



**VIA EMAIL**

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May 3, 2016

**BC HYDRO INQUIRY OF EXPENDITURES**  
**SAP PLATFORM EXHIBIT A2-1**

Mr. Tom Loski  
Chief Regulatory Officer  
Regulatory & Rates Group  
British Columbia Hydro and Power Authority  
16<sup>th</sup> Floor – 333 Dunsmuir Street  
Vancouver, BC V6B 5R3

Dear Mr. Loski:

Re: British Columbia Hydro and Power Authority  
Inquiry of Expenditures related to the adoption of the SAP Platform  
British Columbia Utilities Commission Action on Complaint

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Commission staff submits the following document for the record in this proceeding:

December 8, 2016 letter of complaint from Adrian Dix, MLA, Vancouver-Kingsway regarding BC Hydro's Information Technology and Telecommunications 5 Year Plan

Yours truly,

*Original signed by:*

Laurel Ross

KB/cms  
Enclosure

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Room 201-Parliament Buildings  
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December 8<sup>th</sup>, 2015

Len Kelsey  
Chair and CEO  
BC Utilities Commission  
900 Howe St  
Vancouver, BC V6Z 2S9

**BC HYDRO INQUIRY OF EXPENDITURES**  
**SAP PLATFORM**                      **EXHIBIT**      **A2-1**

Dear Mr. Kelsey,

The BC Hydro Information Technology and Telecommunications 5 Year Plan originally tabled with the BCUC in the 2011 RRA submission is behind schedule, over-budget, failing to meet its targets and its most important component, the implementation of 6 SAP modules, is about half-finished.

This is according to BC Hydro documents and responses of the Minister of Energy in Question Period and Estimates debate during this spring's legislative session.

These dramatic failures in IT strategy, expenditures and implementation raise significant issues about BC Hydro's management. How can it be that a regulated utility such as BC Hydro could make such serious errors? The origins of this fiasco can be found in deliberate efforts by senior management to avoid its legal obligations to the BCUC and the public.

In reviewing BC Hydro Revenue Requirement Applications for the years 2009-2016, testimony before the commission, and other BC Hydro documents, I draw the following conclusions:

- 1) BC Hydro intentionally misled the BC Utilities Commission and the public with respect to BC Hydro Information Technology and Telecommunications 5 Year Plan <sup>1</sup> and in particular the decision to move to an SAP-based IT architecture. This will be clear from a plain reading of the evidence and is contained in the attached BC Hydro documents.

The impact of these violations of the BC Utilities Commission Act was to mislead the Commission and BC Hydro ratepayers as to risks and costs associated with \$400 million dollars in proposed spending - a plan that BC Hydro now admits has significant failures. It is unclear whether the BC Hydro Board of Directors was similarly misled or whether the Board participated in these actions.

2) BC Hydro committed an offence by violating Section 106 (1) (c) (i), Section 106, (1) (c) (ii), Section 106 (1) (c) (iii) and that BC Hydro Management staff violated Section 206 (1) (d) (i), Section 106 (1) (d) (ii), Section 106 (1) (d) (iii) and Section 106 (1) (d) (iv) in the 2009 RRA hearing and since. <sup>2</sup>

3) BC Hydro further hid elements of the IT Plan from the BC Utilities Commission by breaking up programs and projects in the IT Plan into smaller projects under the financial threshold where they would trigger a BCUC review of the program or projects.

The consequences of these actions have been serious and negative for BC Hydro ratepayers, employees, the BC Utilities Commission, the government and BC Hydro itself.

In forwarding this letter to you, copied to Ms. Jessica MacDonald, President and CEO of BC Hydro, and to Honourable Bill Bennett, Minister of Energy and Mines. I am asking that action be taken to hold BC Hydro and its senior management accountable under the BC Utilities Act for these offences and ensure a proper and fully independent review by the BCUC of BC Hydro's disastrous Information Technology strategies.

#### **BC Hydro Misleads the BC Utilities Commission on Information Technology Expenditures.**

1) BC Hydro submitted its 2009-2010 Revenue Requirements Applications on **February 20, 2008**. This included a planned IT Capital Plan totaling \$46.8 million in Fiscal 2009 and \$40.5 million in Fiscal 2010. The plan includes a summary of IT Capital expenditures from 2007-10 (Appendix I of the 2009-2010 RRA) and summaries of expenditures in excess of \$5 million including the Enterprise Financials Upgrade initiative (Appendix J). <sup>3</sup>

The Enterprise Financial Upgrade project summary explicitly rejects moving to an SAP platform for this component as "the cost to re-platform to SAP would be between \$30 million to \$40 million and would require a significant dedication of management and staff resources, thereby delaying other important BC Hydro projects. Migration would likely take between 2 and 3 years. While operational saving of \$0.4 million annually would be available for vendor maintenance with SAP, the cost of licensing would be approximately \$10 million. Overall, this option is not considered appropriate for BC Hydro."

The recommended option for the Enterprise Financials Upgrade in Appendix J of the 2009-2010 RRA is PeopleSoft Financials costing \$7.2 million.

2) On **May 12, 2008**, BC Hydro's Executive Team endorsed an Information Technology and Telecommunications Strategy document that reversed the IT&T strategy contained in the 2009-2010 RRA submission.<sup>4</sup> The resolutions from the May 12, 2008 meeting were subsequently presented and approved by the Audit and Finance Committee of the Board of Directors on **May 23, 2008**.<sup>5</sup> These decisions were the basis for a fundamental shift in IT architecture and strategy at BC Hydro and more than double the proposed annual IT capital spend. (As of April 2015, only 3 of the 6 SAP modules have been implemented at BC Hydro.)

The document and resolution passed by the Executive Team and Audit and Finance proposed a single SAP system for BC Hydro and endorsed "SAP as the default solution." This option was specifically rejected in the 2009-2010 RRA submitted to the Commission and the public some 3 months earlier for the Enterprise Financial Upgrade.<sup>6</sup>

These resolutions or strategy documents were not shared with the BCUC in the 2009 RRA or at any time thereafter that I can find.

It was mentioned in passing in response to a question during the 2012-13 RRA, after the completion of the Enterprise Financials Program: "The Executive Summary of the BC Hydro IT&T Five Year Plan - Year Two (Appendix R) lists five strategic intents which guide BC Hydro in technology-related decisions. The direction to "simplify the application environment with SAP as the core" is listed as part of the overall direction to simplify, standardize and integrate the IT environment. The Executive Team endorsed this direction in May 2008."<sup>7</sup>

This decision and document as we shall see was intentionally concealed during the 2009/2010 RRA process and for years afterwards.

The document also suggests as P. 4 that an "incremental amount of spending of \$32-38 million" may be required to implement these changes to the plan in addition to the \$45 million in the IT Capital Plan.<sup>8</sup>

3) The May 2008 resolutions passed by the Executive Team of BC Hydro established two governance/oversight groups for IT&T strategy at BC Hydro. The Executive Oversight group comprised of four Senior Vice Presidents: Chris O'Riley, Gary Rodford, Bev van Ruyven and Ray Stewart; the CFO (Charles Reid) and the CIO (Don Stuckert). The IT&T Leadership group was chaired by the Chief Information Officer and involved 12 individuals from the business groups.<sup>9</sup>

In short, the May 2008 decisions to establish SAP as the "default solution" and to proceed with a new IT&T strategy in the midst of the 2009 RRA was understood and endorsed by Senior Management and the Board and on an ongoing basis involved a broad cross-section of senior management.

4) On **October 15 2008**, BC Hydro officials appeared before the BCUC at hearings on the 2009/2010 RRA. Hydro officials were asked specifically about Information Technology and Telecommunications capital projects. BC Hydro repeatedly misled the BCUC as to their plans, strategies and spending with respect to the adoption of SAP.<sup>10</sup>

In a June 12, 2015 letter to me, BC Hydro Executive Vice President Greg Reimer states referring to the first SAP Project, the Enterprise Financial Systems Project that "two key factors resulted in BC Hydro re-defining the financial systems project to implement SAP financials instead. First, BC Hydro decided to adopt SAP – a single platform for backend systems – for the entire company."<sup>11</sup>

As can be clearly seen from the written evidence, this decision was taken, with massive financial implications, in **May 2008**. On Page 4 of the May 2008 document, approved by management and the board, it is acknowledged that for Enterprise Financial Systems alone, an additional \$32-38 million may be required above the budgeted amount.

In response to numerous specific questions in **October 2008**, senior BC Hydro executive failed to mention the decision to adopt SAP as a “default solution.” **This decision had been made, the money was starting to flow and BC Hydro did not tell the truth about it.** <sup>12</sup>

5) At the **October 15, 2008** meeting, BC Hydro officials were asked specific questions about the \$7 million dollar proposal to upgrade the PeopleSoft Financial systems described in Appendix J of the RRA. BC Hydro had already abandoned this approach for the dramatically more expensive SAP system. Yet, in its evidence, BC Hydro officials said the following:

“We are in fact, looking at PeopleSoft as one of the solutions, but we are also looking at other options, just in case we want to find a better solution.” <sup>13</sup>

The Commission then asked BC Hydro about the possibility that meeting new International Financial Reporting Standards would increase the costs of the capital budget. BC Hydro responded in its evidence:

“The capital forecast that was done in the initial budget was fairly pessimistic, in current terms of capability and what changes had to be made to the software. So within the scope of financial constraints.... The project is probably fine.” <sup>14</sup>

In fact, BC Hydro had already chosen a more expensive project – moving to SAP Financials. The only information the Commission had about this option came from BC Hydro in Appendix J, as part of the analysis as to why it was rejected. BC Hydro’s sworn evidence states that transitioning to an SAP platform would cost 5 times as much, not save operating money, cause delays and was “not appropriate for BC Hydro.” <sup>15</sup>

It is perhaps understandable given this analysis that BC Hydro would have a difficult time defending its May 2008 decision. But the evidence that gave simply covered it up and misled the Commission.

The consequences of this deception, a deception understood across BC Hydro’s management team, meant that the decision to proceed with SAP – a decision that is still being implemented at a cost in the hundreds of millions of dollars – was not reviewed, with severe consequences for BC Hydro ratepayers.

6) The planned IT Capital budget for BC Hydro was \$46.8 million in F2009 and \$40.5 million in Fiscal 2010 in RRA 2009/10. Submitted on March 3, 2010, the 2011 RRA states the IT Capital Budget (actual) was \$61.9 million in F2009, a 32% more than budgeted and \$90.5 in 2010, 123% more than budgeted. <sup>16</sup>

In testimony before the Commission in October 2008, under direct examination, BC Hydro did not acknowledge any change to its planned budget at that point halfway through the fiscal year. In those fiscal years along, this represented misleading the BCUC about \$65 million in additional spending.

7) BC Hydro in its testimony before the BCUC on October 15<sup>th</sup>, 2008 was specifically asked about the IT Strategy document submitted to the Board May 2008 (2009-2010 RRA Oral Hearings Volume 9 Page 1508) which outlined their Information technology strategic direction. When asked whether this document could be filed with the BCUC, BC Hydro said that the corporation could and would do this. <sup>17</sup>

This formal commitment became Undertaking 62 in the BCUC rate hearing. <sup>18</sup>

Instead of providing the May 2008 document which stated plainly that BC Hydro had adopted SAP as a default solution and a plan to increase IT spending, BC Hydro provided another document, dated October 31 2007 which covered the basic principles of the IT Strategy, but made no reference to SAP or the dramatic increase in the IT Capital Budget. <sup>19</sup> The May 2008 IT Strategy document approved by the BC Hydro Executive was never provided to the BCUC.

**BC Hydro deliberately misled the BC Utilities and the public as a result. There can be no doubt about this. They had been specifically asked for a document which had been approved by Senior Management and the Board and they not only failed to provide it, but misled the Commission with another document that suggested a completely different course. The intent here could only have been to deceive.**

Of course, it is for the Corporation to explain its motives here, but there can be little doubt, the result and intent was to avoid BCUC scrutiny for the decision to shift to SAP and the massive spend that would result.

8) The Expenditure Authorization Request (EAR) for the "Implementation of SAP Financials -Blueprint Phase" <sup>20</sup> signed off in August 2008, two months before the F2009-F2010 Oral Hearings. In short, they were spending money a dramatically more expensive and entirely different approach while telling the BCUC that it had not changed.

At the bottom of the third page of the document it states that it is estimated that the project will cost approximately \$30M. Yet, in oral testimony, BC Hydro deliberately misled the BCUC about the cost and budgets of this project months later.

"Under Hydro's IT strategy, approved by Hydro's Audit and Risk Management Committee earlier this year, the SAP systems were identified as a default solution."

"The document describes the overall BC Hydro Financial System Replacement Project, defining its scope, objectives and approach. It is anticipated that the Financial Systems

Replacement Project will result in the replacement of PeopleSoft Financials system with SAP Financials." <sup>21</sup>

This is a rejection of the plan presented by BC Hydro for approval earlier in the year as part of the RRA. BC Hydro intentionally failed to up-date the BCUC.

**Again, this document proves that BC Hydro misled the BCUC in the 2009-2010 Revenue Requirements Hearing. Hydro was spending money on their new direction while continue to mislead the BCUC both in oral testimony and in writing that this had occurred.**

9) The second Expenditure Authorization Request (EAR) is for the "SAP Financials Licensing Phase 1A". The EAR is dated Sept 30, 2008 (a couple weeks before the F2009-F2010 Oral Hearings). The signatures are dated Dec. 2008 after the hearings.

"This document has been prepared to seek financial approval for the purchase of SAP software and associated maintenance at \$1.2 million as negotiated with SAP Canada Inc. This is expected to be the first in a series of purchases from SAP to secure sufficient licensing to support BC Hydro's SAP program. This is in alignment with the recently adopted IT&T strategy as approved by ARMC, to execute the SAP Program, it is evident that additional SAP licensing will be needed."

"As per BC Hydro's new IT&T strategy as endorsed in May 2008, SAP Software has been identified as the "default solution" to be used for ERP related IT implementations."

"The initial focus is Finance... Follow up projects may be initiated (sic) other functional areas such as Project Management, Human Resources, Work Management, Supply Chain as driven by Business needs."

"Funding Source" **"In particular, the existing budget for the PeopleSoft Upgrade will not be required since this is now being replaced by the SAP program as per the IT&T strategy."** <sup>22</sup>

**Again, this document proves that BC Hydro decided to massively change its IT&T plan in May, and simply misled the BCUC about it, contrary to the BCUC Act.**

10) A series of other documents produced subsequent to 2008 further reinforce in plain words BC Hydro's deception of the Commission, a fact that was plainly understood at the senior ranks of the Crown Corporation. For example, the "SAP Enterprise Licensing Business Case Update" dated March 30, 2009 states:

"This document has been prepared to supplement and amend the original business case for SAP Licensing that was prepared in **September 2008**. At that time, BC Hydro purchased software valued at \$1 million from SAP and financial approval was granted via EAR #1122961. The initial purchase was executed as a down payment on overall licensing and was need to effectively "lock in" the pricing as had been negotiated earlier in **2008**." <sup>23</sup>

Further, the document demonstrates BC Hydro's commitment to the full SAP program as decided by the Board and Senior Management in May 2008.

Even more plainly, the Summary of Expenditures and Approvals for the Financial Systems Replacement Project dated August 18, 2010 states as do several other documents that the Start Date for the project was August 1, 2008, consistent with the EAR's above. (Appendix) In short, in its sworn evidence to the Commission, BC Hydro misled the public. <sup>24</sup>

11) Another document "SAP Enterprise Program Common Infrastructure" dated July 31, 2009 provide more context to BC Hydro's poorly designed and implemented Information Technology and Telecommunications Plan and the reasons why the Corporation chose to mislead the Commission about its decision in May 2008. <sup>25</sup>

According to the document, "in developing the IT&T strategy during 2008" BC Hydro considered two options – "taking the current ERP solution and integrating best components or a single ERP (SAP).

"The IT&T strategy therefore recommended deploying an SAP environment and to incrementally deploy it in the financial and operational business groups over a 3-5 year period. The Executive Team (ET) endorsed this direction in May 2008."

The decision made in 2008 to proceed with SAP across BC Hydro's business groups represent a massive capital cost commitment by BC Hydro. It was one project – something that has been reinforced repeatedly by BC Hydro's decision over the ensuing 7.5 years and counting. This decision – to proceed with SAP – was well over the \$50 million threshold. Had the BCUC seen the document and the decision, they would have reviewed not just in the context of an RRA hearing, but on stand-alone basis.

BC Hydro's intent was clear and the fact that the project has been mishandled, is not nearly finished and has cost ratepayers in the \$100s of million, does not change this. They knew this, when the BCUC asked that the May documents and decision be shared. And they broke their word and their undertaking as above. This is not simply withholding documents, this is intentionally misleading the public at huge cost, and reflects shoddy business practice, that continues to this day.

