February 2019

RATE-REGULATED ACCOUNTING AT BC HYDRO

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The Honourable Darryl Plecas
Speaker of the Legislative Assembly
Province of British Columbia
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Dear Mr. Speaker:

I have the honour to transmit to the Speaker of the Legislative Assembly of British Columbia the report, *Rate-regulated Accounting at BC Hydro*.

We are issuing this report under section 12 of the *Auditor General Act*, which provides for the Auditor General to make a report at any time to the Legislative Assembly or other government organization.

Our report includes information obtained during our audit of the province's summary financial statements, as reported in *Understanding Our Audit Opinion on B.C.'s 2017/18 Summary Financial Statements*.

Carol Bellringer

Carol Bellringer, FCPA, FCA
Auditor General
Victoria, B.C.
February 2019

The Office of the Auditor General of British Columbia would like to acknowledge with respect that we conduct our work on Coast Salish territories. Primarily, this is on the Lkwungen-speaking people's (Esquimalt and Songhees) traditional lands, now known as Victoria, and the W̱SÁNEĆ people's (Pauquachin, Tsartlip, Tsawout, Tseycum) traditional lands, now known as Saanich.

AUDITOR GENERAL'S COMMENTS

In August, we issued a report called *Understanding our Audit Opinion on B.C.'s 2017/18 Summary Financial Statements*. In that report we briefly explained our qualification, or concern, related to rate-regulated accounting and committed to issuing a separate report to further explain it and BC Hydro's use of regulatory accounts. We're pleased to deliver on that commitment with this report.

Carol Bellringer, FCPA, FCA
Auditor General

Rate-regulated accounting is a special accounting practice that allows regulated companies to record expenses in a different period than the costs would otherwise be recorded on the financial statements. For example, an unusually bad storm year may result in higher annual repair costs than expected. Rather than increasing rates in the short term or potentially incurring a financial statement loss, the regulator may allow the utility to defer the recording of expenses, and recovery of these costs, to future years.

Rate-regulated accounting only applies to regulated companies that meet specific accounting requirements. These requirements are explained more fully in this report, but in short the regulated company must follow an appropriate rate-setting framework. In B.C. there is an appropriate framework in place, but we found that government had largely overridden this framework in the case of BC Hydro. Specifically, government had provided detailed direction to the British Columbia Utilities Commission, or BCUC as it is commonly referred to, thereby limiting BCUC's ability to regulate BC Hydro. BC Hydro was not allowed to charge its customers enough to cover its operating costs each year. The question everyone was left with was: What would have been allowed in the absence of so much government direction? The answer to that question is not clear.

While rate-regulated accounting is common in some sectors and industries, including utilities, the large amount in BC Hydro's regulatory account balances is not. BC Hydro has accumulated approximately $5.5 billion in deferred costs. While BC Hydro is recovering some of these deferred costs through current rates, other costs continue to be deferred.

AUDITOR GENERAL'S COMMENTS

No one can predict exactly what the impact of recovering this outstanding balance will have on rates, as it depends on how well BC Hydro can manage its affairs and on all of the future events impacting their operations.

As of March 31, 2018, BC Hydro had 29 regulatory accounts, with a net regulatory asset balance of approximately $5.5 billion. Some of these accounts are common, such as variance accounts to smooth out short term variances associated with highly volatile or unpredictable costs. Other accounts, such as the Rate Smoothing Regulatory Account, are less common, and defer unspecified costs to future years. The nature and balances of these accounts is explained more fully in the report.

Government says it's making changes that affect BC Hydro and BCUC. Government recently removed the regulation that prevented BC Hydro from implementing appropriate accounting standards. It has also said that it is removing some of the directions to BCUC that have impacted the integrity of the rate-setting framework. We are waiting to see how these changes will roll out and how they will affect both BC Hydro's and government's financial statements.

Next year, we will become BC Hydro's financial statement auditor. We will continue to work with government and BC Hydro staff to assess the impact of regulation on BC Hydro's financial reporting and its impact on government's summary financial statements. Understanding rate-regulated accounting is important to appreciate the impact it has on the bottom line for both BC Hydro as well as the government as a whole, and on taxpayers as well as ratepayers. It is a complex area and confidence in the regulatory system is critical to protect the public interest.

I would like to thank everyone we spoke with for their co-operation and involvement throughout this project.

Carol Bellringer

Carol Bellringer, FCPA, FCA
Auditor General
Victoria, B.C.
February 2019

REPORT HIGHLIGHTS

RATE REGULATION:

controlling the price a company charges its customers

RATE-REGULATED ACCOUNTING:

shows the **EFFECTS** of rate regulation and is **widely used** in North America

REGULATORS (such as BCUC) are **CRITICAL** to **RATE-REGULATED** accounting

Government has **RESTRICTED** British Columbia Utilities Commission (BCUC) from regulating BC Hydro

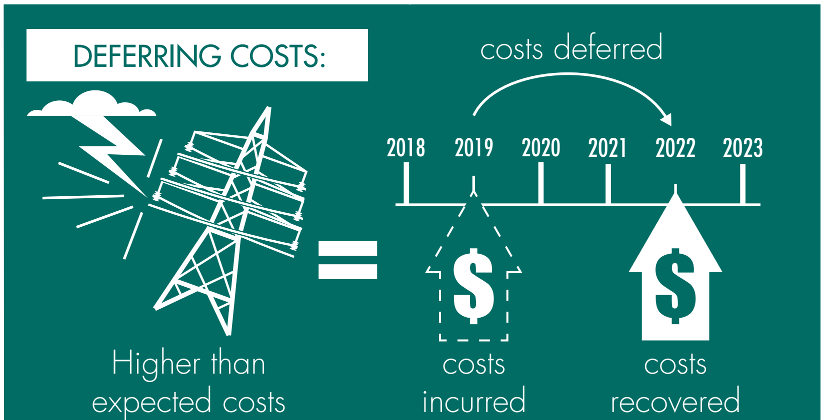
BC Hydro has deferred **$5.5 billion** in operating costs

WE RECOMMEND

BC Hydro prepare its financial statements in accordance with **CANADIAN GAAP**

BC Hydro has **29 REGULATORY ACCOUNTS** that defer certain costs for future recovery or refund

DEFERRING COSTS:



ABOUT THIS REPORT

THE PURPOSE OF THIS REPORT is to explain rate-regulated accounting, both in general, and how it's currently being applied at British Columbia Hydro and Power Authority (BC Hydro). This report also explains our qualification on rate-regulated accounting for government's summary financial statements for fiscal years 2017 and 2018.

This report uses audited financial data as of March 31, 2018 and, for subsequent events, is current to December 31, 2018.

RECOMMENDATION

WE RECOMMEND THAT BC HYDRO:

1 prepare its financial statements in accordance with Canadian generally accepted accounting principles, without modification.

RESPONSE FROM GOVERNMENT AND BC HYDRO

THE MINISTRY OF Energy, Mines and Petroleum Resources (Ministry) and BC Hydro appreciate the Auditor General's report "Rate regulated Accounting at BC Hydro" (Report).

We agree with the Report's sole recommendation "that BC Hydro prepare its financial statements in accordance with Canadian generally accepted accounting principles, without modification." Implementation of this recommendation is under way.

As noted in the Report, Regulation 231/2018 was deposited on November 7, 2018. The regulation repealed Part 3 of Regulation 257/2010, which created the "prescribed standards" that did not require an independent regulator for BC Hydro's ongoing use of rate regulated accounting. The Comptroller General has directed BC Hydro to fully adopt International Financial Reporting Standards for the fiscal year ending March 31, 2019, which is the appropriate basis of accounting for BC Hydro under Canadian generally accepted accounting practices.

The Report also notes that a comprehensive review of BC Hydro was announced in June 2018. A key objective of the BC Hydro review is to enhance the British Columbia Utilities Commission's (BCUC's) regulatory oversight of BC Hydro. A report on Phase 1 of that review is expected to be released in February 2019.

The Auditor General's Report is based on audited financial information as of March 31, 2018, and subsequent events to December 31, 2018. One significant event noted in the Report was the government's decision to adjust regulatory assets in the 2017/18 Public Accounts to reflect the estimated impact of government directions to the BCUC on the net balance of BC Hydro's regulatory accounts. The report on Phase 1 of the comprehensive review of BC Hydro will include decisions that will impact BC Hydro's financial statements. As a result, the net balance of BC Hydro's regulatory accounts at March 31, 2019 is expected to be materially lower than the $5.5 billion total balance in BC Hydro's financial statements at March 31, 2018 shown in the Auditor General's Report.

The Ministry and BC Hydro highlight that mechanisms are already built into current customer rates to recover 25 of the current 29 regulatory accounts over varying amortization periods. Exceptions are: the Rate Smoothing Regulatory Account (which does not require a recovery mechanism at this time); the Site C Regulatory Account (for which BC Hydro will seek BCUC approval to start to be recovered when Site C comes into service); the Mining Customer Payment Plan Regulatory Account (which has a zero balance); and the Customer Crisis Fund Regulatory Account (for which the BCUC has yet to determine the amortization period).

RESPONSE FROM GOVERNMENT AND BC HYDRO

The Auditor General's Report links the cost of service component of accounting standard ASC980 to the recovery of costs for each customer class. An alternative view, held by the Ministry, is that the allocation of costs by customer class is a matter of public policy. The BCUC's ability to reallocate costs amongst customer classes is currently restricted by section 58.1 of the *Utilities Commission Act* and Direction No. 7 to the BCUC. Similarly, legislation in Quebec prohibits reallocation of costs amongst customer classes. The Ministry intends to continue to make policy recommendations to government in relation to the allocation of costs by customer class. However, the Ministry also believes that it would be appropriate for the BCUC to review rate rebalancing in response to applications from public utilities.

The Ministry and BC Hydro look forward to continuing to work with the Office of the Auditor General on rate regulated accounting, and on BC Hydro's financial reporting more generally as the Auditor General assumes the role of BC Hydro's auditor on April 1, 2019.

