

## BC HYDRO’S GROWING PENSION LIABILITY

Unlike most public or quasi-public sector defined benefit pension plans, the BC Hydro plan has recorded low accrued solvency ratios during the last five years. In 2015/16 the plan recorded a solvency ratio of 72%, with a net accrued liability of \$1.2 billion. The Insurance Corporation of British Columbia (ICBC), another commercial Crown corporation, recorded a solvency ratio of 93% last year.

As a regulated power utility, BC Hydro has employed regulatory accounting to defer annual variances between budgeted and actual costs to future rate requirements.<sup>1</sup> The deferrals, with a net balance of approximately \$5.9 billion in 2015/16, allow for a smoothing of the annual rate changes. The pension deferral has increased from \$55 million to \$691 million in the last four years, an increase of over 1,250%.

This paper examines some of the reasons for the low solvency ratio, and questions whether the access to a deferral mechanism has played a role in allowing the net pension liability to increase.

## BC HYDRO’S GROWING PENSION LIABILITY

BC Hydro had maintained a healthy solvency ratio of close to 100% until the 2008 financial crisis, when the value of the pension assets dropped. The 97% solvency ratio in 2008 fell to 72% at year-end 2013, and has remained in the mid to low 70% range in 2015 and 2016.

The declining interest rate environment of recent years is reflected in the discount rate, which declined from 5.42% in 2012 to 3.51% in 2016. The lower discount rate increases the cash requirement for pension obligations and, without a matching increase in asset, increases the net liability and reduces the solvency ratio.

Table 1 shows some key indicators of BC Hydro’s defined benefit pension plan, including the net liability, the solvency ratio, the net cost of the non-funded plan (Other Benefits) and the discount rate used to each year. Table 1 also shows the annual amounts in the two regulatory (deferral) accounts.

**TABLE 1 BC HYDRO PENSION KEY INDICATORS (\$=millions)**

|                   | 07/08 | 09/10 | 11/12 | 12/13 | 13/14 | 14/15 | 15/16 |
|-------------------|-------|-------|-------|-------|-------|-------|-------|
| Pension Liability | 79    | 364   | 862   | 1,035 | 779   | 1,066 | 1,216 |
| Solvency Ratio %  | 97.0  | 85.7  | 74.4  | 72.0  | 78.9  | 75.5  | 72.3  |
| Other Benefits    | 221   | 238   | 320   | 361   | 374   | 432   | 441   |
| Discount Rate %   | 5.50  | 7.35  | 5.42  | 4.62  | 4.00  | 4.37  | 3.51  |
| Defer-Pensions    | nil   | 72    | 55    | 544   | 280   | 564   | 691   |
| -IFRS Δ           | nil   | nil   | nil   | 723   | 688   | 650   | 612   |

Source: BC Hydro annual reports.

<sup>1</sup> Since 2008/09 BC Hydro has also been deferring revenue variances.

Table 1 shows that, on an accrual basis, the pension liability has grown from \$79 million at year-end 2007/08 to \$1.2 billion by year-end 2015/16, and the solvency ratio has fallen from 97% to 72.3% during these eight years.

The increase in the pension liability would have reduced BC Hydro's equity. However, beginning in 2009/10 the BC Utilities Commission agreed to a new deferral account for the variance between the indicated (budgeted) and the actual pension liability. The scope of the deferral was widened in 2012/13 when the variance in other non-funded pension benefits was allowed to be deferred.

A second deferral account was also established in 2012/13. This allowed for the deferral of the pension liability due to the change from the Canadian GAAP to the new IFRS accounting rules (shown as Defer-IFRS in Table 1).

#### WHY DEFER PENSION VARIANCES?

Only regulated power utilities can defer the variance between the amount of pension funding included in the annual approved rates and the actual cost. If the year-end actual requirement is greater than the budgeted (indicated) level the shortfall is deferred and amortized into subsequent rates, usually over the period of the average working life of the employee group (ranging from 11 to 13 years). A gain in any year is credited to the deferral account.

Changes in the actuarial valuation of plan assets, and the discount rate on obligations, can have dramatic year-over-year effects on the net balance of the pension plan.

Following the financial crisis of 2008 the value of the pension assets, especially the equity assets, dropped considerably, resulting in a large increase in the pension liability. In the F2009-F2010 rate request to the BC Utilities Commission, BC Hydro sought approval of a deferral of the variance between the pension funding assumed in the rate request and any variance. Without the deferral, BC Hydro estimated that the rates would need to increase by an additional 3%. Given the volatility of the financial markets in late 2008 and early 2009, the Commission agreed to the deferral, pending the next rate review for 2010/11.

The pension deferral was renewed in 2010/11 and again for the 2011/12 to 2013/14 rate term. The Utilities Commission agreed to widen the scope of the deferral account to include the variance in costs in the "Other Post-Employment Benefits," which includes short-term medical, life insurance and other benefits. BC Hydro is responsible for ensuring that the pension plan has sufficient assets to pay pension benefits, but the other benefits are not funded.