12) The F2011 Revenue Requirement Application lists the "SAP Financial Licenses" and states that the actuals were \$3.3M in F2009. The decision to buy licenses represented a massive spending commitment on SAP in 2009 and following years. It was based on decision approved by senior management and the Board in May 2008. <sup>26</sup>

Yet, BC Hydro failed to provide the May 2008 document or tell the truth about this change in direction in sworn evidence to the BCUC.

13) The F2011 RRA also lists spending of \$0.6M for the Enterprise Financial Upgrade project in F2009 and \$5M for the Enterprise Service Bus (ESB). If you read the F2011 RRA Appendix J summary for the ESB project, it states that the \$12M ESB project is required for the

Enterprise Financial Upgrade project. F2009 started in Apr 1, 2008 and ended on Mar 30 2009. No mention was made of using SAP for the Enterprise Financial Upgrade project, the SAP Financial Licenses, or the ESB project in the F2009/F2010 RRA or the October 2008 Oral Hearings, but yet BC Hydro managed to spend almost \$9M in F2009 on these projects that were not part of the approved F2009-F2010 RRA. <sup>27</sup>

14) The Enterprise Financial Project, the first component of SAP in the BC Hydro's IT&T Five Year plan, was broken into multiple projects to avoid the capital budget thresholds which would require BC Hydro to file a separate application with the BCUC in accordance with capital project filing guidelines. In the F2009-F2010 RRA the project was estimated at \$7.2M. <sup>28</sup> In the F2011 RRA the estimate was \$14.1M. <sup>29</sup> In the F2012-F2014 RRA the estimate had grown to \$16.3M. <sup>30</sup> In response to Information Request 2.139.2 to the F2012-F2014 RRA, BC Hydro stated that the capital costs related to the project were \$18.4M, that there were another \$9.2M of capital costs associated with the project. <sup>31</sup> As noted, this does not even include the \$12M for the ESB project mentioned previous that was also required for the Enterprise Financial Project. When adding all these associated costs up, the total project cost even exceeds the \$30M SAP option that was rejected in Appendix J of the 2009-2010 RRA.

15) The Plan Schedule Work project is a further example of BC Hydro breaking up a project in the SAP program to avoid having to file a separate application to the BCUC. In Appendix I of the F2012-F2014 RRA BC Hydro presents annual estimates for the project for F2011 to F2015 of over \$20M, but the final cost is still "TBD". <sup>32</sup> The initial business case signed in March 2011 estimates the cost between \$22M and \$40M. <sup>33</sup> The project summary on page 161 of Appendix J of the amended the F2012-F2014 RRA says an initial business case is expected in Q3 F2012 and the estimated cost is \$33.6M. <sup>34</sup>

In response to IR 1.277.2 when asked if BC Hydro will be submitting a separate application for the project to the BCUC since the estimate is greater than \$20M, the response simply states, "Yes". In response to IR 1.277.1 that asks for a business case to support the \$2.2M already incurred, BC Hydro says, "Please refer to the response to BCUC IR 1.277.2." <sup>35</sup>

However, no business case or EAR is ever provided to the BCUC as a separate application as promised for the PSW project. The PSW project is then broken into multiple "streams" each under \$20M to avoid any BCUC oversight.

16) The 8 projects listed at more than \$5 million in the 2009/2010 RRA were either discontinued or substantially changed. Seven other projects were added. **The BCUC was not informed of this change in plan even though it was occurring during the hearing period and BC Hydro officials testified under oath that the budget had not substantially changed.** <sup>36</sup>

17) In the 2011 RRA, BC Hydro presented an update to its Information Technology and Telecommunications Five-Year Plan. The transformation to SAP was a key element of that

plan. In the Spring Session of the BC Legislature, I asked a series of questions about this plan. Here is what we learned:

- BC Hydro is in Year 7 of the Plan and is not nearly finished implementation.
- BC Hydro has spent as of May, \$492 million on an unfinished plan budgeted at \$400 million
- BC Hydro's goal if the capital investment was made was a 30 per cent reduction in operating expenses. According to the Minister of Energy, operating expenses went up. The only target on page 8 of the plan that was not missed, was "Business Satisfaction." This was because the target in that case was "TBD".
- Only 3 of the 6 SAP platform functions had been completed, despite the decision made seven years earlier to move to SAP and the target to complete all phases by 2014. Seven years is a long time in information technology.<sup>37</sup>

BC Hydro claimed in its response initially in the budget debate that there was no 5 Year Plan and no target to reduce operating costs. Yet, both exists in time and space. In short, even the Minister has conceded, that significant Information Technology failures at BC Hydro. Mr. Stueckert the Chief Information Officer was dismissed in February 2015, a fact cited by the Minister as an example of BC Hydro taking action.

BC Hydro's pattern of inefficiency and overrun is not limited to SAP. In his letter to me of June 12, 2015 BC Hydro's current Vice President responsible detailed how the Customer Portal Project increased in cost from \$2 million to \$6.2 million to \$17.5 million.<sup>38</sup>

## **Conclusion**

BC Hydro's decision to move to an SAP based IT Architecture, a decision they deliberately and illegally hid from the BC Utilities Commission, has ultimately involved expenditures in the hundreds of millions of dollars. The SAP direction was undertaken contrary to the recommendations of BC Hydro staff as reflected in 2009 RRA. BC Hydro staff predicted that it would be a mistake and it was.

This was not a decision taken by one employee or Vice President or Chief Information Officer. The decision to embark on the most expensive possible option was taken by senior management and board members.

The consequences of this failure are being felt to this day in an Information Technology Plan that at massive cost, has not achieved its goals and is not finished. BC Hydro customers were misled and are forced to pay for it through higher BC Hydro rates.

BC Hydro broke the law with an understanding that they were doing so. But that is not the worst of it. The worst of it is that if they had followed the law and revealed their actions, they would be forced to meet a higher standard, to defend a dubious decision before it became a major mistake. The government and BC Hydro need to be held to account for this.

Over the past few years, the government has systematically undermined the BCUC by exempting key decision regarding BC Hydro from review. If anything, the conduct here is worse. Major decisions were exempted from BCUC review through an intentional cover up of BC Hydro senior management decisions.

I am asking the BCUC to review the attached documents, many of which are in the public domain, some of which are not, and investigate BC Hydro's conduct and actions. A higher standard is needed. And if future review hearings are to have meaning, then BC Hydro's misconduct - misconduct that is effecting all ratepayers today - must be held to account.

If you have any questions, please do not hesitate to contact me at my Vancouver-Kingsway Constituency Office at 604-660-0314.

Sincerely,

A handwritten signature in black ink, appearing to read 'Adrian Dix', with a stylized flourish extending to the right.

Adrian Dix

MLA, Vancouver-Kingsway

NDP Official Opposition Critic for ICBC and BC Hydro

## References and Footnotes

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- <sup>1</sup> Appendix N - BC Hydro IT&T Five Year Plan – Year 2 dated November 18, 2009 - Fiscal 2011 Revenue Requirement Application.
- <sup>2</sup> BC Utilities Commission Act, Section 106
- <sup>3</sup> Appendix I + J - Fiscal 2009/2010 Revenue Requirement Application – BC Hydro Exhibit B-1 (available on the BCUC website)
- <sup>4</sup> Appendix J- Fiscal 2011 Revenue Requirement Application – BC Hydro Exhibit B-1
- <sup>5</sup> IT&T Update on Strategy Development – May 22, 2008 Audit and Risk Management Committee Meeting of the Board
- <sup>6</sup> Official Report, Debates of the Legislative Assembly, April 21<sup>st</sup>, 2015, p. 7441-42.
- <sup>7</sup> IT&T Update on Strategy Development – May 22, 2008 Audit and Risk Management Committee Meeting of the Board, P. 6
- <sup>8</sup> IT&T Update on Strategy Development – May 22, 2008 Audit and Risk Management Committee Meeting of the Board, P. 4
- <sup>9</sup> IT&T Update on Strategy Development – May 22, 2008 Audit and Risk Management Committee Meeting of the Board, P. 5
- <sup>10</sup> BC Hydro Revenue Requirement F2009, F2010 –Transcript Volume 9 – Oral Hearing – October 15, 2008. (available on the BCUC website)
- <sup>11</sup> Letter from Greg Reimer, Executive Vice President, BC Hydro to Adrian Dix MLA, p. 2.
- <sup>12</sup> BC Hydro Revenue Requirement F2009, F2010 –Transcript Volume 9 – Oral Hearing – October 15, 2008. Pp. 1508, 1509, 1537, 1548, 1549, 1550.
- <sup>13</sup> BC Hydro Revenue Requirement F2009, F2010 –Transcript Volume 9 – Oral Hearing – October 15, 2008, p. 1549
- <sup>14</sup> BC Hydro Revenue Requirement F2009, F2010 –Transcript Volume 9 – Oral Hearing – October 15, 2008. P. 1550.
- <sup>15</sup> Appendix J- Fiscal 2011 Revenue Requirement Application – BC Hydro Exhibit B-1
- <sup>16</sup> Page 10-Appendix I-Fiscal 2009/2010 Revenue Requirement Application – BC Hydro Exhibit B-1  
Fiscal 2011 Revenue Requirement Application – BC Hydro Exhibit B-1  
Appendix I - F2009 – F2011 Capital Expenditures, Information Technology & Telecom – Fiscal 2011 Revenue Requirement Application – BC Hydro Exhibit B-1, p. 13.
- <sup>17</sup> BC Hydro Revenue Requirement F2009, F2010 –Transcript Volume 9 – Oral Hearing – October 15, 2008, p. 1509.

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- <sup>18</sup> BC Hydro F09/F10 Revenue Requirements Application - BC HYDRO UNDERTAKING No. 62 – BC Hydro Exhibit B -78
- <sup>19</sup> Page 1509 line 19 - BC Hydro Revenue Requirement F2009, F2010 –Transcript Volume 9 – Oral Hearing – October 15, 2008.
- <sup>20</sup> BC Hydro, Expenditure Authorization Request, Implementation of SAP Financials – Blueprint Phase, July 28, 2008.
- <sup>21</sup> BC Hydro, Expenditure Authorization Request, Implementation of SAP Financials – Blueprint Phase, July 28, 2008
- <sup>22</sup> BC Hydro, Expenditure Authorization Request, SAP Financials Licensing Phase 1, September 30, 2008, p. 5.
- <sup>23</sup> BC Hydro, SAP Enterprise Licensing Business Case Update, March 30, 2009, p. 1.
- <sup>24</sup> BC Hydro, SAP Enterprise Licensing Business Case Update, March 30, 2009, p. 1.
- <sup>25</sup> BC Hydro, SAP Enterprise Program, Common Infrastructure, July 31, 2009
- <sup>26</sup> IT&T Update on Strategy Development – May 22, 2008 Audit and Risk Management Committee Meeting of the Board
- <sup>27</sup> Appendix J- Fiscal 2009 Appendix J- Fiscal 2011 Revenue Requirement Application – BC Hydro Exhibit B-1
- <sup>28</sup> Appendix J Revenue Requirement Application 2009 – BC Hydro Exhibit B-1
- <sup>29</sup> Appendix J- Fiscal 2011 Revenue Requirement Application – BC Hydro Exhibit B-1
- <sup>30</sup> Appendix I of amended 2012-2014 RRA dated Nov 2011
- <sup>31</sup> BCUC BC Hydro response to Information Request 2.139.2, RRA 2012-14 (TAB 15)
- <sup>32</sup> Appendix I of amended 2012-2014 RRA dated Nov 2011. PSW Project Summary from Appendix J of amended 2012-2014 RRA dated Nov 2011
- <sup>33</sup> “Plan Schedule Work – Preliminary Business Case – BC Hydro – 04/03/2011.
- <sup>34</sup> BC Hydro PSW Project Summary from Appendix J of amended 2012-2014 RRA November 2011
- <sup>35</sup> BC Hydro response (RRA 2012-14) to IR 1.277.1 and 1.277.2
- <sup>36</sup> Appendix J- Fiscal 2009/2010 Revenue Requirement Application, pp. 82-93
- <sup>37</sup> Debates of the BC Legislature, Spring Session, 2015, pp. 7418-20, 7739-40, 7740-1, 8102-03, 8231-2, 8250.
- <sup>38</sup> Letter from Greg Reimer, Executive Vice President, BC Hydro to Adrian Dix MLA, p. 2.

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### TAB 2

BC Utilities Commission Act, Section 106

### TAB 3

Appendix I + J - Fiscal 2009/2010 Revenue Requirement Application – BC Hydro Exhibit B-1 (available on the BCUC website)

### TAB 4

Appendix J- Fiscal 2011 Revenue Requirement Application – BC Hydro Exhibit B-1

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BC Hydro Revenue Requirement F2009, F2010 –Transcript Volume 9 – Oral Hearing – October 15, 2008 (available on the BCUC website)

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Letter from Greg Reimer, Executive Vice President, BC Hydro to Adrian Dix MLA

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1. Appendix I – Amended RRA 2012-2014 – Nov 2011
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4. BC Hydro Response (RRA 2012-2014) to IR 1.277.1 + 1.277.2

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Expenditure Authorization Request, SAP Financials Licensing Phase 1, September 30, 2008, p. 5

### TAB 12

BC Hydro, SAP Enterprise Licensing Business Case Update, March 30, 2009, p. 1

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BC Hydro, Summary of Expenditures and Approvals, August 18, 2010

### TAB 14

BC Hydro, SAP Enterprise Program, Common Infrastructure, July 31, 2009

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BCUC BC Hydro response to Information Request 2.139.2, RRA 2012-14

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Debates of the BC Legislature, Spring Session, 2015, pp. 7418-20, 7739-40, 7740-1, 8102-03, 8231-2, 8250

**Tab 1**

- 1. Appendix N - BC Hydro IT&T Five Year Plan – Year 2 dated November 18, 2009 - Fiscal 2011 Revenue Requirement Application**
- 2. Appendix R – BC Hydro IT&T Five Year Plan – Year 2 dated September 30, 2011 - Fiscal 2012 to 2014 Revenue Requirements Application**

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**F2011 Revenue Requirement Application**

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**Appendix**

**N**

**Information Technology and  
Telecommunication Five-Year Plan**

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FOR GENERATIONS

BC Hydro Information Technology &  
Telecommunications  
Five Year Plan - Year 2

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November 18, 2009

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### Executive Summary

BC Hydro is in the second year of a five year Information Technology and Telecommunications (IT&T) plan that is intended to help enable BC Hydro achieve its overall mandate to generate, purchase, distribute and sell power and meet the need in B.C. in a cost effective and reliable manner. The specific focus is on the “Short Term Priorities” for Climate Change and Environmental Impact, Energy Conservation and Efficiency, Reliability, Energy Security, Safety, Customer Satisfaction, Financial Targets and People.

The IT&T plan is based upon the principle of “One Hydro” and a few important strategic intents:

- **Enable the Business:** Enable the business and align technology investments with most important, enterprise-wide priorities to increase efficiency and productivity, improve decision making, and improve service
- **Simplify Work Processes for more Tool Time:** implement key integrated technologies to help automate/eliminate administrative burden and increase the ability for people to spend “time on tools”
- **Simplify, Standardize and Integrate the IT environment:**
  - Simplify the application environment with SAP as the core
  - Simplify, standardize, modernize and virtualize the technology foundation
- **Highly sourced:** Leverage a highly sourced environment to deliver high quality service at a low cost point
- **Information as a Service:** create a foundation of data that can be delivered efficiently and accurately

At the core of the plan is business transformation, building improved processes and related systems, on a solid technology foundation.

The business transformation work includes the following:

- ERP - Finance and HR
- Asset Management
- Work and Resource Management
- Program & Project Management
- SMI and Smart Grid

The supporting technology foundation is built by a core set of new/enhanced technologies including:

- Collaboration
- ESB
- Disaster Recovery
- Server Virtualization
- Telecom upgrades
- Security modernization

These technologies enable the “One Hydro” process model to:

- Simplify the work and business process environment and increase productivity

- Create the infrastructure foundation that increases collaboration and standardizes the environment
- Make processes more intuitive and increases personnel productivity
- Create personalized channels for customers to interact and engage with BC Hydro
- Provide information to key decision makers to help make the right decisions about the right work at the right time

Having established a solid foundation, BC Hydro will have the confidence to evolve and absorb new technologies to meet the changing business environments such as distributed generation and smart grid. IT&T will deliver these key technology advancements through deployment of a few key principles:

- Business planning drives business process design which drives IT&T
- End-to-end process design for simplification and consistency of business processes
- Improved worker safety through the integration of safety into all business processes and systems and to support work / life balance
- 80/20 rule for design and build and design for “tool time” at the front line worker level
- Utilize existing investments, where possible, in IT&T assets

These key principles are delivered through a strategy of incremental building blocks. These building blocks are based on value to business, minimized risk and ensuring the projects are doable within the businesses. Also, as we build out incrementally, we are increasing our knowledge and skills to ensure future work and implementations are performed optimally and with minimal risk.