RATE-REGULATED ACCOUNTING IS WIDELY ACCEPTED

RATE REGULATION

RATE REGULATION OCCURS when a regulatory body or government sets the prices (or rates) that a business can charge its customers. Rate regulation of privately owned businesses emerged in the United States in the late 1800s in response to concerns that railroad and grain storage monopolies were setting their own, excessive rates. Unlike most businesses, where prices were determined by competition, these monopolies left consumers with little choice about who to purchase goods and services from.

Early U.S. case law established government's right to regulate and to set prices where there was both public interest and necessity. Later, in 1898, the U.S. Supreme Court declared that a regulator composed of persons with special skills and experience could establish equitable rates more effectively than government could.

The goal of rate regulation is for a regulator to set the prices that a business can charge its customers, and in doing so, balance the interests of the company, its shareholders and its customers. Having a regulator set prices in a monopolistic environment can provide certainty about the amounts customers must pay, while at the same time allowing a company to sustain itself and shareholders (investors) to get a reasonable return on their investment.

Part of the role of a regulator is to ensure that the costs incurred by a business are reasonable and to set prices that are fair and reasonable for the goods and services provided. Costs imprudently incurred by a company should impact its own profitability rather than the rates charged to customers.

Historically, most regulators in Canada and the United States have approved rates for utility companies (utilities) on a cost-of-service basis. Under this approach, rates are set to ensure that the utility both recovers the costs of providing a service to its customers (ratepayers) and provides a fair return on shareholders' investment. Under a cost-of-service model, rates for a given period are designed to recover the costs of the services provided for that period.

RATE-REGULATED ACCOUNTING IS WIDELY ACCEPTED

RATE-REGULATED ACCOUNTING

In the 1960s, rate-regulated accounting emerged in the United States as a way to reflect the effects of rate regulation on companies being regulated. For example, if a regulator is affecting the rates (and therefore revenue) that can be charged, as well as the timing of rate increases, then a company may not be recovering its costs at the same time as those costs are paid for. Rather than recording costs as an expense in the year that they are incurred, as is typical under generally accepted accounting principles, some costs may be recorded as regulatory assets and liabilities to be recovered or refunded through future rates.

Rate-regulated accounting doesn't change a utility's costs, but instead changes *how* those costs are recorded in the entity's financial statements, and *when* they are recorded as expenses. A regulator may use a regulatory account to smooth out the impact of volatile or one-time costs on rates. Rate regulation affects the timing of rate increases, and has a financial impact on ratepayers and the utility being regulated. For example, an abnormally bad storm year may result in higher annual repair costs than expected. As a result, the approved rates may be insufficient to recover these costs in the period in which they occurred. Rather than being recorded in expenses in one year, the costs are instead put into a regulatory asset account. The regulator allows the utility to recover these additional costs through rate increases, and record the expenses, in future years.

REGULATORY ASSETS AND REGULATORY LIABILITIES

A regulatory account can be recorded as either a regulatory asset or a regulatory liability. A regulatory asset represents incurred costs to be recovered through future revenue. These costs are sometimes referred to as deferred costs. A regulatory liability represents a financial obligation of a regulated utility to its ratepayers.

STORM VARIANCE REGULATORY ACCOUNT

The Storm Variance Regulatory Account was approved by BCUC in 2009. The account relates to costs of storm-related damage to BC Hydro's infrastructure (such as a storm damaging BC Hydro's power lines or transformers). BC Hydro forecasts its storm-related costs at the beginning of a test period and bases its projections on an average of the five most recent normal weather years. Differences between what BC Hydro projects that it will incur for storm damage and what it actually incurs are then recovered over the next test period (usually 2–3 years). The storm variance account had a balance of $46.5 million at the end of fiscal 2018.

RATE-REGULATED ACCOUNTING IS WIDELY ACCEPTED

Although utilities may be subject to rate regulation, they do not necessarily use rate-regulated accounting. Rate-regulated accounting is a modification by standard setters of the generally accepted accounting principles that apply to businesses in general, and the use of rate-regulated accounting is appropriate only if certain conditions are met.

ACCOUNTING STANDARDS ARE IMPORTANT

Public sector accounting standards in Canada are designed specifically for the public sector by the Public Sector Accounting Board, an independent standard-setting body. These standards create consistency in

Exhibit 1: Accounting standards—The path to rate-regulated accounting

PSAS

Government business enterprises (GBE) are required to adopt IFRS

IFRS

Entities that applied rate-regulated accounting under their previous GAAP may continue to do so if they are first-time adopters of IFRS and meet scope criteria under IFRS 14

IFRS 14

Scope criteria for IFRS 14:

a) conducts rate-regulated activities

b) recognized regulatory accounts under previous GAAP

Under IFRS 14, rate regulation requires a price-setting framework overseen by a rate regulator

ASC 980

Entity-level criteria under ASC 980:

a) Rates are established by an independent third-party regulator or the entity's own governing board

b) Rates are designed to recover costs of service

c) Rates designed to recover costs can be charged to and collected from customers

RATE-REGULATED ACCOUNTING IS WIDELY ACCEPTED

financial reporting and allow the financial statements of the province to be more easily compared with those of other Canadian jurisdictions. Canadian public sector utilities can apply rate-regulated accounting by following the path shown in Exhibit 1.

Under Canadian public sector accounting standards (PSAS), government business enterprises like BC Hydro are required to apply International Financial Reporting Standards (IFRS). To be eligible to apply rate-regulated accounting under IFRS, an entity must meet the requirements of IFRS 14, *Regulatory Deferral Accounts.*

For a utility to adopt IFRS 14, it must have already been using rate-regulated accounting. Since IFRS 14 does not provide detailed guidance on how to apply rate-regulated accounting, many utilities in Canada use U.S. generally accepted accounting principles (ASC 980, *Regulated Operations*).

IFRS 14 is a temporary standard, and the International Accounting Standards Board (IASB) is working on a permanent standard. (For more information on rate-regulated accounting standards, see Appendix A.)

REGULATORS ARE IMPORTANT

The BC Utilities Commission (BCUC) is the government regulator for utilities and other companies in B.C. BCUC regulates B.C.'s natural gas and electricity utilities, including BC Hydro, as well as intra-provincial pipelines, many district heating systems and basic automobile insurance rates in B.C. BCUC regulates Fortis Gas and Fortis Electric, which also use rate-regulated accounting. The Insurance Corporation of British Columbia (ICBC) is an example of an organization that, although subject to rate regulation, does not use rate-regulated accounting.

Our recent report, *Observations on the BC Utilities Commission*, noted that regulators act as a control for a lack of market competition when an organization, such as a utility like BC Hydro, is a monopoly. Regulators are required to follow fair, reasonable and transparent processes, and their decisions are based on evidence.

The provincial government created BCUC in 1980 through the *Utilities Commission Act* (UCA). Before the UCA, BC Hydro was regulated by the provincial government. One of the purposes of BCUC was to regulate BC Hydro like an investor-owned utility. However, government retains the authority to set provincial energy policy, define BCUC's mandate, and direct BCUC on specific matters.

BCUC is a quasi-judicial body with the power to make legally binding rulings, and its decisions can be appealed in court. Under the UCA, BC Hydro is not able to set or change its own rates; it must apply to BCUC for approval. BCUC follows the rate-setting framework established by government through the UCA, which requires it to establish rates that are just, reasonable and not unduly discriminatory.

BCUC is responsible for balancing the interests of ratepayers with the interest of the utilities it regulates. BCUC's mission is to ensure that "ratepayers receive safe, reliable and non-discriminatory energy services at fair rates from the utilities it regulates, and that shareholders of those utilities are afforded a reasonable opportunity to earn a fair return on their invested capital." Under the UCA, BCUC is the sole judge of whether a rate is unjust, unreasonable or unduly discriminatory.

BC HYDRO USES RATE-REGULATED ACCOUNTING ATYPICALLY

GOVERNMENT HAS DIRECTED BC HYDRO'S ACCOUNTING STANDARDS

As of March 31, 2018, BC Hydro had not adopted IFRS, IFRS 14 or ASC 980. This is because government regulation required BC Hydro to follow standards that differ from Canadian public sector accounting standards (PSAS). BC Hydro's standards are described as "prescribed standards."

BC Hydro describes "prescribed standards" as the "accounting principles of [IFRS], with regulatory accounting in accordance with [ASC 980]." However, government waived the part of ASC 980 that requires rates to be established by an independent third-party regulator. This represents a deviation from generally accepted accounting principles (GAAP).

We reviewed rate-regulated utilities in Canada and found that BC Hydro was the only entity in Canada that applies rate-regulated accounting based on "prescribed standards" rather than a national GAAP framework; every other entity has transitioned to a national GAAP framework (see Exhibit 2).

Exhibit 2: Accounting frameworks for Canadian rate-regulated utilities

Utility	Type	Accounting framework
AltaGas	Investor-owned	US GAAP
BC Hydro	Government-owned	Legislation ("prescribed standards")
Emera	Investor-owned	US GAAP
ENMAX	Government-owned	IFRS with IFRS 14
FortisBC Electric	Investor-owned	US GAAP
FortisBC Gas	Investor-owned	US GAAP
Hydro One	Government-owned	US GAAP
Hydro-Québec	Government-owned	US GAAP
Manitoba Hydro	Government-owned	IFRS with IFRS 14
Nalcor	Government-owned	IFRS with IFRS 14
New Brunswick Power	Government-owned	IFRS with IFRS 14
Ontario Power Generation	Government-owned	US GAAP
Toronto Hydro	Government-owned	IFRS with IFRS 14
Yukon Energy	Government-owned	IFRS with IFRS 14

Source: Office of the Auditor General of British Columbia, based on annual financial statements.
Note: Fiscal year-ends for BC Hydro, Manitoba Hydro and New Brunswick Power are March 31, 2018. Fiscal year-ends for all other utilities are December 31, 2017.

