

B.C. HYDRO'S 2020/21 ANNUAL REPORT: SURPLUS SALES PARTLY OFFSET DECLINE IN DOMESTIC DEMAND

Last week the government finally released B.C. Hydro's annual report for 2020/21 even though the external auditor signed off the financial statements on 10 June 2021.¹ The government did not explain why it was necessary to delay the release. This paper reviews some of the financial and operational highlights of the year.

1.0 Financial Summary

The 2020/21 net income of \$688 million was slightly lower than the \$705 million reported for the prior year. The BC government requires the BC Utilities Commission to set BC hydro's rates to achieve a predetermined profit target, and uses regulatory accounting to ensure that these targets are achieved. For the year the initial surplus was \$ 1.29 billion, which was reduced to \$688 million after transfers to these accounts. The government-required target was \$712 million.

An increase in the yield on longer-term government bonds in March 2020 compared to the prior year yield lowered the net loss on BC Hydro's interest rate hedging program. This was reported as \$519 million reduction in finances charges and was the major reason for the jump in the initial net income (before transfers to regulatory accounts). This uptick in interest rates, and improved financial markets, also explains the decline in the net balance in the regulatory accounts from \$5.0 billion to \$4.28 billion.

Table 1 – REVENUE AND EXPENDITURE SUMMARY (\$=million)

	2019/20	2020/21	Difference	Per Cent
Revenue				
Domestic	5,393	5,237	(156)	(2.9)
Trade	876	1,177	301	34.4
Total	6,269	6,414	145	2.3
Expenditures				
Domestic Energy	1,681	1,690	9	0.5
Trade Energy	689	579	(110)	16.0
Amortiz. & Depreciation	988	1,009	21	2.1
Grants & Taxes	254	254	0	0
Finance Charges	892	743	(149)	(16.7)
Debt Hedges Fair Value	774	(519)	(1,293)	n/a

¹ <https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/accountability-reports/financial-reports/annual-reports/bchydro-annual-service-plan-report-2020-2021.pdf>.

Other Operating Costs	1,372	1,366	(6)	0.4
Total	6,650	5,122	(1,528)	(23.0)
Net Income Before Reg. Acc.	(360)	1,292	1,652	n/a
Regulatory Account Change	1,086	(604)	n/a	n/a
Net Income	705	688	(17)	(2.4)
Net Regul. Acc't Balance	5,005	4,277	(728)	(14.5)
Equity	5,654	6,367	713	12.6
Ratio	88.5%	67.2%		
Net Long-Term Debt	23,354	24,740	1,386	5.9

Source: B.C. Hydro 2020/21 Annual Report page 115 and note 5.

No dividend was paid to the government and no dividend was paid in the prior year.

2.0 Domestic Sales Continue to Decline

BC Hydro reported a 1.5% (791 GWh) decline in domestic power sales, due primarily to declines in Commercial (down 3.2%) and large industrial (down 7.2%) sales. The measures to suppress COVID-19 lead to a drop in Commercial sales, offset by an increase in Residential sales. Revenue from Domestic sales declined by \$156 million (4.6%), while Trade revenue increased by \$301 million (up 34%). BC Hydro now includes surplus domestic power generation in the Trade figure.

Table 2 – GWh SALES by CUSTOMER CLASS

	2019/20	2020/21	Difference	Per Cent
Residential	17,993	18,983	990	5.5
Lt. Ind. & Commercial	18,692	18,091	(601)	(3.2)
Large Industrial	13,398	12,438	(960)	(7.2)
Total	50,083	49,512	(571)	(1.1)
Other Sales	1,848	1,628	(220)	(11.9)
Total Domestic	51,931	51,140	(791)	(1.5)
Trade incl Surplus	27,188	32,640	5,452	20.0

Source: B.C. Hydro 2019/20 Annual Report p. 116.

Table 3 – SALES INCOME by CUSTOMER CLASS (\$=million)

	2019/20	2020/21	Difference	Per Cent
Residential	2,169	2,210	41	1.9
Lt. Ind. & Commercial	1,942	1,830	(112)	(5.8)
Large Industrial	850	762	(88)	(10.4)

Other Sales	432	435	3	1.0
Total Domestic	5,393	5,237	(156)	(4.6)
Trade incl Surplus	876	1,177	301	34.4

Source: B.C. Hydro 2019/20 Annual Report p. 116.

The decline in domestic sales maintains a longer-term trend. Table 4 shows that over the last five years total domestic sales declined by 6,151 GWh (10.8%), while BC Hydro-owned generation and the purchase of power from contracted independent producers increased by 690 GWh. The result has been a large increase in surplus domestic power that was marketed by Powerex to other jurisdictions.