Year 1 of the IT&T plan achieved many successes while at the same time aligning to the new financial realities including:

- reducing cost of base operations by \$9.3m
- launching delivery of SAP for Finance incorporating IFRS requirements
- launching new procure to pay processes and system
- initiating enterprise wide document management
- initiating Program and Project Management system implementation
- beginning early stages of implementation for key productivity technologies (e.g.. Instant messaging)
- significant improvements in IT&T delivery

Additionally, we established an IT&T governance structure that was invaluable in setting the foundation for not only clear direction on the projects and operations but also to focus the organization on the change management and do-ability of the work at hand. The governance group is comprised of senior business leaders who have direction oversight of the business operations and can interpret the need for technology enablement into their business and the overall BC Hydro perspective.

While Year 1 was a good beginning, the next four years present many challenges as IT&T expects to deliver the important technology improvements through capital investment while at the same time continuing to lower OMA, improving IT&T service delivery through continuous improvement and evolving with the increasing demands placed on technology.

Moving forward, it continues to be critical for BC Hydro and IT&T to continuously align with the changing BC and BC Hydro environment, actively managing the capacity in which the business can implement new technologies, address organization change management and remain focused on the top priorities. We will continue to address key technology foundational and business transformational work.

Introduction

In F'11 BC Hydro will be in the second year of a five year information technology and telecommunications plan. The Executive Team has defined the goals and objectives for IT through its business plans and service plans. The IT&T plan is will enable the business units' operational plans, putting in place an appropriate IT foundation while at the same time transforming IT to become simpler, more integrated, modernized and lower cost. This will mean short-term investments to lower the Total Cost of Ownership (TCO), changing business process, standardizing technologies, and putting in place strict controls and governance to optimize asset utilization and eliminate one-off, throw away investment.

IT&T has designed a 5-year journey to achieve the outcomes of our plan. Year 1 saw many challenges and accomplishments with some important updates, yet our fundamental strategic intents and goals remain unchanged:

Strategic Intent	FO9	Goals	Business Value			
			Lower Cost	Efficiency	Better Decision Making	Improved Service
Enable the business and align technology investments with most important, enterprise-wide priorities	Localized BU investments with limited enterprise-wide transparency	Enterprise-wide investment decision making focused on top BC Hydro priorities	✓	✓	✓	✓
Simplify work processes and provide more tool time	Processes designed for specific and local use with limited capability beyond specific function	Efficient processes that remove barriers and focus on automation of transactional work, Apply to the whole organization	✓	✓	✓	✓
Simplify the application environment with SAP as the core	600+ applications and 200+ databases including four large ERP systems	Simplified integrated applications with SAP as the core <ul style="list-style-type: none"> <li>• &lt;300 applications.</li> <li>• &lt;50 databases</li> <li>• SAP as ERP</li> </ul>	✓	✓	✓	✓
Simplify, standardize, modernize and virtualize the technology foundation	Highly complex environment with device proliferation and under-utilization of assets <ul style="list-style-type: none"> <li>• 5000 desktops</li> <li>• 3000 laptops</li> <li>• &gt;80 desktop images</li> <li>• 700+ servers</li> <li>• 75+ TB storage</li> </ul>	Virtualized and controlled environment for lower cost and improved responsiveness	✓	✓	✓	✓
Leverage a highly sourced environment to deliver high quality service at a low cost point	Single primary provider of IT Services with limited integration into OCIO	Integrated end-to-end services with key IT Service Providers	✓			✓
Information as a Service	Disparate information not fully meeting the needs of the business	Clear information architecture and "single source of truth" with high quality			✓	✓

The first year of the plan made significant gains in meeting the BC Hydro's business objectives. Principles and priorities were established. Major headway was made into designing and building process redesign and technology foundations.

BC Hydro established and is implementing the key principles that were developed last year. These include:

- Business planning drives business process design which drive IT&T
- End-to-end process design for simplification and consistency of business processes.
- 80/20 rule for design and build
- Design for “tool time” (e.g. increased productivity and automation of transactions)
- Single source of information and reporting
- Utilize existing investments, where possible, in IT&T assets
- Consistent and effective governance and operations

During Year 1, IT&T met the challenges of the economic environment by lowering OMA costs while at the same time launching and implementing several key efforts:

- IFRS based financial system launched
- Project Management automation launched
- Enterprise document management system started
- New procurement processes and systems launched
- Enterprise wide processes defined for the company
- Early stage implementation of key productivity technologies including video conferencing, office communicator (instant messaging, desktop sharing, etc.) and knowledge management
- Key technology foundation renewals began in infrastructure, security, disaster recovery and telecommunications
- Improvements to IT&T delivery were made in governance, business process delivery, technology architecture delivery, project management delivery and operations

The corporate wide investment in IT&T was consolidated and prioritized. The operational expenditures account for \$69 million while the capital planned expenditure is \$90 million. A number of financial improvements were made and resulted in reduced capital and operating costs of \$23million. Those reductions have been realized however our technology costs continue to grow due to growth in the organization. Subsequent plans are in place to further reduce IT&T costs.

Moving forward, it continues to be critical for BC Hydro and IT&T to continuously manage the delivery of the plan while keeping it aligned with the ever changing environment. The most significant risks to the plan and achieving the value are:

- Capacity - Ensuring the appropriate business and IT resources are available to make Projects successful. We are making significant IT investments with significant business change that requires a tremendous amount of effort from the business and IT.
- Organization Change Management - Continuing to focus on change management and optimizing the people resources to focus on key priorities is imperative. Doing this well will ensure that the organization is prepared for the changes it is making.
- Business Value Realization - Ensuring that appropriate processes are in place on every project to understand and work with the business to realize the business value.
- Ability to stay focused - addressing the complex environment that BC Hydro has built will take time and it is important for BC Hydro to stay the course and let the structural changes take effect.

These risks are being actively managed and require active ET sponsorship and engagement to fully deliver the plan.

## IT&T Strategic Intents and Governance

### Business Goals and IT&T

BC Hydro has clearly defined its goals and objectives within its Service Plan and the company is going through a transformation of its business while we deliver on our key business objectives for reliability, safety, efficiency and simplicity, integrity and fiscal responsibility. The role of IT&T is the development of solutions is to support and enable those goals and objectives to be met. We have established important strategic intents and the associated 5-year stretch targets for IT&T in order to help BC Hydro achieve its overall goals and objectives.

#### BC Hydro Goals/Short-Term Priorities

- Climate change and environmental impact - to have no net incremental environmental impact by 2024 when compared with 2004.
- Energy conservation and efficiency - Develop and foster an energy conservation and efficiency culture in B.C. that leads to customers choosing to make a dramatic and permanent reduction in the use of electricity.
- Reliability (CUSTOMER) - Provide best-in-class reliability by customer segment.
- Energy Security (SUPPLY) - meet all domestic energy needs.
- Safety - provide the safest work environment compared with the best performers in any industry, where not one of our employees will experience a serious work-related injury.
- Customer Satisfaction - lead by offering extraordinary value and service.
- Financial Targets - Maintain low costs for electricity customers in B.C. over the long-term, while consistently delivering 100 per cent of forecast net income.
- People - To be a top employer for generations.

#### IT&T Strategic Intents

- Enable the Business: Enable the business and align technology investments with most important, enterprise-wide priorities to increase efficiency and productivity, improve decision making, and improve service.
- Simplify Work Processes for more Tool Time: Implement key integrated technologies to help automate/eliminate administrative burden and increase the ability for people to spend "time on tools".
- Simplify, Standardize and Integrate the IT environment
  - o Simplify the application environment with SAP as the core
  - o Simplify, standardize, modernize and virtualize the technology foundation
- Highly sourced: Leverage a highly sourced environment to deliver high quality service at a low cost point
- Information as a Service: create a foundation of data that can be delivered efficiently and accurately

IT&T Goals	IT&T 5-Year Targets
Enterprise-wide investment decision making focused on top BC Hydro priorities	Single, enterprise-wide investment plan and governance group
Efficient processes that remove barriers and focus on automation of transactional work	80% reduction of transaction process labour hours
Simplified integrated applications with SAP as the core	<300 applications <50 databases
Business satisfaction	SAP as ERP TBD %
Virtualized and controlled environment for lower cost and improved responsiveness	75% virtualization of storage and servers 1 PC per office worker <10 PC images
Integrated end-to-end services with 3-4 key IT Service Providers	>85% of external spend on strategic suppliers
Clear information architecture and "single source of truth" with high quality	Information architecture established and meta data model deployed
Lower cost of IT	30% reduction of IT&T OMA as a % of BC Hydro OMA
Predictable IT project delivery	90% on-time, on-budget, on-scope of top priority projects

These Strategic Intents, Goals and Targets are aspirational and represent a transformation of IT&T within BC Hydro. It is expected the journey towards achieving these aspirations will be a challenging one.

In order to get there, the BC Hydro business process and operations plans drive the solutions and priorities for IT&T. Each of the cross functional process are designed to deliver the business goals and

objectives of climate change & environmental impact, energy conservation & efficiency, reliability, energy security, safety, customer satisfaction, financial targets and people:

Our IT&T future state incorporates the goals and objectives previously stated. Below is a diagram reflecting the overall solution.



Along with ensuring the business goals are being met, IT&T is continuously reviewing industry trends and incorporating them into our plans with many of the current industry trends already included into our plans.

<i>Key Trend</i>	<i>Brief Description</i>	<i>Case Examples</i>
Move towards integrated, enterprise class solutions	Deploy integrated ERP-like systems to better integrate the utility, gain the value of single-source-of-the-truth and the associated IT cost reductions	Hydro One, PG&E, TXU, CenterPoint, Puget Sound Energy, Southern Cal Edison, Allegheny Power, Florida Power and Light, ERCOT, Energy Australia, EDF
Virtualization	Virtualize all mature elements of the environment and begin to “pilot” a privatized cloud environment to gain better leverage from asset investment plus significantly improved serves	Southern Cal Edison, PG&E
Smart Grid	Investigate and deploy a Smart Grid strategy and associated Smart Grid technologies	Alliander, City of Amsterdam, Bord Gais, Snam Rete Gas, FSK, ComEd, ERDF, Jemena, SP Ausnet, Xcell Energy, SCE, PG&E, Northeast Utility/CL&P, PPL Corp, Singapore

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		Energy?, Powercor-Citipower
Mobility	Leverage current mobile environment and explore further approaches to get people into the field and enable them with technology	ComEd, Consumers Energy, EDF, FirstEnergy
Predictive Analytics	Create information architectures and associated automation and drive analytics that are insightful and allow personnel to proactively help customers	Entergy, PPL Corp, Key Span, Eskom, Edipower, United Utilities, RWE Innogy GmbH, Reliant
Simplification and Rationalization	Examine the overall technology environment (both operational technology and information technology) and develop a plan to reduce device proliferation, eliminate software, and eliminate databases.	Hydro One, AGL, Constellation, E.ON, Enbridge Gas
Collaboration	Put in place modern tools to enable collaboration across physical proximity and boundaries to gain leverage from a highly mobile and more virtual work force	United Utilities, Schlumberger, BP, Accenture

### *Governance*

IT and T uses several approaches to ensure good governance of IT across the organization.

**Business Alignment** - The governance group was established with senior managers from the key operating units (Field Operations, EARG and Customer Care) along with corporate groups (Safety, HR, Legal, Finance, corporate communications and strategy). This group focuses on ensuring BC Hydro achieves business value, simplification of processes, enables reliability and safety goals, and is doable with minimal risk to the organization. They set priorities and make decisions on key considerations and to date has been very successful.

**Project Success** - The engagement of key people throughout the organization to work on key projects has increased the project success levels. These people have been assigned full time to the projects which has allowed not only the expertise needed to be applied but to be focused on the job at hand.

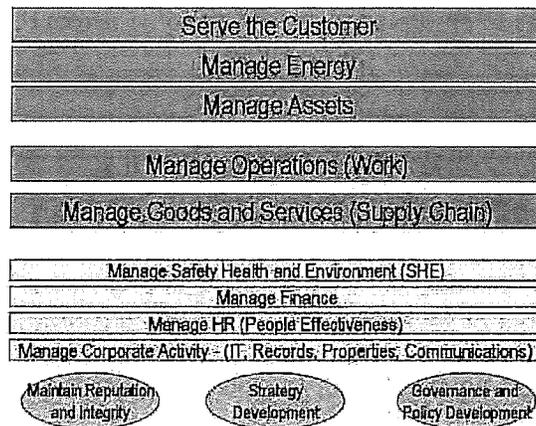
**Compliance with Standards** - we are moving from an environment of fragmented, proliferation of technology to one that is more controlled with compliance to standards enforced. In the future years, we will be creating a set of processes working with our strategic partners to better gain compliance to these standards and increase control of the IT environment.

**Business Process Enablement - One Hydro View**

IT&T should enable the business to achieve its goals and strategies. Specifically, how IT&T is managed, how projects are delivered and how day to day operations support the business is critical to the success of meeting these objectives. The directions are very much focussed around “One Hydro”. This requires a convergence of business process and technology solutions to be more aligned with the single enterprise view. What “One Hydro” represents to the business process and technology investment is that we look at cross functional processes that drive solution designs into the business groups and develop technology solutions to address enterprise needs first and foremost. IT&T has put in place a framework of processes (see diagram) to help:

- Integrate processes and technologies to foster a “One Hydro” approach and the associated benefits of increased productivity, efficiency and an end-to-end customer based view
- Maximize technology return on investment through a more simplified technology environment, fewer, yet more strategic, technologies, and greater utilization of the technologies
- Focus and prioritize investments in the most critical business process areas that will help BC Hydro achieve its strategic objectives
- Create a single source of truth for information, captured once and delivered to all levels of the organization as they need.
- Simplification of management and operational reporting and provide the confidence of accuracy and timeliness.

**BC Hydro Process Model**



Taking this approach required significant changes to the way IT&T operated in the past. Specifically, it will enable BC Hydro to have at least 50% of the investment to go towards “transform” vs. the <30% in prior years investments. To fulfill the strategy to support the business, there are three key principles that have been implemented:

1. The business plans drive the integrated processes and priorities.

2. The business process architecture defines business operational processes to run the business. The processes address the enterprise (common processes) business as well as the business groups.
3. The technology architecture enables the business processes to meet the business objectives and includes the applications, information/databases, infrastructure, and telecommunications solutions required to deliver the business processes.

The subsequent sections of this report described the process and systems solutions under these scenarios.

### Manage Customer Processes & Systems

BC Hydro is “transforming the customer relationship”. These changes range from the strong leadership we have taken in conservation to understanding the operational changes that will come from the implementation of smart meters and intelligent devices. As well, new and more complex rate structures are being applied for and implemented. These changes will drive changes to our processes, systems, data bases and communications (internally and externally).

How we look at each customer will become much more personalized and the information we provide them will be based upon a human centered design. Who, what they need, and where people are in the province, will define the way in which we service our customers. Having tools to analyze and deliver these services will be much more specific and intuitive for our customers.

New processes are being developed to address these changes to the business. Existing processes are being simplified where possible and new processes are being designed to address emerging customer requirements. Key process changes include:

- Customer information access processes
- Customer data analysis processes
- Customer work management processes related to billing, service and repair
- Processes to handle the volume and complexity of data streams coming in from the smart devices

#### *Technology Direction*

The technology platforms to enable the business will require changes as well. The core system we implemented 4 years ago, the SAP Customer Information System (CIS) will be foundational to build upon and key new technology based capabilities that create more personalized service, greater access to information via the web, as well as deliver insight to our employees will be deployed including.

- Customer Insight: Implementation of additional capabilities through the use of Customer Relationship Management (CRM). This software allows for better analysis and process improvement in support of the customer service group. In addition to this type of technology, information will become more important and technology platforms will be re-designed to better access data and information
- Self Service: Self service will become a much more prevalent technology to support both the service and conservation processes. To be more responsive and to control costs related to service,

this technology is required. Key self service capabilities include: bill pay, bill analysis, conservation programs and analysis, plus making self-service easy to use and personalized to that customer.

- Knowledge and teaching systems are being utilized to provide information to customers and employees. These systems include knowledge data bases and social networking capabilities available to both customers and employees.
- Intelligent and virtual call centers to be able to respond to varying levels of volumes.
- Critical updates for rates and conservation services - Our technology will continue evolve to align with direction regarding new Rate structures as well as providing new or enhanced conservation services.

These business process and systems changes are underway now. Over the next three years, the solutions will be built out incrementally and as the business needs them.

### Manage Energy Processes & Systems

How BC Hydro generates power for the citizens of BC has changed significantly over the past few years and that change will accelerate in the future. The advent of green power generation, independent power producers (IPP's), increased technology in generation and distributed generation will demand much more from the experts at BC Hydro responsible for energy planning and delivery. BC Hydro has established a "conserve", "build" and "buy" strategy for power generation. The conserve component has been discussed in the previous section under customer. The build and buy strategy is being addressed in this section.