Cabinet's Direction 7 (March 2014) continued the pension deferral account (the Non-Current Pension Regulatory Account), and it remains in place for the current F17 to F19 rate request.

#### DOES A DEFERRAL ACCOUNT RESULT IN MORAL HAZARD RESPECTING PENSION FUNDING?

A general concern with deferral, or regulatory, accounting is that it can promote "moral hazard." This means that the access to the deferral account for variances between the budgeted and the actual cost leads to a lack of incentive to adequately estimate and manage expenditures, knowing that variance will be covered by the deferral. In other words, it may be more acceptable to under-forecast the cost (and rate), rather than provide a more accurate –and higher-- rate request.

The lack of incentive to restrict the pension liability can also be reflected by BC Hydro management not pressing for a reduction in the pension benefits, or an increase in the contribution rates, to reduce the growth in the liability. As noted in Table 1, the pension liability has jumped from \$79 million (97% funded) in 2007/08 to \$1.2 billion (72.3% funded) in 2015/16.

Other public sector pension plans, which do not have access to deferral accounts, have encountered similar volatility in the financial markets and low interest rates, but managed to maintain a much higher solvency ratio. The four main public sector plans have kept their solvency ratios near 100% during the period of low interest rates, usually through a combination of reduced benefits and higher contribution rates.<sup>2</sup>

ICBC, another large Crown corporation, has kept its pension assets and obligations close to a balanced position during the last seven years, closing the last year with a solvency ratio of 93%.<sup>3</sup> WorkSafeBC, another public-sector corporation, ended its 2015 fiscal year with a pension solvency ratio above 100%.<sup>4</sup>

To achieve the 93% solvency ratio achieved by ICBC, BC Hydro would have required an increase in assets of approximately \$875 million.

FortisBC, the second major power utility regulated by the BC Utilities Commission, has also been allowed to defer pension variances. In 2015, Fortis recorded a solvency ratio of 86.1%, compared to a 2014 ratio of 83.1%. The net pension and OPEB deferral balance in 2015 was \$32.7 million, or 11.2% of the total net deferral balance. The percentage was similar to BC Hydro's 2015/16 balance of \$691 million, which represented 11.7% of the \$5.9 billion net deferral balance.<sup>5</sup>

## GOING CONCERN FUNDING

Changes in the actuarial valuation of plan assets, and changes to the discount rate used to calculate plan obligations, can have dramatic year-over-year effects on the net balance of the pension plan. The recent period of low interest rates, by increasing the value of the registered pension plan obligation, has been the main reason for BC Hydro's relatively low solvency ratio.

BC Hydro does not manage the pension plan to achieve an accrued solvency ratio of 100%. It believes that the solvency ratio is not an appropriate measure; instead it manages to near a "going concern" ratio of 100%. The solvency approach assumes that the corporation will be wound up with the pension liabilities becoming due, while the going concern approach assumes that the corporation will continue to operate. BC Hydro quantified the difference in the two valuations as of December 31, 2015, as follows (\$=million)<sup>6</sup>:

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<sup>2</sup> BC Government, 2016 Financial and Economic review, August 2016, p. 43;  
<http://www.fin.gov.bc.ca/tbs/Financial%20and%20Economic%20Review,%202016.pdf>

<sup>3</sup> See <http://www.icbc.com/about-icbc/company-info/Documents/annual-report-2015/ar-15.pdf> p. 76.

<sup>4</sup> See 2015 annual report at <https://www.worksafebc.com/en/resources/about-us/annual-report-statistics/2015-annual-report/2015-annual-report-and-2016-2018-service-plan?lang=en> p. 102.

<sup>5</sup> The comparisons exclude the pension deferral resulting from the change in accounting systems; the FortisBC information is from the 2015 annual report. As a percentage of equity, however, the FortisBC pension deferral ratio of 4.2% was significantly less than the 15.4% recorded for BC Hydro.

<sup>6</sup> BC Utilities Commission, BC Hydro F17 to F19 RRA, IR 1, BCUC 63.14.

|              | <b>Solvency</b> | <b>Going Concern</b> | <b>% Change</b> |
|--------------|-----------------|----------------------|-----------------|
| Assets       | \$ 3,253        | \$ 2,376             | (27)            |
| Liabilities  | \$ 4,406        | \$ 2,376             | (46)            |
| Funded Ratio | 73.8            | 100                  |                 |

Compared to the solvency valuation, the going concern approach results in a much greater reduction in liabilities compared to assets. The going concern approach more closely aligns with the actual cash requirements. BC Hydro believes it is more “prudent” in terms of cash management to use letters of credit (similar to a line of credit) to achieve the going concern 100% ratio than to lower equity, or raise rates, to achieve a 100% solvency ratio. BC Hydro justifies this approach by saying that as an agent of the Crown the risk of insolvency is low.<sup>7</sup>

While it may be true that there is a low risk of insolvency, BC Hydro (like ICBC) has not been exempted from the solvency funding requirement.<sup>8</sup> The Financial Institutions Commission published a report in 2015 which indicated that there were a small number of defined benefit pension plans operating with letters of credit.<sup>9</sup> It is apparent that BC Hydro is one of the small number.