BC HYDRO USES RATE-REGULATED ACCOUNTING ATYPICALLY

On November 7, 2018, government rescinded the regulation that required BC Hydro to follow "prescribed standards." Government has directed BC Hydro to adopt IFRS in full for the fiscal year ending March 31, 2019, and has indicated that this includes accounting for rate-regulated activities in accordance with IFRS 14 and the application of ASC 980 without amendment or modification. Government has also indicated that it intends to repeal a number of directions that impact BC Hydro's rate-setting process; however, the timing and impact of these decisions is not yet clear.

RATE-REGULATED ACCOUNTING AT BC HYDRO IS COMPLEX

In theory, BCUC regulates BC Hydro on a cost-of-service basis. BC Hydro must request approval from BCUC to charge rates over a period of time that will allow BC Hydro to recover its costs and earn a reasonable rate of return.

The cost-of-service model for BC Hydro, shown in Exhibit 3 below, is similar to that applied in other jurisdictions.

Exhibit 3: BC Hydro's cost-of-service model

Forecast costs	Forecast total cost of service for providing regulated service; these costs include the cost of energy (generating or purchasing power), operating costs, taxes, depreciation and amortization, finance charges and return on equity.
Forecast revenues	Forecast total revenue under current rates from customers (residential, commercial and light industrial, and large industrial), as well as income from subsidiaries.
Work out the difference	Where there is a difference between forecast costs and revenues, apply for a rate increase or decrease from the regulator as required.
Apply for rate adjustments	BC Hydro applies for rate-adjustments from BCUC through a revenue requirements application, typically every 2-3 years. Revenue requirements proceedings typically involve a series of information requests from BCUC and interveners (i.e., interested parties), and sometimes an oral hearing.

Source: Office of the Auditor General of British Columbia, based on information provided by BC Hydro.

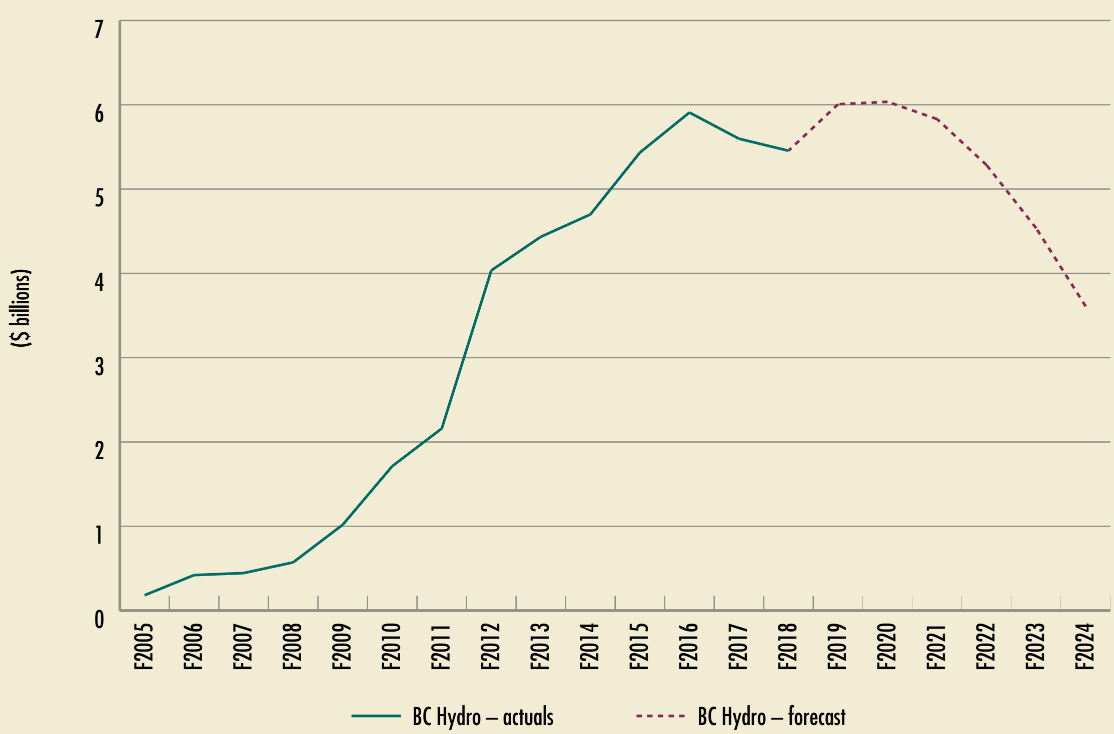
BC HYDRO USES RATE-REGULATED ACCOUNTING ATYPICALLY

BCUC sets BC Hydro's rates based on forecasted costs and revenues. Regulators sometimes use regulatory accounts to capture the difference between actual and budgeted costs, so that the difference can be recovered from (or refunded to) ratepayers through future rates.

BC Hydro has been using rate-regulated accounting, to varying degrees, since the 1980s. Through the 1990s, BC Hydro used a rate stabilization account (the difference between actual and forecast revenues) to reduce the volatility of its earnings and therefore balance out the rates it charged. In 2004, BC Hydro began to use regulatory accounts to capture variances in its cost of energy activities (for example, the difference between what it was expecting to pay for energy from Independent Power Producers and what it had to pay).

BC Hydro's use of regulatory accounts has increased significantly since the early 2000s. In fiscal 2005, BC Hydro had 10 regulatory accounts, with a net regulatory asset balance of $182 million. As of March 31, 2018, BC Hydro had 29 regulatory accounts, with a net regulatory asset balance of $5.455 billion (see Exhibit 4). BC Hydro expects to recover this from ratepayers in the future. For BC Hydro, this is an asset. For ratepayers, this is a debt.

Exhibit 4: Net regulatory asset balance at BC Hydro, fiscal years 2005-2024 ($ billions)



Source: Office of the Auditor General of British Columbia, based on BC Hydro's annual financial statements and F2017-F2019 Revenue Requirements Application.

BC HYDRO USES RATE-REGULATED ACCOUNTING ATYPICALLY

BC Hydro's net regulatory asset balance is significant when compared with those of other jurisdictions. Appendix B provides jurisdictional comparisons.

Government began to increase its direction of BC Hydro's rates and regulatory accounts in 2012. In 2011, BC Hydro had applied to BCUC for rate increases as part of its F2012-F2014 Revenue Requirements Application. Government did not agree that the rate increases were necessary, and it initiated a comprehensive review of BC Hydro that culminated in the release of a report in June 2011.

As a result of that review, BC Hydro submitted a revised application requesting lower rates. In May 2012, government directed BCUC to approve the lower rates and directed the creation and use of a number of BC Hydro's regulatory accounts, thereby deferring significant costs to future ratepayers.

INTERGENERATIONAL EQUITY

In rate-making, intergenerational equity is the principle that the benefits a current ratepayer receives should match the costs a current ratepayer pays; future generations should not be paying the costs that the current generation should be paying, or vice versa. Intergenerational inequity occurs when long-term costs are passed on to ratepayers who receive little or no benefit.

BCUC has noted that while there is no hard-and-fast rule, *intergenerational inequity* can occur when costs are passed on to future ratepayers by more than a few years.

This trend toward increasing direction from government continued ahead of BC Hydro's subsequent revenue requirements application, when government announced the 10 Year Rates Plan in November 2013. As part of this plan, government directed BCUC to approve the rates, and the costs and recoveries within BC Hydro's regulatory accounts, as specified by government in Directions 6 and 7. Government direction included the creation and use of the Rate Smoothing Regulatory Account (see sidebar). A list of government directions to BCUC and their impacts is included in Appendix C.

BC Hydro groups its regulatory accounts into a number of categories:

- **Variance accounts ($531 million):** At the beginning of a test period (the time between revenue requirements applications—usually two to three years), BC Hydro will project what it will spend or earn in specific business areas. Some of these cost items, such as storm maintenance costs and finance charges, can be difficult to forecast. These accounts defer to future periods the differences between what BC Hydro projects that it will spend or earn and what it actually spends or earns. The accounts are intended to carry positive or negative balances, depending on whether BC Hydro over- or under-forecasted its costs. BC Hydro uses three types of variance accounts: cost-of-energy, other-cash, and non-cash variance accounts. The recovery periods of these accounts vary, from less than five years, to longer periods of between 10 and 30 years.

BC HYDRO USES RATE-REGULATED ACCOUNTING ATYPICALLY

BC HYDRO'S RATE SMOOTHING REGULATORY ACCOUNT

The Rate Smoothing Regulatory Account (RSRA) was ordered by government, under Direction 7 in March 2014, and was created as part of government's 2013 10 Year Rates Plan. Unlike past rate-smoothing accounts used by BC Hydro, or those used in other jurisdictions, BC Hydro's current RSRA is not intended to smooth out the volatility of earnings due to unforeseen or unpredictable fluctuations in costs. Instead, the RSRA delays recovery of operating costs incurred in the current period because government did not allow BCUC to increase rates to reflect BC Hydro's current cost of service.

In essence, the account captures the revenue that BC Hydro requires through rates that it has not been permitted to charge because of government-imposed rate caps, and allows it to defer the collection of that revenue to future ratepayers. The balance of the RSRA has increased from $166 million in fiscal 2015, to $815 million as of fiscal 2018. BC Hydro expects the account to continue to increase significantly, but has indicated that it will be fully recovered from ratepayers by fiscal 2024. However, BC Hydro has not yet requested a formal recovery mechanism.