**Long term Planning - 5 to 20 years:** The processes and operations related to supporting load forecasting and long term planning has traditionally been laborious and difficult to perform. As well, each time the plan is produced, much of it is built from scratch. A redesign project has recently defined simplified processes and is currently defining technology solutions to support those processes.

**Medium range planning - 2- 5 years:** Similar to Long-Term Planning, this area is manually intensive and often "lost" when the hand-off occurs between long-term and operational planning. This area will be addressed with improved automation and integration of data into the processes being defined.

**Operational planning - Next day to 2 years:** These processes rely upon analyzing large amounts of data, interpreting the information and developing operational plans for the generation facilities and stakeholders (such as BCTC). Incrementally improving the current systems and solutions is what is being contemplated and no significant process or systems changes are anticipated.

**Management processes needed for IPP's:** As the IPP business activity grows, as it is currently doing, electronic document management processes and systems are required. Later, in the technology foundation section, these solutions are being described. A plan is going to be developed in F11 to determine how to leverage these solutions to provide a structured and cost effective solution for IPP management.

#### *Technology Direction*

It is recognized that BC Hydro is a leader in energy planning through the capabilities of the individuals and the analytical tools used. The direction for these areas is not to totally re-design how we perform this business but rather to provide better foundational systems and more systematic processes to

reduce time and costs to produce the information as well as to better integrate the information across planning horizons and report against the plan.

The technology platforms needed to support the “Manage Energy Processes & Systems” require key foundational systems to be utilized and integration of data so the processes can be more efficient and require less re-work. Specifically, over the next four years the focus for IT in this area is:

**Distribution Management System (DMS)** - The DMS is a software solution that manages the data related to power flow and outages. It works by receiving data from intelligent devices out on the power network. It is an advanced system that will increase in functionality as we build out our network and add more analytical capabilities.

**Demand Forecasting** - One area that is manually intensive is in Demand Forecasting. In order to make this a more efficient process, new tools leveraging the information in other systems will be deployed to help automate this process and increase the accuracy of forecasts from a “statistical” point-of-view.

**Structured data, improved analysis tools and the integration of new information/energy models** - Review the processes and access of information in order to refine the data architecture, so that data is more structured, easier to access, and more relevant for the Energy Management processes across the planning horizons. Additionally, this process requires advanced analytic tools to maintain pace with modern technologies, especially as BC Hydro attempts to maintain its leadership position. This will enable BC Hydro to continue meeting the needs of its Customers, efficiently use the critical personnel in this area, and eliminate non-value added re-work.

### Manage Assets Processes & Systems

BC Hydro has a business strategy to improve its assets over time through an aggressive capital plan to improve generation facilities and improve the aging distribution and transmission assets. While BC Hydro does not currently have an overall management process to oversee the assets of the corporation, it does have targeted management processes in the three areas of generation, transmission and distribution.

**Generation Assets:** Assets for generation are created during the initial capital projects. The component/ subcomponent structure is established during the project and is updated into the asset system. The current capital project underway will be updating the financial asset management system being implemented. There is currently no plan to integrate this asset registry with transmission or distribution asset registries.

There is however a requirement to improve the process and systems supporting the maintenance functions once the asset has been commissioned. As we implement solutions for finance, projects and work management, we will incrementally build out a new asset system.

**Transmission Assets:** Transmission assets are planned and managed through a contract with BCTC but the design, build and operations are delivered through BC Hydro. At this time, there is no plan to improve Asset Management in this area except through better information flow to BCTC.

**Distribution Assets:** This business process area along with the technology solutions will see the most change in the coming years. Given the large scale replacement of many aging distribution assets along with a large maintenance program to ensure these assets to meet the demands and forecasts of the business, asset management is becoming an even more critical process. It is expected the redesigned processes will take advantage of modern practices and technologies to:

- Simplify the current business,
- Leverage compatible units and integrate across all major processes (procurement, work management, etc.)
- Fact based asset management with formalized asset registry
- Increase integration of the asset registry to help optimize and automate other processes (e.g. as built, financial, etc.) including into GIS

One area of change will include the type of assets, as we are implementing a number telecommunications and intelligent devices across the distribution network and these assets information will also have to be maintained. There likely will be some policy changes related to these assets as their effective life may be considerably shorter and be expensed.

**Corporate Assets:** All other assets of the corporation (IT&T equipment being the most significant) will be incorporated into the asset registry along the implementation of other assets.

### *Technology Direction*

While we are undertaking a small strategy project to investigate overseeing assets from a corporate perspective, the directions and solutions currently being developed are to address the specific needs of each area. That said, the solutions are being designed with the enterprise in mind so that there will be the ability to manage the assets consistently and effectively.

The primary technology direction for this area is to create an integrated Asset Registry that can be integrated across processes and leverage the power of technology that:

- Provides consistent asset record across all of our systems. Currently, assets are handled differently in both the financial and asset management systems resulting in large amounts of manual reconciliation and manual interfaces.
- Deploys Asset Management Process that reviews and conducts analysis on asset classes based on safety, risk, and reliability of supply.
- Supports the analysis of assets using design information, safety records, maintenance records, and risk allowing analysis of information and make better decisions regarding which assets to maintain and where
- Provides automated, predictive analytics (leveraging information from the Smart Grid)
- Automates non-value added, administrative processes
- Improves accuracy of data

The technology required support this work will primarily be implemented in the operations (work management) business process redesign. The output from those processes will provide the information to maintain the asset registry. The technology will leverage BC Hydro's investment into ERP in order to provide the integration benefits we are looking for. This will require significant effort over a number of years to correctly implement the technology and equally important the data associated with Assets.

## **Manage Operations Processes & Systems**

BC Hydro has a large, complex work force operating the power infrastructure. The two most significant areas, accounting for 75% + of the staff and financials, are generation and field operations. Both of these areas work on capital projects, or day to day operations work including maintenance. These are two areas of need of improving and simplifying how work is done particularly since more work needs to be performed with the same or fewer staff.

With an aging work force, there is an additional need to automate processes and retain the knowledge of processes so that the work can be done safely and efficiently. In all cases, the process and systems solutions being designed to not only increase time on tools (e.g. productivity) but also remove any hazardous barriers causing fatigue, frustration or stress related to the tools they use.

Two focus areas are being redesigned and require technology to support them:

**Program and Project Management** - The generation group has taken the lead and is currently designing processes and systems that will simplify the deliver capital projects process thereby lowering the cost to deliver the projects, increasing safety with prevention built in, and increase predictability of the plan . The solutions will provide an extendable process design for EARG and other parts of the organization that are involved in capital projects, specifically, Field Operations, Properties and IT&T

**Planning, Work and Resource Management** - This will improve the efficiency of work management processes, particularly in the areas of work planning, scheduling, design, and fieldwork administration and improve integration into the Supply Chain. In addition, the safety will be built into the process and technology to increase the overall safety of workers within BC Hydro and for the public. Our existing work management processes are disparate and complex. The design group as an example must use 7 systems and several manual processes in order to initiate and plan a customer driven work order. Future work management must be much simpler and implemented consistently across the organization.

### *Technology Direction*

The core foundational systems are based on ERP for work and asset management, specialized software for resource scheduling along with project scheduling software from Primavera (Oracle). Interfaces and much of the financial processes are being developed through the financials process improvements currently planned to go live on April 1<sup>st</sup> 2010. With these solutions, data will be stored once and used through business intelligence software or reports. These platforms will be extendable across the enterprise, integrated, and expected to help reduce the overall complexity of the technology currently in use for these processes. Some of the key attributes being deployed include:

- Enabling distinct Program and Project Management capabilities for small A(less than \$1million), Medium (\$1million to \$10million) and large (over \$10million) projects
- All work will be initiated, planned, scheduled, dispatched, and closed in a consistent way, regardless of the type of work. This will allow for increased administrative efficiency, and allow for an increase in field manager focus on safety and tool time.
- Safety will be integrated into all work, including the administrative and reporting aspects of the safety processes.

- We will move from a reactive work environment to a planned proactive work environment.
- We will capture all data at source, to create a single source of truth and eliminate the reconciliation burden.
- We will simplify our processes, and increase our ability to do trending analysis and reporting
- We will utilize telecom technologies to capture data at source, and provide a safer working environment.

### Manage People Processes & Systems

A large proportion of the BC Hydro workforce will be replaced in the next few years due to the high numbers of employees reaching retirement. In addition, BC Hydro is replacing large numbers of aging assets and increasing capacity at existing plants. This means that the recruitment of new workers is key to the success of BC Hydro, and workforce planning should become a common, consistent process within BC Hydro. The new processes will allow these workers to be integrated quickly into the workforce and become a productive team member as soon as possible and this will require new tools to increase the speed of recruitment, and to manage workforce planning effectively enterprise-wide.

Additionally, the payroll process and system is highly complex given BC Hydro's work rules and unionized environment. Given the system has not been upgraded recently, it is a high risk area requiring further investigation of options to reduce the overall risk.

Longer term, the HR processes of training, benefits administration, and employee qualifications and life-cycle administration will also need to be reviewed for potential process and system improvements.

#### *Technology Direction*

Moving "People Processes" onto the common enterprise-wide platform is of critical importance so that BC Hydro addresses the most important priorities for HR, including payroll and workforce planning. Moving "people" information into ERP will allow BC Hydro to take advantage of the integration that ERP provides, especially in the areas of work and resource management, ultimately allowing for electronic timesheets, and ensuring job safety by ensuring that assigned workers have the right qualifications and training.

### Manage Safety, Health and Environment Processes and Systems

BC Hydro's goal is to achieve and maintain excellence in safety, health and environmental performance across our operations through the elimination, mitigation and control of hazards that present a threat to people, property and the environment. Safety, Health and the Environment are part of all that we do at BC Hydro, and as such, we need to develop our business processes and systems enterprise-wide with that in mind. As an example, the work management process should ensure that work is being assigned to staff with appropriate training and qualifications, that work is organized so that no work is done until safety steps have been taken, and that safety is incorporated into the design of all the work we do. Environmental hazards need to be managed swiftly and accurately and the SHE team needs access to all of the information on how we handle Safety, Health and the Environment so they can complete their analysis and start the cycle of continuous improvement.

#### *Technology Direction*

The primary purpose of technology is to help SH&E and BC Hydro achieve its goals in two specific ways:

- Embedding appropriate SH&E process into technology - embedding prevention and important SH&E controls from the most relevant processes into the technology so that prevention will be woven into the fabric of BC Hydro and BC Hydro can achieve the long-term culture change it is expecting.
- Enterprise Reporting and Management System - the implementation of this system will help BC Hydro more efficiently and effectively conduct analysis and understand the drivers of SH&E issues, while at the same time providing the management reporting required. It is expected this will help BC Hydro improve its overall Safety culture, and actively move towards the prevention culture and overall 'no harm' outcomes that BC Hydro is expecting, while reducing the manual intensity of processes and administrative burden associated with them. The immediate priority for this system is the Greenhouse Gas Emissions Reporting as there are regulatory requirements for this information.

### Manage Goods & Services Processes and Systems

The Procure to Pay Plan is driving changes to enable BC Hydro to reduce its purchasing costs by using more efficient processes, and improved information in order to reduce buying costs over time. In the future, buyers will have access to better information and be better able to negotiate improved prices. Processes for making purchases within BC Hydro will be simpler and more consistent across the organization. The purchase and safe delivery of new equipment is a critical component to the Project Delivery Process. In the future, these purchases will be more integrated into the project delivery process and systems allowing project managers and buyers to have the information they need to make good decisions throughout the process.

In addition, work is underway to improve the processes within the Materials Management, where the rest of the supply chain process is led. The intent is to improve processes in order to simplify work for the field, improve logistics and reduce inventory. Longer term, the whole supply chain process will be reengineered to support the redesign of the work management processes, integrating all of these processes together for the greatest overall benefit.

#### *Technology Platform*

While much planning is still required, the intent is to leverage BC Hydro's investment in ERP to better optimize the "Manage Goods & Services Processes and Systems. The redesign of Work and Asset Management processes will better enable the planning for an optimized Materials Management environment and additional technologies beyond the 5-year plan to optimize warehouse management, transportation and logistics, etc.

### Manage Finance Processes and Systems

The Financials Plan requires that BC Hydro move towards the IFRS standards and to simplify processes in order to meet the operational needs of the business. Financial standards and accounting policies will be changed to reflect the IFRS requirements. Additionally, the financial processes will be simpler, more consistent across the business units, and more integrated with the operational systems. Costs will be clearer, and the use of one system will eliminate the need for "spreadsheet farms" that

reconcile data between multiple systems. The single source of truth data will rationalize where data is stored and how it is used.

BC Hydro embarked on a process redesign project in F10. The processes and systems are being revamped to reflect IFRS accounting practices, to simplify the accounting processes and to support multiple reporting requirements (i.e. IFRS and BCUC), and to remove unnecessary policy and processes; thus reducing the amount of reporting (much is currently ad hoc and not specific to accountabilities). In subsequent years, we will focus on the improvement of the budgeting and treasury processes and systems.

SAP is the core platform being implemented for Finance and is the beginning of a core IT environment simplification effort as well as the foundation for other areas to leverage the “out of the box” integration that SAP brings.

### Manage Corporate Processes and Systems

A more integrated and “One BC Hydro” approach is the vision for all of the corporate groups. The goal of all of these groups is to support the business strategies in an integrated way and enable the core parts of the business.

#### *Technology Direction*

In the future, systems will support a more integrated approach to work overall, including a simpler sign on process to allow users to access all of their applications with one sign on password. In addition, there will be a move towards the simplification of the multiple systems used by employees. A portal that allows users to have the ‘feel’ of one system, when they are actually using many, will make life simpler for users and again, move towards the “One Hydro” culture. The implementation of collaboration software allowing employees to communicate more effectively face to face without travel will also support that “One Hydro” goal. Another major change that is coming is the implementation of “One BC Hydro” records classification; this will provide employees with a common framework and language that will allow us to file documents and manage our enterprise information in a more consistent way. The key efforts over the next four years include:

**Records Information Management System** - RIM systems will manage records management practices, standards and tools in support of all business processes within BC Hydro. It will result in better compliance with our legislative and regulatory requirements for records retention, and operational efficiencies related to information search and retrieval, and electronic and physical storage.

**Enterprise Content Management Systems** - Information must be easily accessible so end users can browse, search, manage tasks and view content as well as electronic documents quickly. Implemented processes and systems must be able to manage document content and all associated metadata (properties) that further describes those documents to facilitate ease of use and control. Enterprise Content Management (ECM) presents processes and tools that enable check-in/check-out, version control, audit trails and document-level security for all kinds of document file types, including word processing documents, emails, Web pages, images, and more. The initial focus for ECM is EARG drawing and document control.

**Collaboration Systems** - These systems will implement the foundation for the use of collaboration software, including SharePoint, Instant Messaging, and Videoconferencing. This project does not directly support any of the operational projects, but supports the overall culture of "One Hydro. This effort has already seen successful implementation of basic capabilities and will go into a stage that optimizes

### Technology Foundation Improvements

The overall goals for “Technology Foundation” are to deploy an overall *lower Total Cost of Ownership (TCO)* environment that is scalable, extendable and aligned with BC Hydro’s needs. In order to accomplish the Foundation Improvement are deploying a technology environments that is:

- Integrated
- Simplified
- Standardized
- Virtualized

In order for BC Hydro to take advantage of modern technologies and lower the overall TCO, several areas of focus are critical:

**Enterprise Integration (ESB)** - This will allow applications to ‘speak’ to each other in a much simpler and more cost effective manner. With the use of an ESB, individual integration points or interfaces do not need to be rebuilt for each upgrade, saving time and money. This is a technology foundation required for all of the business systems and will further enable BC Hydro to leverage SAP.

**Virtualization of Servers and Storage** - Virtualization is a major trend within Utilities and in other industries. It allows BC Hydro to take advantage of the investments we have made in Servers and Storage to create higher levels of utilization, lower TCO as less investment is required to accommodate growth and a significantly improved ability (e.g. lower cycle times) to deploy additional storage or servers.

**Telecom Modernization**- This will provide an end to end integrated network across all of the business. It will integrate wireless, fiber, and radio under an IP (Internet Protocol) based environment. These will be seamless and available through mobility, remote access, generation plants, field offices, and our business offices. This will integrate with BCTC and will also integrate without collaboration capabilities (described above) to help lower the Total Cost of Ownership (TCO) for Telecom.

**User Interface Architecture** - User Interface Design & Usability play a key role in ensuring the success of enterprise processes and applications. End users are often required to interact with multiple systems as part of their work routines and administrative duties as employees. When these enterprise systems lack a cohesive user interface design, there is a high cost to the company. Over the course of the next four years, the intention is to define the UI standards that each project will be expected to deploy.