#### EMPLOYEE AND EMPLOYER CONTRIBUTION

The level of the salary contribution to the pension plan is an indicator of management’s, and often the union’s, desire to keep the registered defined benefit pension plan adequately funded. Pension contributions are often involved in the negotiations over the terms of remuneration in collective agreements. Most major public sector pensions are jointly administered by the government and the respective employee group.

From the information available from a Google search, and using the example of salary above the income tax cut off level (the yearly maximum pensionable earnings), it would appear that contribution rates for the BC Hydro registered pension are below those of other major public service, or quasi-public service, pension plans.

|   | <b>Employee</b> | <b>Employer</b> | <b>Total</b>                |
|---|-----------------|-----------------|-----------------------------|
| BC Hydro 2010 to 2015                   | 6.31%           | 9.87%           | 16.18%                      |
| 2016                                    | 8.09            | 8.09            | 16.18                       |
| Planned <sup>10</sup>                   | 8.41            | 8.41            | 16.82                       |
| ICBC                                    | 10.32           | 10.32           | 20.64                       |
| BC Government Jan. 1 <sup>st</sup> 2016 | 9.86            | 9.96            | 19.82 – no YMPE distinction |
| College Plan Jan 1 <sup>st</sup> 2016   | 9.86            | 9.96            | 19.82 – no YMPE distinction |
| Municipal group 3 ≥ 45 yrs.             | 10.00           | 12.20           | 22.20                       |
| BC Teachers                             | 14.00           | 14.31           | 28.31                       |

<sup>7</sup> Ibid., IR 1, RM 2.1.

<sup>8</sup> Public sector plans, such as those noted in footnote 1, are exempt, see <http://georgeandbell.com/2012/11/pension-plan-funding-relief-from-solvency-funding-in-b-c/>

<sup>9</sup> See <http://www.fic.gov.bc.ca/pdf/pensionplans/DefinedBenefitProfile.pdf>

<sup>10</sup> BC Utilities Commission, BC Hydro F17 to F19 RRA, IR 1, RM 2.1.

In his 2014 report on electricity sector pensions in Ontario, Jim Leech said the plans were not sustainable, and should have contribution levels of between 18 to 24%.<sup>11</sup> The report made many recommendations and included some comparisons with Hydro Quebec and BC Hydro.

In response to a question during the BC Utilities Commission review of its F17 to F19 rate increase request, BC Hydro correctly stated that the contribution rate has a minor effect on the pension solvency when compared to changes in the discount rate used to estimate the annual change in the pension obligations. However, it does indicate the philosophy of the public utility in apparently not increasing the contribution levels as the pension liability grew.

BC Hydro has taken a passive approach to the problem of the pension deficiency in the belief that higher interest (discount) rates will increase the solvency ratio; “It does not make sense to fund a solvency deficit caused by historically low discount rates, as an increase in the discount rate over time will resolve the solvency deficit. BC Hydro notes that a 100 basis point (i.e., 1 per cent) increase in the discount rate will decrease the solvency deficiency by approximately \$0.5 billion”.<sup>12</sup>

## CONCLUSION

It seems apparent that access to a deferral account has encouraged a passive approach on the part of BC Hydro to the question of the growing pension liability. In fact, BC Hydro has repeatedly budgeted on the basis of a lower accrued pension obligation, which allows for a lower rate forecast, only to find that the actual liability was higher. In 2014, for example, it forecast that the pension deferral account would have a 2015/16 balance of \$171 million, while the actual was \$691 million.

Given recent events, BC Hydro’s reliance on a return to higher interest rates and improved equity markets to solve the pension liability gap may be a case of wishful thinking.<sup>13</sup> Managing to a going concern funding target may suit a cash management approach, but BC Hydro is still expected to achieve an accrued solvency ratio of 100%.

The access to the deferral account relieves BC Hydro management of the need to seriously address the pension deficiency. This keeps electricity rates lower in the short-term, but raises inter-generational equity questions (future rate-payers paying for current costs), not to mention the question as to why employees of BC Hydro are paying a lower proportion of their salary for pension costs compared to other public and quasi-public sector employees.

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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. 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.

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<sup>11</sup> <http://www.fin.gov.on.ca/en/pension/electricity-sector.html> see also <http://www.theglobeandmail.com/news/national/report-warns-of-perils-of-ontarios-hydro-workers-rich-pensions/article19925530/>

<sup>12</sup> Ibid. Of course such an increase would dramatically increase BC Hydro’s borrowing costs, which would also be deferred.

<sup>13</sup> See *The Economist*, September 24, 2016; <http://www.economist.com/news/briefing/21707560-it-costs-lot-more-fund-modern-retirement-employers-workers-and-governments-are-not>