- **Benefits-matching accounts ($1.821 billion):** These accounts are designed to better match costs with benefits for different generations of ratepayers. The accounts recover costs for programs with longer-term benefits, such as a demand-side management program (e.g., Power Smart, or other programs that encourage people to use less power). These accounts have longer recovery periods.
- **Non-cash provision accounts ($727 million):** BC Hydro has three non-cash provision accounts, which were established in response to specific liabilities, such as First Nations land claims and environmental remediation costs. These accounts are described as "non-cash" and "provisions" because they represent costs that BC Hydro expects to pay in the future as a result of actions in the past. BC Hydro has not yet collected revenue from ratepayers to pay for these costs, or determined when the costs will be recovered. BC Hydro requests that these costs be included in rates when it intends to make actual cash expenditures against the liability.
- **Rate-smoothing accounts ($815 million):** BC Hydro currently has one rate-smoothing account, created as part of the 10 Year Rates Plan. BC Hydro has not yet requested recovery of the RSRA (see sidebar).
- **IFRS transition accounts ($1.561 billion):** BC Hydro has two IFRS transition accounts, which were designed to defer the impact of required changes in accounting treatment of

costs when BC Hydro moved from Canadian GAAP to "prescribed standards." They are recovered over longer periods (between 20 and 40 years). For a description of the IFRS Property, Plant and Equipment Regulatory Account, see sidebar.

For more information on BC Hydro's regulatory accounts, please see Appendix D.

BC HYDRO'S IFRS PROPERTY, PLANT AND EQUIPMENT REGULATORY ACCOUNT

The IFRS Property, Plant & Equipment (IFRS PP&E) Regulatory Account was ordered to be created by government in 2012, as part of BC Hydro moving from Canadian GAAP to "prescribed standards". Unlike Canadian GAAP, IFRS does not allow the capitalization of indirect overhead costs (such as maintenance to an IT system, or human resource costs) and requires that these be charged to operating expenses. However, BC Hydro is phasing in its transition to IFRS accounting for these costs over a 10 year period. In fiscal 2012, 100% of these indirect annual overhead costs were deferred (approximately $220 million). Starting in fiscal 2013, the proportion of these costs that were deferred was reduced by 10% - so 90% of the annual costs were deferred in fiscal 2013 with 10% being charged to operating expenses. The account had a balance of $221.8 million in fiscal 2012, is expected to grow to $1.079 billion by fiscal 2020, and be fully recovered by fiscal 2061. As of fiscal 2018 the account balance was $1.025 billion.

RATE-REGULATED ACCOUNTING AT BC HYDRO HAS A FINANCIAL IMPACT

Rate regulation and rate-regulated accounting have a financial impact on ratepayers and BC Hydro.

Rate regulation affects the timing of rate increases required under cost-of-service regulation. The primary impact of government intervention in rate regulation has been to minimize rate increases to BC Hydro ratepayers in the short term. Government has intervened in the rate-setting process by prescribing specific rates or rate caps below the rates that BC Hydro requires to recover its cost of service. This means that BC Hydro will need to recover the balance through future rate increases, which will have a negative impact on intergenerational equity. Generally, the principles of cost of service and intergenerational equity mean that costs associated with current ratepayers should be paid by those ratepayers, and costs associated with future ratepayers should be paid by future ratepayers.

In the absence of rate-regulated accounting, current rates would be higher than they are today, but it is difficult to determine by exactly how much. As of March 31, 2018, BC Hydro reported a total net regulatory asset of $5.455 billion, which is what ratepayers owe. To put this into context, this equates to approximately 87% of BC Hydro's total revenue for that year. A number of these account balances are already being recovered through current rates, while other account balances continue to build up a balance.

BC HYDRO USES RATE-REGULATED ACCOUNTING ATYPICALLY

Exhibit 5 shows what ratepayers owe BC Hydro—both in total by customer class and per customer. This is for illustrative purposes only—the actual amounts to be collected, from which groups, and over what time period, will vary as the net regulatory asset balance changes.

Rate regulation affects the timing of the regulated entity's future cash flows, which in turn affects the financial viability of the regulated utility. For example, if the regulator defers recovery of a utility's costs indefinitely, the regulated entity may not have sufficient revenues to meet its present obligations (and would then be insolvent, or require taxpayer-supported government funding).

Similarly, rate-regulated accounting affects how financially viable the entity appears in its financial statements. This is because rate regulation can defer costs and revenues that would otherwise be reflected in BC Hydro's general operations.

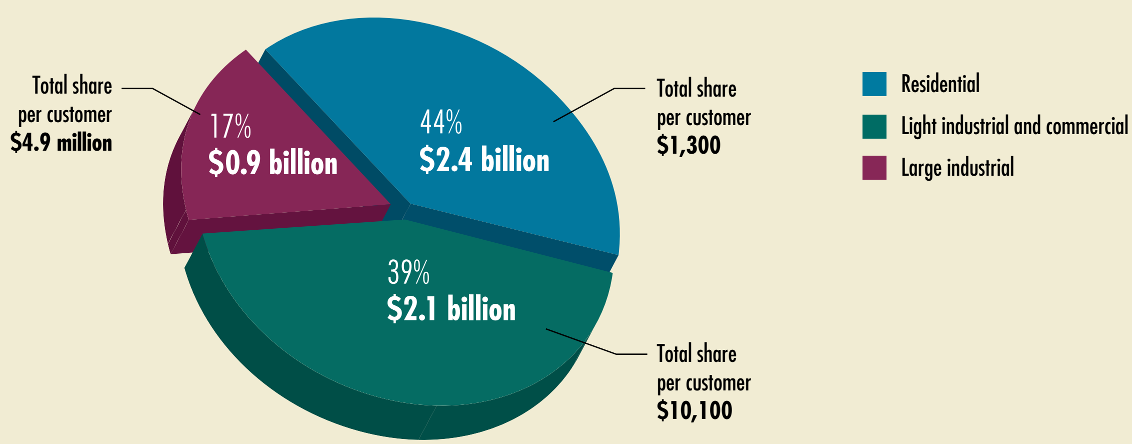
We considered the impact of BC Hydro's rate-regulated accounting in relation to:

- shareholder equity
- debt

Shareholder equity

Shareholder equity represents the net value of a utility, or the amount that would be returned to shareholders if all the utility's assets were liquidated and all its debts were repaid (this represents the book value of the utility, as recorded on the balance sheet, rather than the fair value or market value of the company—i.e., the amount that would be obtained if the company were actually sold). It is a common way to measure financial health.

Exhibit 5: Customer class share of BC Hydro's $5.455 billion net regulatory asset balance, fiscal 2018



Source: Office of the Auditor General of British Columbia, based on BC Hydro's fiscal 2018 annual financial statements and service plan report.

BC HYDRO USES RATE-REGULATED ACCOUNTING ATYPICALLY

The Province of British Columbia is the sole shareholder of BC Hydro. Exhibit 6 shows that BC Hydro's reported shareholder's equity has been steadily increasing, with regulatory accounts being included (green line). However, assuming the rates remained the same, the exhibit also shows the impact on shareholder's equity without regulatory accounts (red line). As can be seen, without regulatory accounts the impact on equity would have been significant.

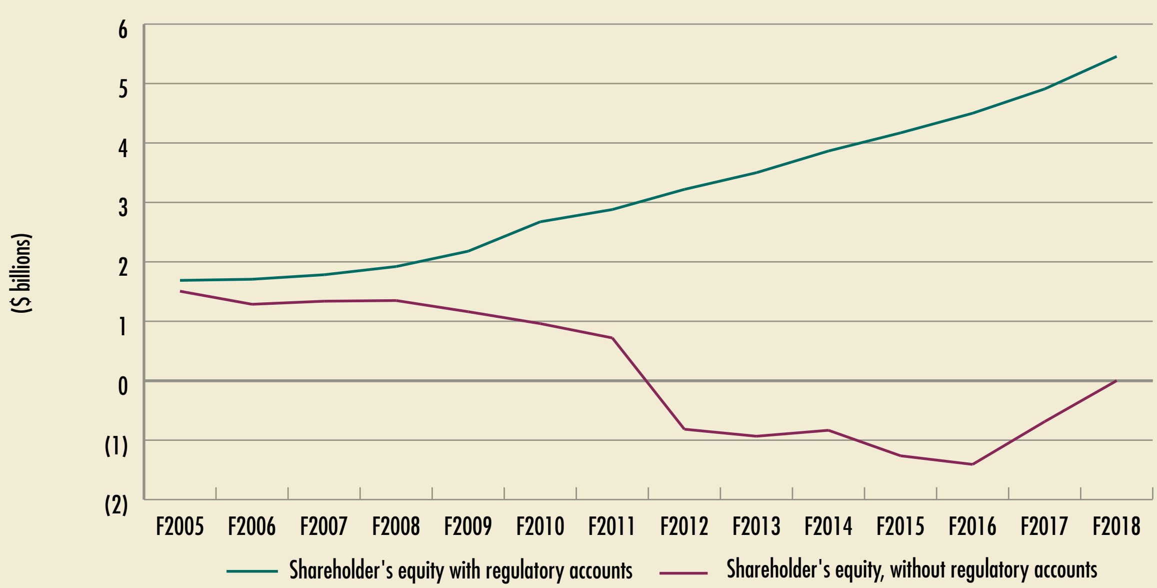
Government and BC Hydro have advised that in the absence of regulatory accounts, the likely outcome would have been higher rate increases while maintaining an appropriate level of equity.

Debt

BC Hydro borrows money to pay for capital items, such as building Site C or upgrading the John Hart generating station. It also needs to borrow money when revenues are insufficient to cover operating costs.

BC Hydro's regulatory assets have largely been financed by debt, rather than equity. This is because regulatory assets represent costs incurred by BC Hydro that it has not yet recovered in rates from ratepayers. This means that revenue generated from current rates is insufficient to cover current costs, which must be paid for through either equity or debt. (The exception is non-cash accounts, which have not yet resulted in money being spent.)

Exhibit 6: Impact on shareholder's equity, fiscal years 2005-2018 ($billions)



Source: Office of the Auditor General of British Columbia, based on BC Hydro's annual financial statements.