**PC Simplification, Segmentation and Modernization** - While the PC environment has few standards and has allowed users to define its individual requirements leading to a high coast environment, this effort will put in place role-based segments. The role based segments will drive the type of device and the image on the device thereby significantly lowering the TCO as well as standardizing the systems on the PC and taking advantage of modern office automation.

**Integration of Digital and Physical Security** -In today’s world, given world events and the need to raise the level of security to NERC standards, it is critical that security be viewed end to end from a people, process and technology perspective. That means designing technology into the processes people use and tools used by the people. Whether it is a camera mounted on a spillway wall sending critical data to security controls centers to intelligent access and security cards, the technology is the foundation to

which the integrated security is delivered. The key components include data bases for prevention, detection and investigation and management reporting, information security access systems, telecommunications (wireless, microwave and fixed line) and end devices (cameras, sensors, perimeter management, handhelds, and video). The security envelope is tempered by the degree of risk associated to the area. Each facility, or the points between the facilities, is assessed as to the risk. The complete campus will have a security plan. Those plans and the associated investment are based on the risk assessment.

**Tested and Reliable Disaster Recovery** - We currently have built and are operating a disaster recovery and back up facility in Calgary. The build is complete with equipment installed. We can provide disaster and back up services and are currently migrating the applications and databases. Approximately 10% of the applications have been migrated and this will continue over the next two years.

**The Project Plan**

In F10 we developed a set of key projects designed to meet the business process and objectives needed for both the enterprise and the individual business units. As well, the work began to improve the aging IT&T assets and build the foundation of stable, reliable infrastructure needed to support where the business is going.

The IT&T governance group has been overseeing these key projects along with a constant evaluation of business priorities and the changing business environment. As a result, the plan reflects the status of the current projects underway along with the priorities and changes. F11 will continue to see the build out of the foundation and key operational projects but in some cases they have been scaled back, extended in time, or stopped.

In defining the projects to be undertaken in IT&T this year and the coming 3 years, key principles were established:

- Each project stands on its own business case
- Highest priorities are to deliver foundation needs of the business and those delivering the highest business value
- Risk has been assessed and is manageable
- The work must be doable given the constraints of resource availability, funding and technology
- Key resources are assigned full time to the projects
- Interdependencies to other work in BC Hydro and projects have been considered.
- Work is performed in an incremental manner, i.e. systems and functions built out to meet a prioritized list of needs
- Projects delivered cost effectively and with total cost of ownership in mind

A brief description of each major project is described below.

BUSINESS AREA	PROGRAM	PROJECT	DESCRIPTION
Serve Customer	Customer Strategy	CRM	Extend the customer system to include relationship management capabilities
Manage Energy	Distribution Management System (DMS)	Wave 1: initial functionality Wave2: advanced functionality	Implement the core distribution management capability into the distribution network
	Customer Side	Demand Forecasting	Implement the initial system for calculating, analyzing and reporting demand forecasts (For BCH & BCTC)
Manage Assets	Distribution Assets	Strategy	Definition for future direction of how asset information is managed
	GIS	Strategy	In concert with asset strategy, definition of geographic information system for future use
Manage Work	Projects and Portfolio Management (PPM)	Wave 1: implement new capital project solution in EARG Wave 2: Additional functionality in EARG	Design and build a capital project business process and systems solution to accommodate small, medium and large projects. Provide consistent process and management reporting

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		Wave 3: Implement in Field Operations Wave 4: Implement in Properties and ITT	for all BCH capital projects
	Work (operations & maintenance)	Wave 1: implementation of initial work design for Field operations Wave 2 : advanced solutions for field operations and EARG	Design and build plan, schedule and work (people, materials and equipment) for operations and maintenance.
Manage Goods & Services	Supply Chain	Wave 1: implement functionality to support work program Wave 2: migrate P2P program to new software	Design and build process and systems solutions to support the business process needs for the work program.
Manage safety, health and environment	SHE enterprise	SHE enterprise reporting	Provide consistent corporate wide reporting for safety, environment and health. Includes process integration with safety by design programs.
Manage Financials	FSR	Wave 2 (Wave 1 is being implemented in F10)	Design and implement additional capabilities in the new financial systems including budgeting, analytics and treasury
Manage People	HR	HR /Payroll Strategy	Definition of business processes and solutions for human resources and payroll
		Wave 1	Design and build high priority solutions for workforce planning, HR and payroll
		Wave 2	Second project TBD
		Wave 3	Third project TBD
Manage Corporate Support	ECM (document management)	EARG drawing and document management	Providing electronic capability to EARG documentation.
	RIM (Enterprise wide Records Information Management)	Wave 1: Legal, Regulatory, SMI, Site C Wave 2: EARG Wave 3: HR, Properties, SHE Wave 4: Field Operations Wave 5: Procurement, Finance, CC&C Wave 6: Corporate affairs, Executive	Design and build a corporate records management system for both physical and electronic information. Includes corporate classification and retention. Note: OCIO and Board are being implemented in F10.
	Collaboration	Wave:2 advanced functionality and broader coverage Wave 3: continuation of advanced functionality and broader coverage	Implement a series of communications tools to allow business to communicate more effectively and reduce travel. Includes messaging, social networking, video, audio, base SharePoint office systems

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In support of the business, there are a number of technology-based projects. These solutions, once implemented will allow the business to carry out their business with more reliability, with more safety and with better performance and access. SMI has also been incorporated into these solutions where appropriate, particularly in the areas of telecommunications, data management, security, and application interfaces.

BUSINESS AREA	PROGRAM	PROJECT	DESCRIPTION
Technology	ESB (enterprise service bus)	Wave 1: FSR, PPM, DMS Wave 2: important applications	Design and build a common interface environment for applications to integrate efficiently
	Virtualization	Servers Storage	Build software that reduces the physical footprint for servers and storage and allows for dynamic allocation of equipment to reduce operating costs and provide a greener footprint
	Telecommunications	Local & Wide Area Networks (LAN/WAN)	Upgrades to the fiber network to provide better connectivity to BCH facilities and intelligent equipment
		Network renewal	Upgrades to the microwave network that provides communications across the transmission network
		Voice Systems	Upgrades to phone systems and equipment including voice over IP
		Radio Systems	Design and build emergency management system for the lower mainland, field operations communications and generation site communications
	Security	Wave 1: information systems Wave 2: integration of physical devices and security control	Improvements to the IT&T systems to better alignment with NERC CIP (critical infrastructure facilities) standards including integration with physical services. Integrate physical devices (e.g. cameras, control systems) with IT systems
	Disaster recovery	Wave 1: Critical applications Wave 2: Important applications	Implement full real time recovery systems for key business applications (currently underway and extending into F11)
	Operations	Wave 1: Improvements to service delivery Wave 2: Planning for end of ABS contract Wave 3; implementation of new service model	Implement improvements to service from BIS, CIO, and ABS over the next three years. Analysis of options for end of current contract. Implementation of new service model.

The project plan summary is depicted below.

Business Area	Program	Project	F2011 Q1	F2011 Q2	F2011 Q3	F2011 Q4	F2012 Q1	F2012 Q2	F2012 Q3	F2012 Q4	F2013 Q1	F2013 Q2	F2013 Q3	F2013 Q4	F2014 Q1	F2014 Q2	F2014 Q3	F2014 Q4
Serve customer	Customer Strategy	CRM																
Manage Energy	DMS	Wave 1: initial functionality Wave 2: advanced functionality																
	Customer Side	Demand Forecasting																
Manage Assets	Distribution Assets	Strategy GIS Strategy																
Manage Work	PPM	Wave 1: EARG base Wave 2: EARG advance Wave 3: Field Ops Wave 4: I/P/Properties Wave 1: plan schedule base work Wave 2: FO advanced																
Manage goods & Services	Supply Chain	Wave 1: support work program Wave 2: P2P Version 2.0																
Manage SH&E	SHE Enterprise	Enterprise Reporting																
Manage Financials	FSR	Wave 1: Functionality																
Manage People	HR	Wave 1: HR/Payroll Wave 2: HR/Payroll Wave 3: HR/Payroll																
Manage Corporate	ECM RIM	EARG Drawings Wave 1: Legal/Regulatory/SW/Std C Wave 2: EARG Wave 3: HR/Properties/SHE Wave 4: Field Operations Wave 5: Procurement/Finance/CC&C Wave 6: Corporate Affairs/Executive																
Technology Foundation	ESB Virtualization Telecom	Phase 2: Important Applications Wrap Up LAN/WAN Network Renewal Voice Systems Radio Systems																
	Security	Wave 1: Information Systems Wave 2: Integration w/Physical																
	Disaster Recovery	Wave 1: Critical Applications Wave 2: Important Applications																
	Operations	Wave 1: Service Improvements Wave 2: Next Steps Planning Wave 3: New Service Model																

### The People Plan

In the first year of the plan, a number of key organizational changes were made to better service the business needs of the company and to improve the service delivery of IT&T. They include:

1. Establishment of an executive governance group to oversee the IT&T investment and that IT&T was delivering to the business objectives and priorities.
2. Establishment of roles for the different organizations involved in the plan, design, build and operate functions for IT&T including BIS, CIO and ABS.
3. Establishment of business process function that would be accountable for the development of company-wide business process solutions (One Hydro).
4. Establishment of a single manager accountable for the telecommunications investment. Currently dispersed over 4 separate areas of the company.
5. Establishment of a single technology architecture group to oversee the technology directions for the company.
6. Establishment of a single PMO and business management function to oversee the IT&T projects, resources and financial expenditures across the company.
7. Establishment of joint working groups with IT&T and Security and IT&T and BCTC to optimize resources and investment and provide more complete services across the enterprise(s).

In year 2 and beyond, a number of continuous improvements are underway.

**GOVERNANCE:** The IT&T governance group, comprised of senior business leaders, meets monthly and has decision-making authority on IT&T investment and priorities. The governance oversight is working well but needs to some minor refinement. ET and the AMRC information requirements are being better defined to ensure the group will meet their needs.

**SECURITY JOINT OVERSIGHT GROUP:** This group is comprised of key security managers from all areas of BC Hydro. We are currently developing of an overall plan to provide integrated security services. The Plan includes physical and electronic services delivered physical locations across BC Hydro. It is being prepared for ET in December. Implementation actions will begin immediately after approval of the plan and has been planned in the F11 work.

**BCTC IT&T JOINT WORKING GROUP:** This group is in the process of developing the terms of reference, principles and governance model for delivering telecommunications to both BC Hydro and BCTC. Investment and technology decisions must meet both companies' needs.

**BUSINESS INFORMATION SERVICES (BIS):** This is the liaison group between business and technology. There are still areas of challenge in terms of roles and what functions are being performed and how they deliver to meet their specific business needs and meeting the overall company needs. These areas will be addressed in the next 6-12 months.

**SMI:** The SMI technology team and the CIO technology team are well integrated. To ensure consistency there is a dotted line reporting to the CIO's office and technical sign off should be expected.

**CIO:** The organization will remain a relatively small group responsible for business process, technology and financial investment in IT&T. Key activities for this group include: business continuity work, improving operational service delivery and a significant cost reduction program.

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**TELECOM:** While there is a single manager oversight to all of telecommunications investment in BC Hydro, the execution of work has not been as effective as it could be. It is difficult for clear accountability and that needs to change. A review as to where some improvements might be underway with recommendations expected in fall 2009.

**ABS:** Recently, Accenture has changed their top management and introduced two senior Accenture managers in to the ABS organization. There is currently a review underway but it is anticipated that there will be changes to the services being delivered to be more aligned with BC Hydro's business directions and that there is more joint management activities underway.

The table below outlines the responsibilities, and who is acting as the Prime on each.

Function	Business	CIO			Outsource	
		Telecom	Inf	BP/App	Other	ABS
<b>Business</b>						
Concepts and Initial Work	P	P	P	S	S	S
Business Case	P	P	P	S		
Business Analysis	P				S	S
Process Architecture	S			P		
Process Design	P			S		
Process Advisory	P			S		
<b>Enterprise Projects</b>						
Report Design	P			S	S	S
Report Build				S	P	P
Technical Architecture	S	P	P	P	S	S
Technical Design	S	P	P	P	S	S
Technical Build		S	S	P	P	P
Technical Test		S	S	S	P	P
User Test	P			S	S	S
Change Management	P			S	S	
Training	P			S	S	S
90 Day Support	P			S	S	S
<b>BIS Projects (primarily ID &amp; AD)</b>						
Report Design	P			S	S	S
Report Build	S			S	P	P
Technical Architecture	S	P	P	P	S	S
Technical Design	S	P	P	S	P	P
Technical Build		S	S	S	P	P
Technical Test					P	P
User Test	P	S	S	S	S	S
Change Management	P			S	S	
Training	P			S	S	S
90 Day Support	P					S
<b>Operations</b>						

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First Line Help	P			S		S
Super User	P	S				S
Technical User Support	S	P				P
Application Owners	P			S		
Enterprise AM				P	S	S
Non-enterprise AM	S			S	S	P
Infrastructure Management			S			P
Operations		P	S	S	S	P
DRP	S					P
<b>IT&amp;T Business</b>						
Resource Management	S	P	P	P		S
Financial Management	S			P		
Contract Management				P		
Enterprise SOW's	S			P		S
Business Group SOW's	P					S

**The Financial Plan**

The IT&T financial plan for investment in information technology and telecommunications is aligned with the business needs for both the projects and operations. In addressing the investment needed to deliver and maintain reliable systems for the business, we also considered the current economic conditions that exist as well as benchmarks from other leading utility companies.

With respect to the benchmarks, key aspects were considered: IT investment versus revenue and investment in run grow and transform. While we are well aligned with total IT investment for large, integrated utilities (i.e. 3.5% of revenue), our percentage investment in run, grow and transform are somewhat different than benchmarks due to our business needs.

In our first year of the plan, the OCIO's office consolidated the majority of the IT&T investment. This was the first time the company had a complete view of the spend, both capital and operating. With the full picture of investment, under the direction of the IT&T governance group, prioritized capital projects were funded and focussed cost reduction program were implemented in operating budgets.

**IT&T OPERATIONS**

IT&T operating costs include the labour, hardware and software, telecommunications, outsourcing and expenses related to operating the systems at BC Hydro. Most of the costs are managed from the CIO's office while the remaining cost is managed within the business units. F10 Operations costs include:

ABS OMA costs:	\$35million
OCIO OMA costs:	\$23million
Business unit IT OM costs:	\$11million
Capital & IOMA Projects (OCIO & BG):	\$103million
<b>Total:</b>	<b>\$172million</b>

In F10 we have or plan to realize significant annual cost reductions in operations and capital spend:

• Elimination of VRC (variable rate card) expenditures	\$ 14,500,000
• Reduction in telecom air time costs and volume	\$ 800,000
• Avoidance of software maintenance costs	\$ 2,000,000
• Reduction in printer maintenance costs	\$ 480,000
• Avoidance of future spend on PC's	\$ 1,500,000
• Reduction in spend on servers	\$ 1,600,000
• Reduction in spend on storage	\$ 1,000,000
• Avoidance of spend on application maintenance	<u>\$ 2,000,000</u>
• <b>Total</b>	<b>\$23,880,000</b>

Despite these actual and planned reductions, the IT&T OMA costs increased overall in F10. This was primarily due to the increase in headcount for operating and capital work. Much of the OMA expenditure is affected by headcount.

Our plan includes a continuous improvement program that will continue to reduce cost of operations over the coming 3 years. For F11, we are continuing to drive our base operating costs down. Specifically, a key area for BC Hydro is in reductions in operating costs from ABS operations both from a volume perspective and a unit cost perspective. Along with that initiative, we are also expecting

savings from negotiations in hardware, software and telecommunications. IT&T staffing will be capped or reduced as appropriate.

**CAPITAL PROJECTS**

The capital plan is based on the projects that were described in the previous section. In F10 we are focussing on transformational work and thus have reduced approximately \$14 million in other capital work previously done at VRC (variable rate card) work through our ABSBC agreement.

The capital plan includes three types of projects:

**Transformation Projects.** They are comprised primarily of key business projects that are intended to deliver high business value to BC Hydro customers or operations. They typically are One Hydro in nature and deliver the value across the organization. These projects have significant transformation of the business and require a higher investment. They also provide significant business value and are driven by a clearly defined business case.

**Grow Projects.** These projects are broken down into two areas: business and technology. For the business projects, each of the business units identified work to be done to improve the day to day business operations with smaller but important projects that included business process redesign. For technology, it includes incremental improvements to existing systems.

**Run Projects.** The capital investment required to keep current IT&T assets operating effectively and with minimal risk to the business.

