR to reduce the RSRA balance, thereby requiring lower rate increase required in April 2021.

ANNUAL RATE INCRESE REQUIRED TO ELIMINATE THE RSRA ($=millions)

| | | 2021/22 | 2022/23 | 2023/24 |
|---|---|---|---|---|
| | Balance start of year | 1,589 | 1,286 | 733 |
| | DARR Effect | (230) | (235) | (240) |
| | 2021/22 Rate increase of 1.7% | (73) | (73) | (73) |
| | 2022/23 Rate Increase of 5.7% | ---- | (245) | (245) |
| | 2023/24 Rate Increase of 4.1% | ---- | ---- | (175) |
| | Balance end of year | 1,286 | 733 | nil |