BC HYDRO USES RATE-REGULATED ACCOUNTING ATYPICALLY

Because BC Hydro does not track the financing of individual regulatory accounts on an account-by-account basis, it is difficult to determine exactly how much of BC Hydro's net regulatory asset is financed through debt. BC Hydro's growth in debt and its net regulatory asset balance suggests that BC Hydro is borrowing the money that it has not yet been able to recover from ratepayers.

WE ISSUED A QUALIFIED OPINION BASED ON RATE-REGULATED ACCOUNTING

For fiscal 2017, we issued a qualified audit opinion (see sidebar) on government's summary financial statements. We noted that although a third-party regulator is in place (BCUC), government has issued a number of directions to the regulator that must be followed in the rate-setting process. The result is that government is directing its own bottom line. When we issued the qualification, we did not quantify this inappropriate use of rate-regulated accounting and instead noted that net earnings, equity and other comprehensive income had been overstated in government's summary financial statements.

For fiscal 2018, we looked again at government's application of rate-regulated accounting at BC Hydro as part of our annual summary financial statement audit. Specifically, we looked at whether BC Hydro met the criteria under IFRS 14 and ASC 980 for applying rate-regulated accounting and how this impacted government's summary financial statements.

WHY DO AUDITORS ISSUE OPINIONS?

Audit opinions are an auditor's way of communicating whether the financial statements of an entity are presented fairly. Audit opinions explain any concerns auditors have with the quality and accuracy of financial reporting.

A clean audit opinion—one that doesn't have any qualifications—indicates that the financial statements can be held to a higher level of reliability than those with qualifications. A qualification should be rare. When auditors do issue a qualified opinion, they are usually expressing concerns about the entity's compliance with GAAP. GAAP creates consistency in financial reporting and allows the financial statements of the province to be more easily compared with those of other Canadian jurisdictions.

We consulted with staff from BC Hydro, the Ministry of Finance and BCUC, as well as subject matter experts and other relevant parties. We reviewed a number of related pronouncements, accounting texts and guidance from accounting firms.

For fiscal 2018, we concluded that when BC Hydro's results, as consolidated in government's summary financial statements, are assessed using a GAAP framework rather than the framework prescribed by government ("prescribed standards"), it doesn't meet the requirements for a rate-regulated entity under IFRS 14 and ASC 980 (discussed in greater detail

BC HYDRO USES RATE-REGULATED ACCOUNTING ATYPICALLY

below). As a result, we qualified government's financial statements and noted that recognition of BC Hydro's regulatory account balances should be removed from government's summary financial statements.

In fiscal 2017, government disagreed with us and made no change to the summary financial statements. In fiscal 2018, government reduced BC Hydro's net balance in its summary financial statements by $950 million. Government noted that it made this adjustment in response to our qualification in fiscal 2017 to reflect its estimate of the impact of government direction on regulatory accounts at BC Hydro. As a result, our qualification for the summary financial statements was for $4.5 billion in fiscal 2018, rather than the $5.5 billion of regulatory accounts that BC Hydro has in its financial statements.

Criteria under IFRS 14 were not met

Under IFRS 14, a rate regulator may be a third-party body or a related party of the entity, including the entity's own governing board, if that body is required by statute or regulation to set rates both to reflect the interest of customers and to ensure the overall financial viability of the entity. (The need to balance these interests is a common theme in utility regulation.)

Sections 59–60 of the *Utilities Commission Act* (UCA) provide an appropriate framework for rate-setting consistent with the requirements under IFRS 14. Specifically, the UCA includes provisions to set rates that are just, reasonable and not unduly discriminatory. This means that BCUC must set rates that are fair and reasonable for the service provided and provide the utility with the opportunity to earn a fair return.

However, when government issues a direction under Section 3 of the UCA, the direction is not required to comply with the framework under Sections 59–60. Instead, BCUC is required to follow government direction despite any other provision under the UCA. This means that government can circumvent both the rate-setting framework meant to ensure that rates are set according to established regulatory principles, and the provisions required under IFRS 14. BCUC has been hampered by significant government direction since 2012 and has been directed to approve BC Hydro's rates and costs as determined by government.

Criteria under ASC 980 were not met

U.S. GAAP requires entities to apply ASC 980 if they meet all of the following criteria:

- Rates are established by an independent third-party regulator or the entity's own governing board.
- Rates are designed to recover costs of service.
- Rates designed to recover costs can be charged to and collected from customers.

We found that BC Hydro did not meet the first two criteria.

First, rates have largely been determined by government, rather than an independent third-party regulator (BCUC) or BC Hydro's own governing board (which is not empowered to establish rates for BC Hydro). Government set BC Hydro's rates for fiscal 2012–2016, and imposed rate caps for fiscal 2017–2019.

BC HYDRO USES RATE-REGULATED ACCOUNTING ATYPICALLY

Second, rates have not been set within a framework that is designed to recover BC Hydro's costs of service. This is not a criticism of BCUC but an observation that its discretion has mostly been usurped. Government has directed BC Hydro's revenues, expenses and, in effect, its own bottom line. For example:

- Government has set BC Hydro's net income, which is directly consolidated into the surplus in government's summary financial statements. BC Hydro's profitability is no longer connected to risk or performance.
- BC Hydro has also been directed by government to defer its annual revenue shortfall into the Rate Smoothing Regulatory Account, resulting in the premature recognition of revenue and higher annual net income than would otherwise result.
- Rates have not been designed to ensure that each customer class pays its appropriate share of the costs (that is, residential customers are underpaying and commercial customers are overpaying), and BCUC has not had the authority to rebalance the rate design of customer classes because of government direction.

If BC Hydro did not use rate-regulated accounting, it would recognize costs as incurred and recognize revenue based on the rates charged to ratepayers. Rates set below BC Hydro's estimated cost of service in a given year would reduce the profit earned by BC Hydro in that period. However, government directed BCUC to set rates that required BC Hydro to achieve $698 million in annual profit for fiscal 2018, and $712 million in annual profit for fiscal 2019 onward. Without the use of rate-regulated accounting, BC Hydro would only be able to achieve this annual profit by reducing costs or increasing rates.

RATE-REGULATED ACCOUNTING AT BC HYDRO IS CHANGING

Government, in response to our fiscal 2017 qualification on rate-regulated accounting, made an adjustment of $950 million to the fiscal 2018 summary financial statements. Government reduced BC Hydro's net regulatory asset balance and net income by $950 million in government's summary financial statements. As a result, our qualification was for $4.5 billion, rather than BC Hydro's net regulatory asset balance of $5.5 billion.

BC Hydro's rate-regulated assets must be recovered, and this impacts ratepayers. It is not for our office or government to determine the size and scope of BC Hydro's rate-regulated account balances or how they are recovered. While government's adjustment to the summary financial statements was a positive step, we note that the ability of BCUC to regulate BC Hydro and its regulatory accounts remains hampered by government direction. On November 7, 2018, government rescinded the regulation that required BC Hydro to follow "prescribed standards." We continue to emphasize the importance of the role of BCUC in determining allowable costs and rates, and the use of regulatory accounts. Our recent report, *Observations on the BC Utilities Commission*, highlighted the fact that a

BC HYDRO USES RATE-REGULATED ACCOUNTING ATYPICALLY

number of the recommendations from government's 2014 task force remain outstanding, including those relating to BCUC's capacity to regulate.

In June 2018, government announced a comprehensive review of BC Hydro, in two phases. The first phase looks at the regulatory model for BC Hydro, including rate-regulated accounting. The report is expected to be released in early 2019. Government has advised us that it recognizes the importance of the role of BCUC and is determining how to best balance the needs of ratepayers, the government and BC Hydro.

BCUC TASK FORCE

In 2014, the provincial government appointed an independent task force to review BCUC with the goal of increasing its effectiveness and efficiency. The task force issued its final report on November 14, 2014. The task force identified seven key findings for restoring a "strong and independent BCUC" and made 35 recommendations for government and BCUC.

APPENDIX A: ACCOUNTING STANDARDS

IFRS 14 AND ASC 980 are both discussed in the body of this report. Additional information on these accounting standards is provided here.

International Financial Reporting Standards (IFRS)

The International Accounting Standards Board (IASB) issued IFRS 14 in January 2014 as a temporary standard until the IASB completes its project on rate-regulated activities. The purpose of the standard is to allow rate-regulated entities to continue using their previous generally accepted accounting principles (GAAP) for rate-regulated activities (provided they meet certain scope requirements) when they adopt IFRS. IFRS 14 includes additional presentation and disclosure requirements, but relies on the entity's previous GAAP for recognition and measurement criteria.

IFRS 14, *Regulatory Deferral Accounts*, permits first-time adopters of IFRS to continue using rate-regulated accounting in accordance with their previous GAAP, provided that the entity:

- "conducts *rate-regulated activities*; and
- recognized amounts that qualify as regulatory deferral account balances in its financial statements in accordance with its previous GAAP."

Rate-regulated activities refers to activities within a price-setting framework subject to oversight or approval by a rate regulator. Under IFRS 14, a rate regulator may be a third-party body or a related party of the entity, including the entity's own governing board, if that body is required by statute or regulation to set rates both in the interest of the customers and to ensure the overall financial viability of the entity. The need to balance these interests is a common theme in utility regulation.

Entities subject to rate regulation were required to adopt IFRS 14 for annual periods beginning on or after January 1, 2016 (earlier adoption was permitted). BC Hydro's fiscal year runs from April 1 to March 31. This means that BC Hydro was required under Canadian GAAP to adopt IFRS 14 by April 1, 2016 (fiscal 2017). However, it did not do so.

Rate-regulated accounting under Canadian GAAP

In 2011, Canadian GAAP was replaced with IFRS as the accounting framework for publicly accountable enterprises in Canada. Prior to 2011, Canadian GAAP allowed entities to recognize regulatory assets and liabilities in a manner similar to ASC 980 under U.S. GAAP.