Originally, the five year IT&T plan (created last year) reflected an investment plan matched to our service and business plans. This showed an increased investment in our aged assets along with process and system improvements. The investment plan included:

F10	\$90m - Currently on track for \$84m expenditure
F11	\$75m
F12	\$73m
F13	\$89m
F14	\$66m

The IT&T governance group assessed the plan, changing business needs and economic conditions. First, we analyzed our ability to perform the work with all the competing priorities. Second, we looked at the changing business plans around aged assets and foundational work. Third, we incorporated changes to budgets and plans with respect to the economic conditions. As a result, we have modified our investment plans.

For F11, the capital plan was reduced from \$90m to \$75m. It is broken down as follows:

Transformational Project Investment:	\$31m
Grow Project Investment:	\$37m
Run Project Investment:	\$ 7m
<b>Total</b>	<b>\$75m</b>

The key changes are primarily due to a reduction (stop some work or extend work) in the transformational work and the run work. In transformation, we maintain the key work that provides

the highest business value. The run work reflects a reduced amount of smaller changes to existing environments with the least impact on the business.

F12, F13, and F14 have remained unchanged. During this year we will also be assessing the SMI implications as that project gears up.

**The Risk Mitigation Plan**

While the similar overall IT&T plans have been delivered by other organizations and Year-1 had many accomplishments, achieving the goals for the next four years has many risks that need to be actively managed.

<b>Risk Area</b>	<b>Level of Risk</b>	<b>Brief Description</b>	<b>Risk Management</b>
<b>Scope &amp; Alignment</b>	High	Ability of BC Hydro to clearly articulate the objectives, key processes and focus on the top priorities for IT&T to enable	Quarterly reviews of the IT&T plan and increased integration of BIS Managers into the Business Units
<b>Technology</b>	Low	The technologies ability to be successful implemented within the BC Hydro environment	The IT&T plan is based upon proven technologies with several successful implementations
<b>Organization and Labour</b>	Very High	Ability for BC Hydro to find the right personnel to deliver the plan	Secure commitment for personnel based upon today's economic environment and leverage multiple partners longer term
<b>Schedule</b>	Moderate	Ability for BC Hydro to deliver the IT&T plan per the timeline	Schedule is based upon case based estimates with varying of contingency built in, however, will be actively managed at appropriate stage gates
<b>Financial</b>	Moderate	Ability for BC Hydro to deliver the plan within the budget outlined	Same as schedule
<b>3<sup>rd</sup> Party</b>	Moderate	Ability for 3 <sup>rd</sup> parties (specifically Accenture with a potential Labour issue) to support the IT&T plan	Active dialog (at least monthly) with key 3 <sup>rd</sup> parties and continued scorecard evaluation annually
<b>Adoption &amp; Value Realization</b>	Very High	Ability of BC Hydro to gain the value from the IT&T plan and successfully manage the organization change	Leverage the overall Change Management team within BCH and seek help from 3 <sup>rd</sup> parties; additionally, ensure Change Management and Business Value Realization are built into all project plans

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**F2012 to F2014 Revenue Requirements Application**

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**Appendix**

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**BC Hydro Information Technology &  
Telecommunications Five Year Plan – Year 2**

**(September 30, 2011)**

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BC Hydro Information Technology &  
Telecommunications  
Five Year Plan – Year 2

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F11 Mid-Year Update

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## Executive Summary

BC Hydro is in the second year of a five year Information Technology and Telecommunications (IT&T) plan that is intended to help enable BC Hydro achieve its overall mandate to generate, purchase, distribute and sell power and meet the need in B.C. in a cost effective and reliable manner. The specific focus is on the “Short Term Priorities” for Climate Change and Environmental Impact, Energy Conservation and Efficiency, Reliability, Energy Security, Safety, Customer Satisfaction, Financial Targets and People.

The IT&T plan is based upon the principle of “One Hydro” and a few important strategic intents:

- **Enable the Business:** Enable the business and align technology investments with most important, enterprise-wide priorities to increase efficiency and productivity, improve decision making, and improve service
- **Simplify Work Processes for more Tool Time:** implement key integrated technologies to help automate/eliminate administrative burden and increase the ability for people to spend “time on tools”
- **Simplify, Standardize and Integrate the IT environment:**
  - Simplify the application environment with SAP as the core
  - Simplify, standardize, modernize and virtualize the technology foundation
- **Highly sourced:** Leverage a highly sourced environment to deliver high quality service at a low cost point
- **Information as a Service:** create a foundation of data that can be delivered efficiently and accurately

At the core of the plan is business transformation, building improved processes and related systems, on a solid technology foundation.

The business transformation work includes the following:

- ERP – Finance and HR
- Asset Management
- Work and Resource Management
- Program & Project Management
- SMI and Smart Grid

The supporting technology foundation is built by a core set of new/enhanced technologies including:

- Desktop Upgrade
- ESB
- Integrated Portals
- Storage Virtualization
- Telecom upgrades
- Integrated Security

These technologies enable the “One Hydro” process model to:

- Simplify the work and business process environment and increase productivity
- Create the infrastructure foundation that increases collaboration and standardizes the environment
- Make processes more intuitive and increases personnel productivity

Having established a solid foundation, BC Hydro will have the confidence to evolve and absorb new technologies to meet the changing business environments such as distributed generation and smart grid. IT&T will deliver these key technology advancements through deployment of a few key principles:

- Business planning drives business process design which drives IT&T
- End-to-end process design for simplification and consistency of business processes
- Improved worker safety through the integration of safety into all business processes and systems and to support work / life balance
- 80/20 rule for design and build and design for “tool time” at the front line worker level
- Utilize existing investments, where possible, in IT&T assets

These key principles are delivered through a strategy of incremental building blocks. These building blocks are based on value to business, minimized risk and ensuring the projects are doable within the businesses. Also, as we build out incrementally, we are increasing our knowledge and skills to ensure future work and implementations are performed optimally and with minimal risk.

Year 1 of the IT&T plan achieved many successes while at the same time aligning to the new financial realities including:

- reducing cost of base operations by \$9.3m

- launching delivery of SAP for Finance incorporating IFRS requirements
- launching new procure to pay processes and system
- initiating enterprise wide document management
- initiating Program and Project Management system implementation
- beginning early stages of implementation for key productivity technologies (e.g.. Instant messaging)
- significant improvements in IT&T delivery

Additionally, we established an IT&T governance structure that was invaluable in setting the foundation for not only clear direction on the projects and operations but also to focus the organization on the change management and do-ability of the work at hand. The governance group is comprised of senior business leaders who have direction oversight of the business operations and can interpret the need for technology enablement into their business and the overall BC Hydro perspective.

While Year 1 was a good beginning, the next four years present many challenges as IT&T expects to deliver the important technology improvements through capital investment while at the same time continuing to lower OMA, improving IT&T service delivery through continuous improvement and evolving with the increasing demands placed on technology.

Moving forward, it continues to be critical for BC Hydro and IT&T to continuously align with the changing BC and BC Hydro environment, actively managing the capacity in which the business can implement new technologies, address organization change management and remain focused on the top priorities. We will continue to address key technology foundational and business transformational work.

**Introduction**

In F11 BC Hydro will be in the second year of a five year information technology and telecommunications plan. The Executive Team has defined the goals and objectives for IT through its business plans and service plans. The IT&T plan is will enable the business units' operational plans, putting in place an appropriate IT foundation while at the same time transforming IT to become simpler, more integrated, modernized and lower cost. This will mean short-term investments to lower the Total Cost of Ownership (TCO), changing business process, standardizing technologies, and putting in place strict controls and governance to optimize asset utilization and eliminate one-off, throw away investment.

IT&T has designed a 5-year journey to achieve the outcomes of our plan. Year 1 saw many challenges and accomplishments with some important updates, yet our fundamental strategic intents and goals remain unchanged:

Strategic Intent	F'09	Goals	Business Value			
			Lower Cost	Efficiency	Better Decision Making	Improved Service
Enable the business and align technology investments with most important, enterprise-wide priorities	Localized BU investments with limited enterprise-wide transparency	Enterprise-wide investment decision making focused on top BC Hydro priorities	✓	✓	✓	✓
Simplify work processes and provide more tool time	Processes designed for specific and local use with limited capability beyond specific function	Efficient processes that remove barriers and focus on automation of transactional work. Apply to the whole organization	✓	✓	✓	✓
Simplify the application environment with SAP as the core	600+ applications and 200+ databases including four large ERP systems	Simplified integrated applications with SAP as the core <ul style="list-style-type: none"> <li>• &lt;30 applications</li> <li>• &lt;50 databases</li> <li>• SAP as ERP</li> </ul>	✓	✓	✓	✓
Simplify, standardize, modernize and virtualize the technology foundation	Highly complex environment with device proliferation and under-utilization of assets <ul style="list-style-type: none"> <li>• 5000 desktops</li> <li>• 3000 laptops</li> <li>• &gt;80 desktop images</li> <li>• 700+ servers</li> <li>• 75+ TB storage</li> </ul>	Virtualized and controlled environment for lower cost and improved responsiveness	✓	✓	✓	✓
Leverage a highly sourced environment to deliver high quality service at a low cost point	Single primary provider of IT Services with limited integration into OCID	Integrated end-to-end services with key IT Service Providers	✓			✓
Information as a Service	Disparate information with poor overall quality	Clear information architecture and "single source of truth" with high quality			✓	✓

The first year of the plan made significant gains in meeting the BC Hydro's business objectives. Principles and priorities were established. Major headway was made into designing and building process redesign and technology foundations.

BC Hydro established and is implementing the key principles that were developed last year. These include:

- Business planning drives business process design which drive IT&T
- End-to-end process design for simplification and consistency of business processes.
- 80/20 rule for design and build
- Design for "tool time" (e.g. increased productivity and automation of transactions)
- Single source of information and reporting
- Utilize existing investments, where possible, in IT&T assets
- Consistent and effective governance and operations

- Project Management automation launched
- Enterprise document management system started
- New procurement processes and systems launched
- Enterprise wide processes defined for the company
- Early stage implementation of key productivity technologies including video conferencing, office communicator (instant messaging, desktop sharing, etc.) and knowledge management
- Key technology foundation renewals began in infrastructure, security, disaster recovery and telecommunications
- Improvements to IT&T delivery were made in governance, business process delivery, technology architecture delivery, project management delivery and operations

The corporate wide investment in IT&T was consolidated and prioritized. The operational expenditures account for \$69 million while the capital planned expenditure is \$90 million. A number of financial improvements were made and resulted in reduced capital and operating costs of \$23million. Those reductions have been realized however our technology costs continue to grow due to growth in the organization. Subsequent plans are in place to further reduce IT&T costs.

Moving forward, it continues to be critical for BC Hydro and IT&T to continuously manage the delivery of the plan while keeping it aligned with the ever changing environment. The most significant risks to the plan and achieving the value are:

- Capacity – Ensuring the appropriate business and IT resources are available to make Projects successful. We are making significant IT investments with significant business change that requires a tremendous amount of effort from the business and IT.
- Organization Change Management - Continuing to focus on change management and optimizing the people resources to focus on key priorities is imperative. Doing this well will ensure that the organization is prepared for the changes it is making.
- Business Value Realization – Ensuring that appropriate processes are in place on every project to understand and work with the business to realize the business value.
- Ability to stay focused – addressing the complex environment that BC Hydro has built will take time and it is important for BC Hydro to stay the course and let the structural changes take effect.

#### *Business Goals and IT&T*

BC Hydro has clearly defined its goals and objectives within its Service Plan and the company is going through a transformation of its business while we deliver on our key business objectives for reliability, safety, efficiency and simplicity, integrity and fiscal responsibility. The role of IT&T is the development of solutions is to support and enable those goals and objectives to be met. We have established important strategic intents and the associated 5-year stretch targets for IT&T in order to help BC Hydro achieve its overall goals and objectives.

- BC Hydro Goals/Short-Term Priorities
- Climate change and environmental impact - to have no net incremental environmental impact by 2024 when compared with 2004.
  - Energy conservation and efficiency - Develop and foster an energy conservation and efficiency culture in B.C. that leads to customers choosing to make a dramatic and permanent reduction in the use of electricity.
  - Reliability (CUSTOMER) - Provide best-in-class reliability by customer segment.
  - Energy Security (SUPPLY) - meet all domestic energy needs.
  - Safety - provide the safest work environment compared with the best performers in any industry, where not one of our employees will experience a serious work-related injury.
  - Customer Satisfaction - lead by offering extraordinary value and service.
  - Financial Targets - Maintain low costs for electricity customers in B.C. over the long-term, while consistently delivering 100 per cent of forecast net income.
  - People - To be a top employer for generations.

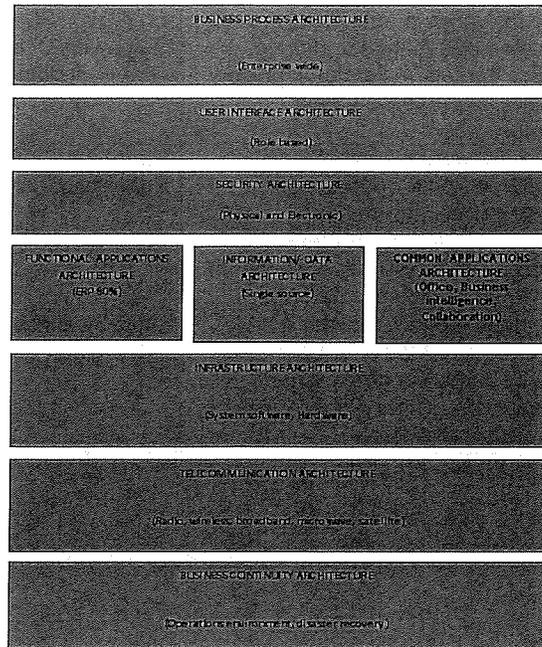
- IT&T Strategic Intents
- **Enable the Business:** Enable the business and align technology investments with most important, enterprise-wide priorities to increase efficiency and productivity, improve decision making, and improve service.
  - **Simplify Work Processes for more Tool Time:** implement key integrated technologies to help automate/eliminate administrative burden and increase the ability for people to spend "time on tools"
  - **Simplify, Standardize and Integrate the IT environment:**
    - o Simplify the application environment with SAP as the core
    - o Simplify, standardize, modernize and virtualize the technology foundation
  - **Highly sourced:** Leverage a highly sourced environment to deliver high quality service at a low cost point.
  - **Information as a Service:** create a foundation of data that can be delivered efficiently and accurately

IT&T Goals	IT&T 5-Year Targets
Enterprise-wide investment decision making focused on top BC Hydro priorities	Single, enterprise-wide investment plan and governance group
Efficient processes that remove barriers and focus on automation of transactional work	80% reduction of transaction process labour hours
Simplified integrated applications with SAP as the core	<300 applications <50 databases
Business satisfaction	SAP as ERP TBD%
Virtualized and controlled environment for lower cost and improved responsiveness	75% virtualization of storage and servers 1 PC per office worker <10 PC images
Integrated end-to-end services with 3-4 key IT Service Providers	>85% of external spend on strategic suppliers
Clear information architecture and "single source of truth" with high quality	Information architecture established and meta data model deployed
Lower cost of IT	30% reduction of IT&T OMA as a % of BC Hydro OMA
Predictable IT project delivery	90% on-time, on-budget, on-scope of top priority projects

These Strategic Intents, Goals and Targets are an aspiration and represent a transformation of IT&T within BC Hydro. It is expected the journey towards achieving these aspirations will be a challenging one.

In order to get there, the BC Hydro business process and operations plans drive the solutions and priorities for IT&T. Each of the cross functional process are designed to deliver the business goals and objectives of climate change & environmental impact, energy conservation & efficiency, reliability, energy security, safety, customer satisfaction, financial targets and people:

Our IT&T future state incorporates the goals and objectives previously stated. Below is a diagram reflecting the overall solution.



Along with ensuring the business goals are being met, IT&T is continuously reviewing industry trends and incorporating them into our plans with many of the current industry trends already included into our plans.

<b>Key Trend</b>	<b>Brief Description</b>	<b>Case Examples</b>
Move towards integrated, enterprise class solutions	Deploy integrated ERP-like systems to better integrate the utility, gain the value of single-source-of-the-truth and the associated IT cost reductions	Hydro One, PG&E, TXU, CenterPoint, Puget Sound Energy, Southern Cal Edison, Allegheny Power, Florida Power and Light, ERCOT, Energy Australia, EDF
Virtualization	Virtualize all mature elements of the environment and begin to "pilot" a privatized cloud environment to gain better leverage from asset investment plus significantly improved serves	Southern Cal Edison, PG&E
Smart Grid	Investigate and deploy a Smart Grid strategy and associated Smart Grid technologies	Alliander, City of Amsterdam, Bord Gais, Snam Rete Gas, FSK, ComEd, ERDF, Jemena, SP Ausnet, Xcell Energy, SCE, PG&E, Northeast Utility/CL&P, PPL Corp, Singapore Energy?, Powercor-Citipower
Mobility	Leverage current mobile environment and explore further approaches to get people into the field and enable them with technology	ComEd, Consumers Energy, EDF, FirstEnergy

Predictive Analytics	Create information architectures and associated automation and drive analytics that are insightful and allow personnel to proactively help customers	Entergy, PPL Corp, Key Span, Eskom, Edipower, United Utilities, RWE Innogy GmbH, Reliant
Simplification and Rationalization	Examine the overall technology environment (both operational technology and information technology) and develop a plan to reduce device proliferation, eliminate software, and eliminate databases.	Hydro One, AGL, Constellation, E.ON, Enbridge Gas
Collaboration	Put in place modern tools to enable collaboration across physical proximity and boundaries to gain leverage from a highly mobile and more virtual work force	United Utilities, Schlumberger, BP, Accenture

*Governance*

IT and T uses several approaches to ensure good governance of IT across the organization.