Table 4 –FIVE YEAR SOURCE OF DOMESTIC ELECTRICITY (GWh)

	2015/16	2020/21	Difference	Per Cent
Domestic Sales	57,300	51,140	(6,151)	(10.8)
Line loss	5,713	5,104	(609)	(10.7)
TOTAL	63,013	56,244	(6,769)	(10.7)
Owned Generation	49,567	49,946	379	0.8
Indep. Power Producers	14,319	14,630	311	2.2
(Surplus)/Deficit	(873)	(8,332)	(7,459)	
TOTAL	63,013	56,244	(6,769)	(9.9)

Source: BC Hydro annual reports, five year summary statistics for domestic sales and line charges, and management discussion of domestic energy costs.

BC Hydro reported that the average cost of acquiring IPP power was \$95.90/MWh, while the average sale price of Trade power was \$42.52/MWh. This suggests that the cost to generate the 8,300 surplus GWh in 2020/21 was \$796 million (assuming all the surplus power was IPP generated), while only \$353 million was recouped through Trade sales.² The corporation is actively seeking to reduce the amount of IPP purchases.³ Other interest groups are actively promoting the need for additional private power generation.⁴

Unlike previous years, BC Hydro did not provide the average annual water inflow, other than to say that the system storage was higher than the average and higher than the previous year.⁵

² BC Hydro annual report 2020/21, pages 22 and 23.

³ See for example <https://www.campbellrivermirror.com/news/bc-hydro-planning-future-without-vancouver-islands-largest-gas-fired-power-plant/>

⁴ <https://theyee.ca/News/2021/08/30/BC-Blocking-Needed-First-Nations-Power-Projects/>

⁵ See page 24.

3.0 Trade Income

As noted earlier, BC Hydro now includes surplus domestic power in its Trade totals. The 2020/21 GWh sales increased by 5,452 GWh (up 20%), while the Trade revenue increased by \$301 million, or 34%. Much of the increase in sales was due to surplus Domestic power.

4.0 Regulatory Accounts

As of 31 March 2020, the net balance in the regulatory accounts was \$4.28 billion, a decrease of \$728 million from the prior year. A new Load Variance regulatory account formally tracks the deferral of variances between the budgeted revenue and the actual revenue. This ensures that the government mandated net income target is achieved.

The \$4.25 billion in net regulatory assets represents about 67.8% of the recorded equity. The ratio of net regulatory assets to equity was 67.2% as of 31 March 2021 compared to 88.5% for year-end of the prior year.

5.0 Interest Rate Hedging Liability Declines

In 2016/17, BC Hydro began to purchase contracts to hedge against increases in the interest rate for future debt. The notion was that as rates increased the hedges would offset the additional cost of borrowing. The regulator agreed to create a new Debt Management Regulatory Account (DMRA) to record the expected gains. Unfortunately, rates began to decline resulting in growing liabilities.⁶

In 2019/20, as interest rates were lowered to stimulate economic activity, the balance in the DMRA grew by \$790 million to total \$953 million. As of 31 March 2020, the hedging contracts totalled approximately \$5.0 billion, approximately \$1.0 billion less than the prior year.⁷

In March 2021, the higher yields on long-term bonds reduced the liability in the interest rate hedging program. The deferred shortfall dropped to \$449 million from \$953 million in the previous period, while the total of the hedging contracts dropped to \$3.2 billion, compared to \$ 5.0 billion in the prior year.⁸ BC Hydro has placed a moratorium on new hedge contracts. Lower yields in Q1 of 2021/22 will partially again increase the hedging liability.

⁶ More background can be found in http://www.bcpolicy Perspectives.com/media/attachments/view/doc/commentary_hydro_hedging_8_october_2019_2/pdf/commentary_hydro_hedging_8_october_2019_2.pdf

⁷ See page 88.

⁸ BC Hydro annual report, p. 103.

6.0 Capital Expenditures

Table 5 shows that BC Hydro spent \$3.2 billion on capital projects during 2020/21, of which \$1.7 billion was for the Site C dam. Table 5 shows that, excluding Site C, for the past five years the value of capital expenditures has been in the \$1.8 to \$1.5 billion range.

BC Hydro reported (page 42) that it expects to expend an additional \$9.2 billion from the total Site C budget of \$16.0 billion.

Table 5 – CAPITAL EXPENDITURES (\$=million) Y

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Sustaining	1,136	1,286	1,190	965	955	971
Growth	681	495	578	1,744	508	511
Site C	489	663	705	1,117	1,619	1,725
Total	2,306	2,444	2,473	3,826	3,082	3,207

Source: B.C. Hydro annual report, Appendix C, p. 115, and page 30. FY2018/19 includes a one-time purchase of the balance of the Waneta Dam from FortisBC.

7.0 Long-Term Debt

During the last five years BC Hydro has increased from \$18.0 billion to \$24.7 billion, an increase of \$6.7 billion, or 34.7%.

Table 6 – Long-Term Debt (\$=billions)

	2015/16	2016/17	2017/18	2019/20	2020/21
LT Debt	19.80	20.14	22.10	23.53	24.74
% Change	10.0%	1.7%	9.7%	6.5%	5.1%

Source: BC Hydro annual report, p. 115.

©Richard McCandless September 5, 2021. <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 is an intervener in the BC Utilities Commission's recent reviews of ICBC's and B.C. Hydro's rate requests.