The Canadian Accounting Standards Board deferred the mandatory adoption of IFRS standards by rate-regulated entities, including utilities, from 2011 to 2014. As a result, Canadian rate-regulated entities have applied a greater diversity of accounting frameworks. For example:

- Some entities transitioned to IFRS and discontinued rate-regulated accounting before IFRS 14 was issued; IFRS 14 does not allow them to reapply rate-regulated accounting.

APPENDIX A

- Some entities transitioned later, allowing them to adopt IFRS 14, and continued to recognize rate-regulated accounting in accordance with their previous GAAP.
- Some entities chose to follow U.S. GAAP in full, which includes ASC 980.

In 2016, the Canadian Accounting Standards Board[1] reported that there were approximately 125 rate-regulated entities in Canada. Nationally, there are two types of rate-regulated entities: government-owned and investor-owned entities. Government-owned entities include public sector entities classified as either a government business enterprise (GBE) or an "other government organization." Investor-owned entities are publicly or privately held companies. Most investor-owned entities apply U.S. GAAP rather than IFRS, while GBEs tend to apply IFRS.

GOVERNMENT BUSINESS ENTERPRISE DEFINED

A government business enterprise (GBE) is an organization that has all of the following characteristics:

1. It is a separate legal entity that has the power to contract in its own name and that can sue and be sued.
2. It has been delegated the financial and operational authority to carry on a business.
3. It sells goods and services to individuals and organizations outside of the government reporting entity as its principal activity.
4. It can, in the normal course of its operations, maintain its operations and meet its liabilities from revenues received from sources outside of it.

U.S. GAAP and ASC 980

ASC 980, *Regulated Operations*, is the primary source of guidance for rate-regulated accounting under U.S. GAAP.

U.S. GAAP has recognized rate-regulated accounting since the 1960s. In 1982, the United States Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (FAS) No. 71, *Accounting for the Effects of Certain Types of Regulation*. FASB subsequently issued a number of amendments and related guidance, including:

- FAS 90, *Accounting for Abandonments and Disallowances of Plant Costs* (1986)
- FAS 92, *Accounting for Phase-in Plans* (1987)
- FAS 101, *Accounting for the Discontinuation of Application of FASB Statement No. 71* (1988)

ASC 980 replaced FAS 71 in 2009. FAS 71, subsequent amendments and related guidance were incorporated into ASC 980.

Organizations subject to U.S. GAAP are required to apply ASC 980 if they meet the following criteria (this is not optional):

- Rates are established by an independent third-party regulator or the entity's own governing board.

[1] For more information, see *Rate-Regulated Activities* that discusses "results of research on the decision-usefulness of financial information that reflects the economics of rate-regulated activities."

APPENDIX A

- Rates are designed to recover costs of service.
- Rates designed to recover costs can be charged to and collected from customers.

Assessing applicability of ASC 980 at the entity level can be complex and is an area of significant professional judgment. When assessing whether an entity meets the criteria for rate-regulated accounting, it is important to consider the substance of the regulation, rather than the form. That is, the spirit and intent of the regulation should be followed, rather than a more literal interpretation.

ASC 980-20-15-2 provides a number of examples where an entity may need to discontinue application of rate-regulated accounting, including:

a) "Deregulation

b) A change in the regulator's approach to setting rates from cost-based rate-making to another form of regulation

c) Increasing competition that limits the entity's ability to sell utility services or products at rates that will recover costs (as used in paragraph 980-10-15-2)

d) Regulatory actions resulting from resistance to rate increases that limit the entity's ability to sell utility services or products at rates that will recover costs if the entity is unable to obtain (or chooses not to seek) relief from prior regulatory actions through appeals to the regulator or the courts."

A number of related pronouncements, accounting texts and guidance from accounting firms reiterate these points and provide additional examples that may result in ASC 980 no longer applying. The most significant of these are:

- rate freezes, price caps and deferred recovery plans
- inability to earn allowed or reasonable rates of return
- use of prohibited phase-in plans

Regulatory assets and liabilities

For recognition as a regulatory asset, costs must be incurred and probable of recovery through future revenue. *Incurred* means that the cost arises from cash paid out or an obligation to pay for an acquired asset or service. *Probable* means that recovery is likely to occur. A rate order specifying the nature of the cost, recovery mechanism and timing is generally the best evidence that a regulatory asset is probable of recovery.

ASC 980 does not provide detailed guidance on the types of accounts or regulatory assets that are permitted, but some costs are explicitly prohibited from deferral, such as:

- costs associated with a phase-in plan (deferred depreciation)
- allowance for earnings on shareholder investments (except in limited situations)

A regulator can also impose a regulatory liability on the entity, such as:

- refunds to customers
- current rates to recover future costs
- adjustment to allowable costs to customers over future periods

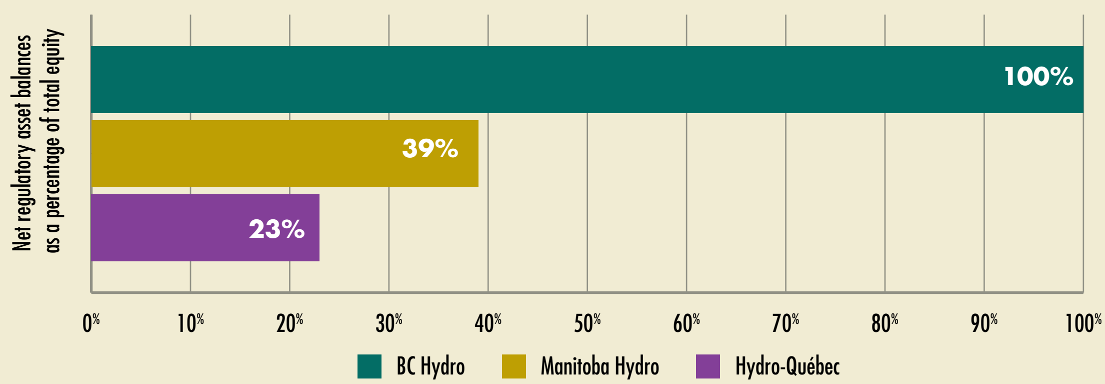
APPENDIX B: OTHER JURISDICTIONS

THIS APPENDIX LOOKS at other rate-regulated entities in Canada to provide some context for BC Hydro's use of regulatory accounts. Regulators, utilities, accounting firms and credit rating agencies often analyze other jurisdictions when establishing a new regulatory account or assessing the impact of an entity's regulatory account balances on the financial health of the entity.

As costs increase, regulators may choose to raise rates or defer these costs for future recovery. Each year, Hydro-Québec publishes a report comparing electricity prices across major North American cities. However, there is no equivalent report comparing regulatory account balances.

We reviewed a number of regulated utilities in Canada, and found that BC Hydro's net regulatory asset balance was comparatively quite large. In the exhibits below, we focused on comparable vertically-integrated, government-owned, hydro-electric utilities. As illustrated in Exhibits 7, 8 and 9, BC Hydro's net regulatory asset balance as a percentage of total equity, total assets, and total revenue, are significantly higher than those of Hydro-Québec and Manitoba Hydro.

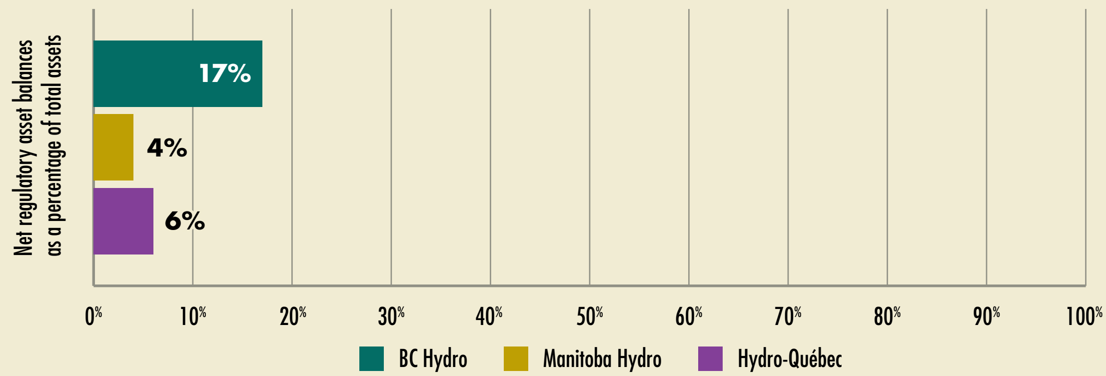
Exhibit 7: Comparison of net regulatory asset balances as a percentage of total equity for B.C., Quebec and Manitoba hydro-electric utilities (fiscal years 2017-2018)



Source: Office of the Auditor General of British Columbia, based on fiscal years 2017 and 2018 financial statements.
Note: Hydro-Québec fiscal year-end is December 31, 2017. BC Hydro and Manitoba Hydro fiscal year-ends are March 31, 2018.

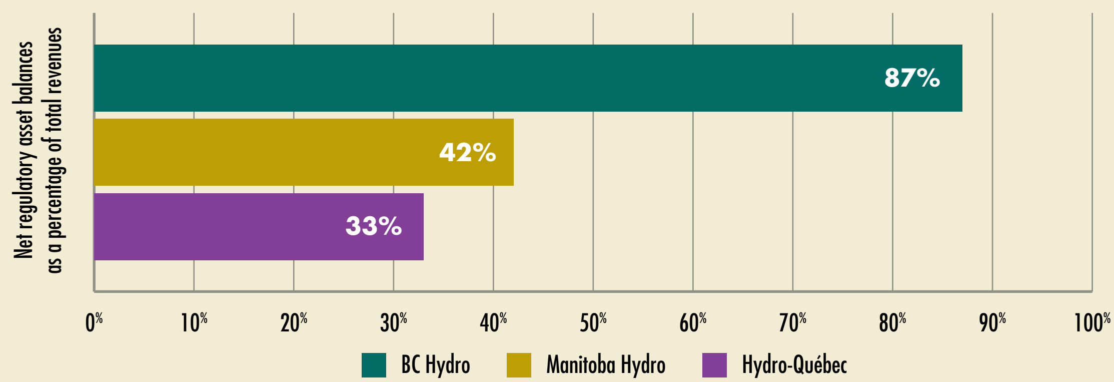
APPENDIX B

Exhibit 8: Comparison of net regulatory asset balances as a percentage of total assets for B.C., Quebec and Manitoba hydro-electric utilities (fiscal years 2017-2018)



Source: Office of the Auditor General of British Columbia, based on fiscal years 2017 and 2018 financial statements.
Note: Hydro-Québec fiscal year-end is December 31, 2017. BC Hydro and Manitoba Hydro fiscal year-ends are March 31, 2018.