Business Alignment - The governance group was established with senior managers from the key operating units (Transmission and Distribution, GENERATION and Customer Care) along with corporate groups (Safety, HR, Legal, Finance, corporate communications and strategy). This group focuses on ensuring BC Hydro achieves business value, simplification of processes, enables reliability and safety goals, and is doable with minimal risk to the organization. They set priorities and make decisions on key considerations and to date has been very successful.

Project Success - The engagement of key people throughout the organization to work on key projects has increased the project success levels. These people have been assigned full time to the projects which has allowed not only the expertise needed to be applied but to be focussed on the job at hand.

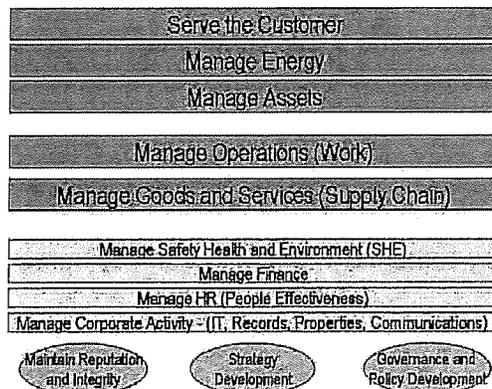
Compliance with Standards – we are moving from an environment of fragmented, proliferation of technology to one that is more controlled with compliance to standards enforced. In the future years, we will be creating a set of processes working with our strategic partners to better gain compliance to these standards and increase control of the IT environment.

**Business Process Enablement - One Hydro View**

IT&T should enable the business to achieve its goals and strategies. Specifically, how IT&T is managed, how projects are delivered and how day to day operations support the business is critical to the success of meeting these objectives. The directions are very much focussed around "One Hydro". This requires a convergence of business process and technology solutions to be more aligned with the single enterprise view. What "One Hydro" represents to the business process and technology investment is that we look at cross functional processes that drive solution designs into the business groups and develop technology solutions to address enterprise needs first and foremost. IT&T has put in place a framework of processes (see diagram) to help:

- Integrate processes and technologies to foster a "One Hydro" approach and the associated benefits of increased productivity, efficiency and an end-to-end customer based view
- Maximize technology return on investment
- investments in the most critical business process areas that will help BC Hydro achieve it strategic objectives
- Create a single source of truth for information, captured once and delivered to all levels of the organization as they need.
- Simplification of management and operational reporting and provide the confidence of accuracy and timeliness.

**BC Hydro Process Model**



Taking this approach required significant changes to the way IT&T operated in the past. Specifically, it will enable BC Hydro to have at least 50% of the investment to go towards “transform” vs. the <30% in prior years investments. To fulfill the strategy to support the business, there are three key principles that have been implemented:

1. The business plans drive the integrated processes and priorities.
2. The business process architecture defines business operational processes to run the business. The processes address the enterprise (common processes) business as well as the business groups.
3. The technology architecture enables the business processes to meet the business objectives and includes the applications, information/databases, infrastructure, and telecommunications solutions required to deliver the business processes.

The subsequent sections of this report described the process and systems solutions under these scenarios.

### **Manage Customer Processes & Systems**

BC Hydro is “transforming the customer relationship”. These changes range from the strong leadership we have taken in conservation to understanding the operational changes that will come from the implementation of smart meters and intelligent devices. As well, new and more complex rate structures are being applied for and implemented. These changes will drive changes to our processes, systems, data bases and communications (internally and externally).

How we look at each customer will become much more personalized and the information we provide them will be based upon a human centered design. Who, what they need, and where people are in the province, will define the way in which we service our customers. Having tools to analyze and deliver these services will be much more specific and intuitive for our customers.

New processes are being developed to address these changes to the business. Existing processes are being simplified where possible and new processes are being designed to address emerging customer requirements. Key process changes include:

- Work management processes related to billing, service and repair
- Processes to handle the volume and complexity of data streams coming in from the smart devices

*Technology Direction*

The technology platforms to enable the business will require changes as well. The core system we implemented 4 years ago, the SAP Customer Information System (CIS) will be foundational to build upon and key new technology based capabilities that create more personalized service, greater access to information via the web, as well as deliver insight to our employees will be deployed including.

- Customer Insight: Implementation of additional capabilities through the use of Customer Relationship Management (CRM). This software allows for better analysis and process improvement in support of the customer service group. In addition to this type of technology, information will become more important and technology platforms will be re-designed to better access data and information
- Self Service: Self service will become a much more prevalent technology to support both the service and conservation processes. To be more responsive and to control costs related to service, this technology is required. Key self service capabilities include: bill pay, bill analysis, conservation programs and analysis, plus making self-service easy to use and personalized to that customer.
- Knowledge and teaching systems are being utilized to provide information to customers and employees. These systems include knowledge data bases and social networking capabilities available to both customers and employees.
- Intelligent and virtual call centers to be able to respond to varying levels of volumes.
- Critical updates for rates and conservation services – Our technology will continue evolve to align with direction regarding new Rate structures as well as providing new or enhanced conservation services.

These business process and systems changes are underway now. Over the next three years, the solutions will be built out incrementally and as the business needs them.

**Long term Planning – 5 to 20 years:** The processes and operations related to supporting load forecasting and long term planning has traditionally been laborious and difficult to perform. As well, each time the plan is produced, much of it is built from scratch. A redesign project has recently defined simplified processes and is currently defining technology solutions to support those processes.

**Medium range planning – 2- 5 years:** Similar to Long-Term Planning, this area is manually intensive and often “lost” when the hand-off occurs between long-term and operational planning. This area will be addressed with improved automation and integration of data into the processes being defined.

**Operational planning – Next day to 2 years:** These processes rely upon analyzing large amounts of data, interpreting the information and developing operational plans for the generation facilities and stakeholders. Incrementally improving the current systems and solutions is what is being contemplated and no significant process or systems changes are anticipated.

**Management processes needed for IPP’s:** As the IPP business activity grows, as it is currently doing, electronic document management processes and systems are required. Later, in the technology foundation section, these solutions are being described. A plan is going to be developed in F11 to determine how to leverage these solutions to provide a structured and cost effective solution for IPP management.

#### *Technology Direction*

It is recognized that BC Hydro is a leader in energy planning through the capabilities of the individuals and the analytical tools used. The direction for these areas is not to totally re-design how we perform this business but rather to provide better foundational systems and more systematic processes to reduce time and costs to produce the information as well as to better integrate the information across planning horizons and report against the plan.

The technology platforms needed to support the “Manage Energy Processes & Systems” require key foundational systems to be utilized and integration of data so the processes can be more efficient and require less re-work. Specifically, over the next four years the focus for IT in this area is:

Distribution Management System (DMS) – The DMS is a software solution that manages the data related to power flow and outages. It works by receiving data from intelligent devices out on the power network. It is an advanced system that will increase in functionality as we build out our network and add more analytical capabilities.

Demand Forecasting – One area that is manually intensive is in Demand Forecasting. In order to make this a more efficient process, new tools leveraging the information in other systems will be deployed to help automate this process and increase the accuracy of forecasts from a “statistical” point-of-view.

Structured data, improved analysis tools and the integration of new information/energy models - Review the processes and access of information in order to refine the data architecture, so that data is more structured, easier to access, and more relevant for the Energy Management processes across the planning horizons. Additionally, this process requires advanced analytic tools to maintain pace with modern technologies, especially as BC Hydro attempts to maintain its leadership position. This will enable BC Hydro to continue meeting the needs of its Customers, efficiently use the critical personnel in this area, and eliminate non-value added re-work.

### **Manage Assets Processes & Systems**

BC Hydro has a business strategy to improve its assets over time through an aggressive capital plan to improve generation facilities and improve the aging distribution and transmission assets. While BC Hydro does not currently have an overall management process to oversee the assets of the corporation, it does have targeted management processes in the three areas of generation, transmission and distribution.

**Generation Assets:** Assets for generation are created during the initial capital projects. The component/ subcomponent structure is established during the project and is updated into the asset system. The current capital project underway will be updating the financial asset management system being implemented. There is currently no plan to integrate this asset registry with transmission or distribution asset registries.

There is however a requirement to improve the process and systems supporting the maintenance functions once the asset has been commissioned. As we implement solutions for finance, projects and work management, we will incrementally build out a new asset system.

**Transmission and Distribution Assets:** This business process area along with the technology solutions will see the most change in the coming years. Given the large scale replacement of many aging assets along with a large maintenance program to ensure these assets to meet the demands and forecasts of the business, asset management is becoming an even more critical process. It is expected the redesigned processes will take advantage of modern practices and technologies to:

- Simplify the current business,

- Leverage compatible units and integrate across all major processes (procurement, work management, etc.)
- Fact based asset management with formalized asset registry
- Increase integration of the asset registry to help optimize and automate other processes (e.g. as built, financial, etc.) including into GIS

One area of change will include the type of assets, as we are implementing a number telecommunications and intelligent devices across the distribution network and these assets information will also have to be maintained. There likely will be some policy changes related to these assets as their effective life may be considerably shorter and be expensed.

**Corporate Assets:** All other assets of the corporation (IT&T equipment being the most significant) will be incorporated into the asset registry along the implementation of other assets.

*Technology Direction*

- Provides consistent asset record across all of our systems. Currently, assets are handled differently in both the financial and asset management systems resulting in large amounts of manual reconciliation and manual interfaces.
- Deploys Asset Management Process that reviews and conducts analysis on asset classes based on safety, risk, and reliability of supply.
- Supports the analysis of assets using design information, safety records, maintenance records, and risk allowing analysis of information and make better decisions regarding which assets to maintain and where
- Provides automated, predictive analytics (leveraging information from the Smart Grid)
- Automates non-value added, administrative processes
- Improves accuracy of data

The technology required support this work will primarily be implemented in the operations (work management) business process redesign. The output from those

processes will provide the information to maintain the asset registry. The technology will leverage BC Hydro's investment into ERP in order to provide the integration benefits we are looking for. This will require significant effort over a number of years to correctly implement the technology and equally important the data associated with Assets.

### **Manage Operations Processes & Systems**

BC Hydro has a large, complex work force operating the power infrastructure. The two most significant areas, accounting for 75% + of the staff and financials, are Generation and Transmission and Distribution. Both of these areas work on capital projects, or day to day operations work including maintenance. These are two areas of need of improving and simplifying how work is done particularly since more work needs to be performed with the same or fewer staff.

With an aging work force, there is an additional need to automate processes and retain the knowledge of processes so that the work can be done safely and efficiently. In all cases, the process and systems solutions being designed to not only increase time on tools (e.g. productivity) but also remove any hazardous barriers causing fatigue, frustration or stress related to the tools they use.

Two focus areas are being redesigned and require technology to support them:

**Program and Project Management** - The Generation group has taken the lead and is currently designing processes and systems that will simplify the deliver capital projects process thereby lowering the cost to deliver the projects, increasing safety with prevention built in, and increase predictability of the plan . The solutions will provide an extendable process design for Generation and other parts of the organization that are involved in capital projects, specifically, Transmission and Distribution, Properties and IT&T

**Planning, Scheduling and Work Management** – This will improve the efficiency of work management processes, particularly in the areas of work planning, scheduling, design, and fieldwork administration and improve integration into the Supply Chain. In addition, safety will be built into the process and technology to increase the overall safety of workers within BC Hydro and for the public. Our existing work management processes are disparate and complex. The design group as an example must use 7 systems and several manual processes in order to initiate and plan a customer driven work order. Future work management must be much simpler and implemented consistently across the organization.

*Technology Direction*

The core foundational systems are based on ERP for work and asset management, specialized software for resource scheduling along with project scheduling software from Primavera. With these solutions, data will be stored once and used through business intelligence software or reports. These platforms will be extendable across the enterprise, integrated, and expected to help reduce the overall complexity of the technology currently in use for these processes. Some of the key attributes being deployed include:

- Enabling distinct Program and Project Management capabilities for small (less than \$1million), medium (\$1million to \$10million) and large (over \$10million) projects
- All work will be initiated, planned, scheduled, dispatched, and closed in a consistent way, regardless of the type of work. This will allow for increased administrative efficiency, and allow for an increase in field manager focus on safety and tool time.
- Safety will be integrated into all work, including the administrative and reporting aspects of the safety processes.
- We will move from a reactive work environment to a planned proactive work environment.
- We will capture all data at source, to create a single source of truth and eliminate the reconciliation burden.
- We will simplify our processes, and increase our ability to do trending analysis and reporting
- We will utilize telecom technologies to capture data at source, and provide a safer working environment.

**Manage Goods & Services Processes and Systems**

The process changes made during the Procure to Pay project are driving changes to enable BC Hydro to reduce its purchasing costs by using improving information in order to reduce buying costs over time. In the future, buyers will have access to better information and be better able to negotiate improved prices. Processes for making purchases within BC Hydro will be simpler and more consistent across the organization. The purchase and safe delivery of new equipment is a critical component to the Project Delivery Process. In the future, these purchases will be more integrated into the project delivery process and systems allowing project managers and buyers to have the information they need to make good decisions throughout the process.

In addition, work is underway to improve the processes within the Materials Management, where the rest of the supply chain process is led. The intent is to improve processes in order to simplify work for the field, improve logistics and reduce inventory.

Longer term, the whole supply chain process will be reengineered to support the redesign of the work management processes, integrating all of these processes together for the greatest overall benefit.

#### *Technology Platform*

While much planning is still required, the intent is to leverage BC Hydro's investment in ERP to better optimize the "Manage Goods & Services Processes and Systems. The redesign of Work and Asset Management processes will better enable the planning for an optimized Materials Management environment and additional technologies beyond the 5-year plan to optimize warehouse management, transportation and logistics, etc.

#### **Manage People Processes & Systems**

A large proportion of the BC Hydro workforce will be replaced in the next few years due to the high numbers of employees reaching retirement. In addition, BC Hydro is replacing large numbers of aging assets and increasing capacity at existing plants. This means that the recruitment of new workers is key to the success of BC Hydro, and workforce planning should become a common, consistent process within BC Hydro. The new processes will allow these workers to be integrated quickly into the workforce and become a productive team member as soon as possible and this will require new tools to increase the speed of recruitment, and to manage workforce planning effectively enterprise-wide.

Additionally, the payroll process and system is highly complex given BC Hydro's work rules and unionized environment. Given the system has not been upgraded recently, it is a high risk area requiring further investigation of options to reduce the overall risk. Longer term, the HR processes of training, benefits administration, and employee qualifications and life-cycle administration will also need to be reviewed for potential process and system improvements.

Moving "People Processes" onto the common enterprise-wide platform is of critical importance so that BC Hydro addresses the most important priorities for HR, including payroll and workforce planning. Moving "people" information into ERP will allow BC Hydro to take advantage of the integration that ERP provides, especially in the areas of work and resource management, ultimately allowing for electronic timesheets, and ensuring job safety by ensuring that assigned workers have the right qualifications and training.

#### **Manage Finance Processes and Systems**

The Financials Plan requires that BC Hydro move towards the IFRS standards and to simplify processes in order to meet the operational needs of the business. Financial standards and accounting policies will be changed to reflect the IFRS requirements.

Additionally, the financial processes will be simpler, more consistent across the business units, and more integrated with the operational systems. Costs will be clearer, and the use of one system will eliminate the need for “spreadsheet farms” that reconcile data between multiple systems. The single source of truth data will rationalize where data is stored and how it is used.

BC Hydro completed a process redesign project in F10. The processes and systems have been revamped to reflect IFRS accounting practices, to simplify the accounting processes, to support multiple reporting requirements (i.e. IFRS and BCUC), and to remove unnecessary policy and processes; thus reducing the amount of reporting (much is currently ad hoc and not specific to accountabilities. In subsequent years, we will focus on the improvement of the budgeting and treasury processes and systems. Sustainment and enhancement of these processes are underway.

SAP is the core platform being implemented for Finance and is the beginning of a core IT environment simplification effort as well as the foundation for other areas to leverage the “out of the box” integration that SAP brings.

### **Manage Corporate Processes and Systems**

A more integrated and “One BC Hydro” approach is the vision for all of the corporate groups. The goal of all of these groups is to support the business strategies in an integrated way and enable the core parts of the business.