Exhibit 9: Comparison of net regulatory asset balances as a percentage of total revenues for B.C., Quebec and Manitoba hydro-electric utilities (fiscal years 2017-2018)



Source: Office of the Auditor General of British Columbia, based on fiscal years 2017 and 2018 financial statements.
Note: Hydro-Québec fiscal year-end is December 31, 2017. BC Hydro and Manitoba Hydro fiscal year-ends are March 31, 2018.

APPENDIX C: GOVERNMENT DIRECTION

BC HYDRO PRESENTED the following table to BCUC in July 2016 as part of its F2017-F2019 Revenue Requirements Application. As explained by BC Hydro, this provides a summary of the legislation and direction that guides BCUC's decision making in the regulatory process for the F2017-F2019 period.

Exhibit 10: Key regulatory statutes

Policy Area	Synopsis	Source
BCUC Review Exemptions	BC Hydro is exempt from sections 45 to 47 and 71 (Certificate of Public Convenience and Necessity & Energy Supply Contracts) of the *UCA* to the extent applicable, with respect to the following projects, programs, contracts and expenditures of BC Hydro: ◆ The Northwest Transmission Line ◆ Mica Units 5 and 6 ◆ Revelstoke Unit 6 ◆ Site C Clean Energy Project ◆ A bio-energy Phase 2 call to acquire up to 1 000 gigawatt hours per year of electricity ◆ One or more agreements with pulp and paper customers eligible for funding under Canada's Green Transformation Program ◆ The clean power call request for proposals ◆ The standing offer program.	*Clean Energy Act*
BCUC Review Exemptions	Section 32 of the *BC Hydro Power and Authority Act* exempts BC Hydro from sections 50, 51 (c), and 52 of the *UCA* with respect to the need for BCUC approval to issue securities, including the setting of interest rates for those securities, or for the disposition of property.	*BC Hydro Power and Authority Act*
Return on Equity	BC Hydro's rate of return on equity will remain at 11.84 per cent for fiscal 2017. For fiscal 2018 and fiscal 2019 BC Hydro will earn the return on equity that is required to yield a distributable surplus (essentially net income) in fiscal 2018 and in future years equal to the previous years net income plus BC inflation.	Direction 7
Dividend	Special Direction HC1 sets out the dividend calculation for BC Hydro.	Special Direction HC 1
Deferral Account Rate Rider	BCUC must set the deferral account rate rider for fiscal 2015 and future fiscal years at 5% and may not change the rider except on application by BC Hydro.	Direction 7
Powerex	BCUC may not exercise any power under Part 3 of the *UCA* in regard to the gas and electricity trading activities of Powerex Corp.	Direction 7

APPENDIX C

Policy Area	Synopsis	Source
Expenditures for Export	BCUC must refrain from performing its duty under section 4 (5) of the *Clean Energy Act* when setting rates for BC Hydro for F2014, F2015, F2016, F2017, F2018 and F2019. Section 4(5) of the *Clean Energy Act* states: "(5) In setting rates for BC Hydro, the BCUC must ensure that the rates do not allow the authority to recover: (a) its expenditures for export as set out in a report approved by the Lieutenant Governor in Council under subsection (4), and (b) any other expenditures for export."	Direction 7 Order in Council 539
Rates Smoothing Account	BCUC must not allow BC Hydro's rates to increase by more than: ◆ 4% in F2017, ◆ 3.5% in F2018 or ◆ 3% in F2019 If the base line rate change exceeds the above values, the BCUC must order BC Hydro to defer to the rate-smoothing regulatory account the forecast revenue that BC Hydro earns minus the forecast revenue that BC Hydro would have earned from the above rate increases.	Direction 7
Cost Recovery	When setting rates for BC Hydro under the *Utilities Commission Act,* the BCUC must not disallow the recovery in rates of the costs that were incurred by BC Hydro with respect to: ◆ Construction of extensions to BC Hydro's plant or system that come into service before F2017 ◆ Energy supply contracts entered into before F2017 ◆ The Rock Bay Settlement ◆ The First Nations Settlement ◆ The California Settlement ◆ The Burrard Costs ◆ The costs deferred to the SMI Regulatory Account	Direction 7
Thermal-Mechanical Pulping Program	BCUC must not disallow for any reason the recovery of rates of the costs incurred by the authority in carrying out the Thermal-Mechanical Pulping program. The costs recovered by rates cannot exceed $100 million. BC Hydro is to defer to the Demand-Side Management Regulatory Account costs incurred as a result of carrying out the Thermal-Mechanical Pulping program.	Order in Council 404

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<table>
<thead>
<tr><th>Policy Area</th><th>Synopsis</th><th>Source</th></tr>
</thead>
<tbody>
<tr>
<td>Regulatory Accounts</td>
<td>When setting rates for BC Hydro, the BCUC:

Must allow BC Hydro to continue to defer heritage deferral account variances between the actual and forecast heritage payment obligation.
Must allow BC Hydro to continue to defer to the trade income deferral account the variances between actual and forecast trade income.
Must, in regard to the non-heritage deferral account, allow BC Hydro to defer variances between actual and forecast cost of energy arising from differences between actual and forecast domestic customer load, and Burrard costs.
Must, in regard to the Demand-Side Management Regulatory Account, allow BC Hydro to defer to that account BC Hydro's cost arising from demand-side management programming, with the account having a 15 year amortization.
Must allow BC Hydro to continue to defer to the Rock Bay remediation account the Rock Bay costs.
Must allow BC Hydro to continue to defer to the asbestos remediation account the asbestos costs.
Must allow BC Hydro to continue to defer to the non-current pension costs regulatory account the non-current costs.
Must allow BC Hydro to establish the following regulatory accounts:

An account to defer for recovery in rates in future fiscal years of BC Hydro those portions of the BC Hydro's allowed revenue requirement in a particular fiscal year that were not recovered in rates in that particular fiscal year;
An account to defer the variances between BC Hydro's actual and forecast real property gain/loss.

Must allow the First Nations costs and real property sales regulatory accounts to accrue interest in a fiscal year at BC Hydro's weighted average cost of debt in that year.
Must set BC Hydro's rates in such a way as to allow the regulatory accounts to be cleared from time to time and within a reasonable period.

</td>
<td>Direction 7</td>
</tr>
<tr>
<td>Mining Customers</td>
<td>BCUC must allow BC Hydro to establish a regulatory account to defer to future fiscal years amounts equal to the sum of the impaired account balances of mining customers (refer to Order in Council for definition of eligible). This account will include interest charges determined in a fiscal year at a rate equal to BC Hydro's weighted average cost of debt in that fiscal year.</td>
<td>Order in Council 123</td>
</tr>
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</table>

APPENDIX D: BC HYDRO'S REGULATORY ACCOUNTS

AS OF MARCH 31, 2018, BC Hydro had 29 regulatory accounts, with a net regulatory asset balance of $5.455 billion.

BC Hydro has a number of different types of regulatory accounts, based on the nature of costs being deferred:

- **Cost-of-energy variance accounts**: These accounts capture the differences between BC Hydro's forecasted and actual costs or revenues for its three cost-of-energy accounts. They are recovered through the Deferral Account Rate Rider, which is a 5% surcharge applied to bills for BC Hydro customers.
- **Other-cash variance accounts**: BC Hydro forecasts various non-energy-related costs at the beginning of a test period. These variance accounts capture the differences between forecasted and actual costs. BC Hydro intends to recover these accounts in the following test period, usually two to three years.
- **Non-cash variance accounts**: These accounts capture the differences between forecasted and actual costs that are non-cash in nature. Recovery mechanisms vary, but the accounts are generally recovered over a longer period (between 10 and 30 years).
- **Benefits-matching accounts:** These accounts are designed to match costs with benefits for different generations of ratepayers. The accounts recover costs for programs with longer-term benefits, such as a demand-side management programs (e.g. Power Smart, or other programs that encourage people to use less power). These accounts have longer recovery periods (between 10 and 15 years, and 45 years in the case of one account).
- **Non-cash provision accounts:** BC Hydro has three non-cash provision accounts, which were established in response to specific liabilities, such as First Nations land claims and environmental remediation costs. These accounts are described as "non-cash" and "provisions" because they represent costs that BC Hydro expects to pay in the future as a result of actions in the past. BC Hydro has not yet collected revenue from customers to pay for these costs or determined when the costs will be recovered. BC Hydro requests that these costs be included in rates when it intends to make actual cash expenditures against the liability.
- **Rate-smoothing accounts**: These accounts are used to smooth out required rate increases or the impact of a large one-time expenditure. BC Hydro has one rate-smoothing account but has not yet requested recovery of this account.
- **IFRS transition accounts:** These accounts capture some differences between what BC Hydro was unable to record as an asset following its transition from Canadian generally accepted accounting principles to the "prescribed standards." These accounts are being recovered over a long period of time (between 20 to 40 years).

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Exhibit 11: BC Hydro regulatory accounts, as of March 31, 2018

#	Account	F2018 balance ($M)	Description	Recovery mechanism	Recovery period
Cost-of-energy variance accounts					
1	Heritage Deferral Account	(103.6)	Defers cost variances associated with BC Hydro's hydroelectric facilities, along with costs associated with gas and electricity energy purchases.	Deferral Account Rate Rider	4–6 years
2	Non-Heritage Deferral Account	463.3	Defers cost variances associated with buying power from Independent Power Producers, unplanned major capital and maintenance costs, and changes in revenue from customer demand.	Deferral Account Rate Rider	4–6 years
3	Trade Income Deferral Account	126.8	Defers variances in income from trading activities outside of B.C. from Powerex, one of BC Hydro's subsidiaries.	Deferral Account Rate Rider	4–6 years
Other-cash variance accounts					
4	Storm Restoration Costs	46.5	Defers variances in costs for storm-related damage to BC Hydro's infrastructure (such as power lines or transformers).	Next test period	2–3 years
5	Amortization of Capital Additions	(5.2)	Defers variances when a project is planned, and when it actually comes into service and becomes a capital addition.	Next test period	2–3 years
6	Total Finance Charges	(139.4)	Defers variances in financing costs, such as the interest rate on a debt, over a period of time.	Next test period	2–3 years
7	Rock Bay Remediation	(20.0)	Defers variances between BC Hydro's forecasted and actual remediation costs.	Next test period	2–3 years

APPENDIX D

#	Account	F2018 balance ($M)	Description	Recovery mechanism	Recovery period
Other-cash variance accounts *(continued)*					
8	Arrow Water Systems	0.0	BC Hydro divested its assets for the Arrow Water systems, which were a collection of water systems built as part of BC Hydro's construction of the Keenleyside Dam. These costs were not included in BC Hydro's F2011 Revenue Requirements Application. This account captures those costs, along with annual costs paid to the Regional District of Central Kootenay.	Next test period	2–3 years
9	Remediation	(28.6)	Defers costs related to remediation of facilities for asbestos and polychlorinated biphenyl (PCB).	Next test period	2–3 years
10	Real Property Sales	37.7	Defers variances between what BC Hydro expects and what it will actually earn or lose from sales of certain surplus property.	Self-clearing	TBD
11	Dismantling Costs	35.3	Defers variances between costs BC Hydro incurs for dismantling a capital asset, such as a building.	Next test period	2–3 years
12	Customer Emergency Fund	0.1	A three-year pilot program that provides relief to certain residential customers; it will capture variances between forecasted and actual revenues and costs for the pilot program.	No recovery mechanism	TBD
13	Mining Customer Payment Plan	0.0	Mining companies may temporarily defer a portion of their electricity payments to BC Hydro. If any of these balances become impaired, and the mining company cannot repay the deferred electrical payments, then the balance is held in this account.	No recovery mechanism	TBD
Non-cash variance accounts					
14	Foreign Exchange Gains and Losses	(31.3)	Captures variances between forecasted and actual gains and losses on the foreign exchange market.	Straight-line pool method	10 years

APPENDIX D

#	Account	F2018 balance ($M)	Description	Recovery mechanism	Recovery period
Non-cash variance accounts *(continued)*					
15	Non-Current Pension Costs	303.4	Captures variances between forecasted and actual non-current pension costs (such as plan income and interest expense).	Expected average remaining service life	12 years
16	Post-Employment Benefit Current Pension Costs	3.3	Captures operating cost variances between BC Hydro's forecasted and actual current pension costs.	Next test period	2–3 years
17	Debt Management	(157.8)	BC Hydro has locked in low interest rates for some of its long-term debt. This account captures the gains and losses of these financial contracts.	Remaining term of associated long-term debt issuances	10 or 30 years
Benefits-matching accounts					
18	Demand Side Management	902.5	Defers costs associated with demand-side management programs and projects that promote energy conservation (such as materials, labour and support costs not eligible for capitalization).		15 years
19	First Nations Costs	104.3	Defers negotiation and settlement costs (such as lump sum and annual payments) with First Nations, and amortizes those costs over a 10-year period.		10 years
20	Site C	472.0	Captures pre-capitalization costs (certain legal and investigation costs), incurred between 2007 and 2015, before Site C was approved in 2014.	No recovery mechanism	TBD
21	Pre-1996 Contributions (CIA Amortization)	88.2	BC Hydro conducted a study that recommended changing the amortization for a certain class of assets from 25 years to 45 years. The F2007-F2008 Revenue Requirements Application, completed around the same time, kept these classes of assets at 25 years. This account captures the difference in the 25- and 45-year amortization.		45 years (to F2040)

APPENDIX D

#	Account	F2018 balance ($M)	Description	Recovery mechanism	Recovery period
Benefits-matching accounts *(continued)*					
22	Capital Project Investigation Costs	15.3	Before a project is approved and costs are capitalized, BC Hydro may investigate the project's feasibility. Under BC Hydro's previous accounting framework, these costs were treated as operating expenses. This account captured capital project investigation costs, deferring them over a 10-year period, beginning in 2012.		10 years (to F2021)
23	Smart Metering and Infrastructure (SMI) program	239.2	Defers operating costs (such as program, investigation and infrastructure costs) incurred by BC Hydro with respect to the SMI program.		15 years (to F2030)
Non-cash provision accounts					
24	First Nations Provisions	414.2	This provision account was established in relation to liabilities for First Nations land claims. When settlements are made, the amounts are reduced from the balance of this provision account. A corresponding transfer is then made to the First Nations regulatory account (described above). At that point, the costs added to the First Nations regulatory account may be recovered in rates.	Transfer	Uncertain
25	Environmental Provisions	309.6	This provision account relates to BC Hydro's liabilities for PCB and asbestos remediation. As costs are made for the remediation of BC Hydro's facilities, the balance of the Environmental Provisions account is drawn down. At that point, and depending on the nature of the costs, a corresponding transfer is made to the balance of the Remediation regulatory account or the Rock Bay remediation account.	Transfer	Uncertain

APPENDIX D

#	Account	F2018 balance ($M)	Description	Recovery mechanism	Recovery period
Non-cash provision accounts *(continued)*					
26	Arrow Water Provisions	2.9	This provision account relates to the divestiture of the Arrow Water system. As expenses are made for the Arrow Water system, it draws down the balance of this account, transferring that same amount into the Arrow Water system regulatory account.	Transfer	Uncertain
Rate-smoothing accounts					
27	Rate Smoothing	814.9	Captures the difference between what BC Hydro receives in revenue from rates and what it requires in revenue from rates. The difference is captured in the regulatory account and recovered over a 10-year period.	No recovery mechanism	10 years (to F2024)
IFRS transition accounts					
28	IFRS Property, Plant and Equipment (PP&E)	1,025.4	Under IFRS, BC Hydro is not able to capitalize indirect overhead costs (such as maintenance to an IT system, or human resource costs). BC Hydro is required to record these costs as an operating expense. This account instead defers these costs, transitioning them into operating expenses over a 10-year period.		40 years (to F2061)
29	IFRS Pension	535.4	Under Canadian GAAP, some pension and post-employment benefits costs were amortized to expenses over a number of years. Under IFRS, BC Hydro is required to record pension and post-employment benefits costs on the balance sheet. This account captures the differences in treatment of pension and post-employment costs at the time that BC Hydro changed its accounting policies under "prescribed standards."		20 years (to F2032)

Note: Assets are shown as positive, and liabilities are shown in brackets.

APPENDIX E: PAST WORK BY THE OFFICE OF THE AUDITOR GENERAL OF BRITISH COLUMBIA

IN 2011, THE OFFICE OF THE AUDITOR GENERAL released *BC Hydro: The Effects of Rate-Regulated Accounting*. The report considered BC Hydro's accounting practices, particularly those related to rate-regulated accounting, and the effects of these practices on the reported financial health of BC Hydro and its ability to match costs and benefits with different generations of customers.

At the time of our report, BC Hydro had a net regulatory asset balance of approximately $2.2 billion (fiscal 2011) – in other words, $2.2 billion in expenses had to be recovered from customers in future years. We found that although BC Hydro had some plans to recover these amounts, it lacked a comprehensive plan defining how these amounts would be recovered and over what time period. Thus, in our report, *we recommended that government determine, at the earliest opportunity, how BC Hydro would recover the net deferred costs in its regulatory accounts.*

In the period leading up to our 2011 report, Canadian accounting standards changed significantly. These changes required BC Hydro, as a government business enterprise, to adopt International Financial Reporting Standards (IFRS). At the time, IFRS did not allow the use of rate-regulated accounting. Government directed BC Hydro through BC Regulation 257/2010 to adopt a U.S. accounting standard that permits the use of rate-regulated accounting rather than adopting IFRS. At the time of our report, we were concerned that BC Hydro would continue to apply rate-regulated accounting, which may not be permitted in future years under Canadian GAAP. Therefore, in our report *we recommended that government prescribe that the annual financial statements for BC Hydro be prepared fully in accordance with Canadian generally accepted accounting principles.*

In March 2012, government provided us with a self-assessment of its progress in implementing the two recommendations our office made in 2011. Government said that it had "partially implemented" our first recommendation, as BC Hydro had filed a plan for the recovery of regulatory account balances from fiscals 2013 and 2014 with BCUC, as part of its amended F2012-F2014 Revenue Requirements Application. We noted, in our 2012 follow-up report on rate-regulated accounting at BC Hydro, that although we were encouraged by BC Hydro taking action to implement our recommendation, as well as the similar recommendation made by government in its review of BC Hydro, more detail could have been provided in the application to explain, and demonstrate, how BC Hydro would recover regulatory account balances from customers in future years. Our 2012 follow-up report also noted that government had taken no action on our second recommendation.

In our 2014 progress audit of rate-regulated accounting at BC Hydro, we reported that BC Hydro had made further progress on our recommendation related to recovery plans, and that our recommendation that government direction requiring BC Hydro to follow Canadian GAAP was no longer applicable. This second point was because the Canadian Accounting Standards Board had recently adopted IFRS 14, which permits first-time adopters of IFRS to continue using rate-regulated accounting, provided they meet certain requirements. Thus, rate-regulated accounting, when applied appropriately, was an acceptable practice under Canadian GAAP.

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