#### *Technology Direction*

In the future, systems will support a more integrated approach to work overall, including a simpler sign on process to allow users to access all of their applications with one sign on password. In addition, there will be a move towards the simplification of the multiple systems used by employees. A portal that allows users to have the ‘feel’ of one system, when they are actually using many, will make life simpler for users and again, move towards the “One Hydro” culture. The implementation of collaboration software allowing employees to communicate more effectively face to face without travel will also support that “One Hydro” goal. Another major change that is coming is the implementation of “One BC Hydro” records classification; this will provide employees with a common framework and language that will allow us to file documents and manage our enterprise information in a more consistent way. The key efforts over the next four years include:

**Records Information Management System** – RIM systems will manage records management practices, standards and tools in support of all business processes within BC Hydro. It will result in better compliance with our legislative

and regulatory requirements for records retention, and operational efficiencies related to information search and retrieval, and electronic and physical storage.

**Collaboration Systems** – These systems will implement the foundation for the use of collaboration software, including SharePoint, Instant Messaging, and Videoconferencing. This project does not directly support any of the operational projects, but supports the overall culture of “One Hydro. This effort has already seen successful implementation of basic capabilities.

### **Manage Safety, Health and Environment Processes and Systems**

BC Hydro's goal is to achieve and maintain excellence in safety, health and environmental performance across our operations through the elimination, mitigation and control of hazards that present a threat to people, property and the environment. Safety, Health and the Environment are part of all that we do at BC Hydro, and as such, we need to develop our business processes and systems enterprise –wide with that in mind. As an example, the work management process should ensure that work is being assigned to staff with appropriate training and qualifications, that work is organized so that no work is done until safety steps have been taken, and that safety is incorporated into the design of all the work we do. Environmental hazards need to be managed swiftly and accurately and the SHE team needs access to all of the information on how we handle Safety, Health and the Environment so they can complete their analysis and start the cycle of continuous improvement.

#### *Technology Direction*

The primary purpose of technology is to help SH&E and BC Hydro achieve its goals in two specific ways:

- Embedding appropriate SH&E process into technology - embedding prevention and important SH&E controls from the most relevant processes into the technology so that prevention will be woven into the fabric of BC Hydro and BC Hydro can achieve the long-term culture change it is expecting.
- Enterprise Reporting and Management System – the implementation of this system will help BC Hydro more efficiently and effectively conduct analysis and understand the drivers of SH&E issues, while at the same time providing the management reporting required. It is expected this will help BC Hydro improve its overall Safety culture, and actively move towards the prevention culture and overall ‘no harm’ outcomes that BC Hydro is expecting, while reducing the manual intensity of processes and administrative burden associated with them. The immediate priority for this system is the Greenhouse Gas Emissions Reporting as there are regulatory requirements for this information.

### **Technology Foundation Improvements**

The overall goals for “Technology Foundation” are to deploy an overall lower **Total Cost of Ownership (TCO)** environment that is scalable, extendable and aligned with BC Hydro’s needs. In order to accomplish the Foundation Improvement are deploying a technology environments that is:

- Integrated
- Simplified
- Standardized

**Enterprise Integration (ESB)** – This will allow applications to ‘speak’ to each other in a much simpler and more cost effective manner. With the use of an ESB, individual integration points or interfaces do not need to be rebuilt for each upgrade, saving time and money. This is a technology foundation required for all of the business systems and will further enable BC Hydro to leverage SAP.

**Virtualization of Servers and Storage** – Virtualization is a major trend within Utilities and in other industries. It allows BC Hydro to take advantage of the investments we have made in Servers and Storage to create higher levels of utilization, lower TCO as less investment is required to accommodate growth and a significantly improved ability (e.g. lower cycle times) to deploy additional storage or servers.

**Telecom Modernization**– This will provide an end to end integrated network across all of the business. It will integrate wireless, fiber, and radio under an IP (Internet Protocol) based environment. These will be seamless and available through mobility, remote access, generation plants, field offices, and our business offices.

**User Interface Architecture** - User Interface Design & Usability play a key role in ensuring the success of enterprise processes and applications. End users are often required to interact with multiple systems as part of their work routines and administrative duties as employees. When these enterprise systems lack a cohesive user interface design, there is a high cost to the company. Over the course of the next four years, the intention is to define the UI standards that each project will be expected to deploy.

**PC Simplification, Segmentation and Modernization** – While the PC environment has few standards and has allowed users to define its individual requirements leading to a high coast environment, this effort will put in place role-based segments. The role based segments will drive the type of device and the image on the device thereby

significantly lowering the TCO as well as standardizing the systems on the PC and taking advantage of modern office automation.

**Integration of Digital and Physical Security** –In today's world, given world events and the need to raise the level of security to NERC standards, it is critical that security be viewed end to end from a people, process and technology perspective. That means designing technology into the processes people use and tools used by the people. Whether it is a camera mounted on a spillway wall sending critical data to security controls centers to intelligent access and security cards, the technology is the foundation to which the integrated security is delivered. The key components include data bases for prevention, detection and investigation and management reporting, information security access systems, telecommunications (wireless, microwave and fixed line) and end devices (cameras, sensors, perimeter management, handhelds, and video). The security envelope is tempered by the degree of risk associated to the area. Each facility, or the points between the facilities, is assessed as to the risk. The complete campus will have a security plan. Those plans and the associated investment are based on the risk assessment.

**Tested and Reliable Disaster Recovery** - We currently have built and are operating a disaster recovery and back up facility in Calgary. The build is complete with equipment installed. We can provide disaster and back up services and have now migrated applications and databases.

**The Project Plan**

In F10 we developed a set of key projects designed to meet the business process and objectives needed for both the enterprise and the individual business units. As well, the work began to improve the aging IT&T assets and build the foundation of stable, reliable infrastructure needed to support where the business is going.

The IT&T governance group has been overseeing these key projects along with a constant evaluation of business priorities and the changing business environment. As a result, the plan reflects the status of the current projects underway along with the priorities and changes. F11 will continue to see the build out of the foundation and key operational projects but in some cases they have been scaled back, extended in time, or stopped.

In defining the projects to be undertaken in IT&T this year and the coming 3 years, key principles were established:

- Each project stands on its own business case
- Highest priorities are to deliver foundation needs of the business and those delivering the highest business value
- Risk has been assessed and is manageable
- The work must be doable given the constraints of resource availability, funding and technology
- Key resources are assigned full time to the projects
- Interdependencies to other work in BC Hydro and projects have been considered.
- Work is performed in an incremental manner, i.e. systems and functions built out to meet a prioritized list of needs
- Projects delivered cost effectively and with total cost of ownership in mind

A brief description of each major project is described below.

BUSINESS AREA	PROGRAM	PROJECT	DESCRIPTION
Serve Customer	Self Service	Kairos	Increase web capability to allow customers self service options
	Customer Strategy	CRM	Extend the customer system to include relationship management capabilities
Manage Energy	Distribution Management System (DMS)	Wave 1: initial functionality Wave2: advanced functionality	Implement the core distribution management capability into the distribution network

BUSINESS AREA	PROGRAM	PROJECT	DESCRIPTION
	Customer Side	Demand Forecasting - EPIC	Implement the initial system for calculating, analyzing and reporting demand forecasts
	Transmission	MODS	Implement Transmission Customer System to support energy management
Manage Assets	Enterprise Asset Management	Strategy	Definition for future direction of how asset information is managed
	GIS	Short Term Priorities	Solutions to support SMI and DMS requirements
Manage Work	Projects and Portfolio Management (PPM)	Wave 1: implement new capital project solution in Generation Wave 2: Implement full functionality in Generation, Transmission and Distribution Wave 3: Implement in Properties and ITT	Design and build a capital project business process and systems solution to accommodate small, medium and large projects. Provide consistent process and management reporting for all BCH capital projects
	Plan, Schedule and Work Management (PSW)	Wave 1: implementation of initial work design for Transmission and Distribution Wave 2 : advanced solutions for Transmission and Distribution, and Generation	Design and build plan, schedule and work (people, materials and equipment) for operations and maintenance.
Manage Goods & Services	Supply Chain	Wave 1: continuous improvement work and implement functionality to support work program Wave 2: migrate full supply chain to new software	Design and build process and systems solutions to support the business process needs for the work program.
Manage safety, health and environment	SHE enterprise	SHE enterprise reporting	Provide consistent corporate wide reporting for GHG reporting and analytics.
Manage Financials	FSR	Wave 2 (Wave 1 was implemented in F10)	Design and implement additional capabilities in the new financial systems including budgeting, analytics and treasury
Manage People	HR	Wave 1	Design and build high priority solutions for workforce planning, HR and payroll including e-recruit
		Wave 2	Design and build solutions for training, and performance management

BUSINESS AREA	PROGRAM	PROJECT	DESCRIPTION
Manage safety, health and environment	SHE enterprise	SHE enterprise reporting	Provide consistent corporate wide reporting for GHG reporting and analytics.
Manage Corporate Support	RIM (Enterprise wide Records Information Management)	Wave 1: Legal, Regulatory, and Procurement (Site C and SMI optional) Wave 2: GENERATION Wave 3: HR, Properties, SHE Wave 4: Transmission and Distribution Wave 5: Procurement, Finance, CC&C Wave 6: Corporate affairs, Executive	Design and build a corporate records management system for both physical and electronic information. Includes corporate classification and retention. Note: OCIO and Board are being implemented in F10.

In support of the business, there are a number of technology-based projects. These solutions, once implemented will allow the business to carry out their business with more reliability, with more safety and with better performance and access. SMI has also been incorporated into these solutions where appropriate, particularly in the areas of telecommunications, data management, security, and application interfaces.

BUSINESS AREA	PROGRAM	PROJECT	DESCRIPTION
Technology	ESB (enterprise service bus)	Wave 1: FSR, PPM, DMS Wave 2: important applications	Design and build a common interface environment for applications to integrate efficiently
	Virtualization	Servers Storage	Build software that reduces the physical footprint for servers and storage and allows for dynamic allocation of equipment to reduce operating costs and provide a greener footprint
	Telecommunications	Local & Wide Area Networks (LAN/WAN)	Upgrades to the fiber network to provide better connectivity to BCH facilities and intelligent equipment
		Network renewal	Upgrades to the microwave network that provides communications across the transmission network
		Voice Systems	Upgrades to phone systems and equipment including voice over IP

BUSINESS AREA	PROGRAM	PROJECT	DESCRIPTION
		Radio Systems	Design and build emergency management system for the lower mainland, Transmission and Distribution communications and generation site communications
	Security	Wave 1: information systems Wave 2: integration of physical devices and security control	Improvements to the IT&T systems to better alignment with NERC CIP (critical infrastructure facilities) standards including integration with physical services. Integrate physical devices (e.g. cameras, control systems) with IT systems
	Digital Solutions	BCHydro.com	Improve foundation of BCHydro.com in order to support requirements of Customer Transformational projects
		Integrated Portals	Implement integrated portals for employees, suppliers / external users, and customers.
	Operations	Wave 1: Improvements to service delivery Wave 2: Planning for end of ABS contract Wave 3; implementation of new service model	Implement improvements to service from BIS, CIO, and ABS over the next three years. Analysis of options for end of current contract. Implementation of new service model.

The project plan summary is depicted below.

Business Area	Program	Phase	Project	F011				F012				F013				F014				F015			
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Service customer	SMI CRM	New	SMI CRM	[Gantt bars]																			
			Karma	[Gantt bars]																			
Manage Energy	DMB	New	Wave 1: Initial functionality	[Gantt bars]																			
			Wave 2: advanced functionality	[Gantt bars]																			
EPIC	MOOS	New	Demand Forecasting	[Gantt bars]																			
			Transmission Customer System	[Gantt bars]																			
Manage Assets	Ent. Wide Assets	New	Strategy	[Gantt bars]																			
			GIS Platform	[Gantt bars]																			
Manage Work	PPM	Add BCTC	Phase 1: Base Functionality	[Gantt bars]																			
			Phase 2: Advanced Functionality	[Gantt bars]																			
PSW		Add BCTC	Wave 1: T and D Implementation	[Gantt bars]																			
			Wave 2: G Implementation	[Gantt bars]																			
Manage Goods & Services	Supply Chain	Timing?	Wave 1: Continuous Improvement	[Gantt bars]																			
			Wave 2: Full Supply Chain	[Gantt bars]																			
Manage Financials	FSR	New	Wave 1: FSR Stabilization	[Gantt bars]																			
			Wave 2: Budgeting and Treasury	[Gantt bars]																			
Manage People	HR		Wave 1: Core HR / Payroll / e-recruit	[Gantt bars]																			
			Wave 2: Performance Management / Training	[Gantt bars]																			
Manage Corporate	IRM		Wave 1: Legal/FOI/SMI	[Gantt bars]																			
			Wave 2: Generation	[Gantt bars]																			
Technology Foundation	Telecom Security	Consolidated	LAN/WAN network renewal, voice, radio	[Gantt bars]																			
			Wave 1: Information Systems	[Gantt bars]																			
Digital Solutions		Consolidated	Wave 2: Integration w/Physical	[Gantt bars]																			
			BC/Hydro.com	[Gantt bars]																			
Desktop Upgrade Next Steps / LTS5		New	Integrated Portal	[Gantt bars]																			
			Office 2010 and Windows 7	[Gantt bars]																			
Legend			Wave 1: Planning	[Gantt bars]																			
			Wave 2: Service Improvements	[Gantt bars]																			
			Wave 3: Transition	[Gantt bars]																			
				[Gantt bars]																			
Legend			Strategy / Planning Process and Technology Project (Design and Implementation) Stabilization (and ongoing training) Stabilization (and ongoing training) Stabilization (and ongoing training)																				
Change to Plan			Impact to key business needs Small Change with Small/Moderate numbers Impacted or Moderate/Large change with small numbers Impacted Small Change with Moderate/Large Numbers impacted or Moderate Change with Moderate Numbers Impacted Moderate/Large Change with Moderate or Large Numbers Impacted																				

### The People Plan

In the first year of the plan, a number of key organizational changes were made to better service the business needs or the company and to improve the service delivery of IT&T. They include:

1. Establishment of an executive governance group to oversee the IT&T investment and that IT&T was delivering to the business objectives and priorities.
2. Establishment of roles for the different organizations involved in the plan, design, build and operate functions for IT&T.
3. Establishment of business process function that would be accountable for the development of company-wide business process solutions (One Hydro).
4. Establishment of a single manager accountable for the telecommunications investment. Currently dispersed over 4 separate areas of the company.
5. Establishment of a single technology architecture group to oversee the technology directions for the company.
6. Establishment of a single PMO and business management function to oversee the IT&T projects, resources and financial expenditures across the company.

**GOVERNANCE:** The IT&T governance group, comprised of senior business leaders, meets monthly and has decision-making authority on IT, Telecom and Security investment and priorities. The governance oversight is working well but needs to some minor refinement. ET and the AMRC information requirements are being better defined to ensure the group will meet their needs.

**SMI:** The SMI technology team and the CIO technology team are well integrated. To ensure consistency there is a dotted line reporting to the CIO's office and technical sign off should be expected.

**CIO:** Due to the BCTC Integration and related reorganization, the CIO organization has become more centralized and now includes the BIS teams, enterprise wide security and telecom. This re-alignment will allow for a more consistent approach to our clients and more consistent delivery of the IT Plan. Key activities for this group include: business continuity work, improving operational service delivery and a significant cost reduction program.

**ABS:** Recently, Accenture has changed their top management and introduced two senior Accenture managers in to the ABS organization. There is currently a review underway but it is anticipated that there will be changes to the services being delivered to be more aligned with BC Hydro's business directions and that there is more joint management activities underway.

**Role of Planning and Architecture –** Architecture is accountable for the long term plan from both a process and technology perspective. All work will be initiated in cooperation with the architecture team to ensure consistency and to ensure a One Hydro perspective. Architects will be accountable for both the long term reference architecture and related design; however architects will not be responsible to execute the solution design. They will ensure the solution design aligns with the architecture by maintaining dotted line relationships with the solution architects on the project and in operations, and by conducting Quality Assurance ("QA").

**Role of the Security Group–** Security develops the integrated security plan for both physical and IT&T security. Security defines the projects required, working closely and with input from the business groups, to implement the Security Plan. Security projects and operations will be executed by the relevant delivery team (applications, infrastructure or telecom) on behalf of the Security Group. Business operations for security will be coordinated enterprise wide by the Security team.

**Role of the Digital Solutions Team –** Digital Solutions ("DS") team works with the business enterprise-wide as well as customers and partners to provide direction and

deliver solutions relevant to portals, client computing and unstructured information, with the goal of improving user experience, productivity and knowledge management. Similar to other service areas, DS will work jointly with the Business Group Service Delivery and Architecture (Process and Technical) teams in the engagement phase to define new projects. The DS team will also drive or support project execution and operations.

Role of the Business Groups – The Business Group Service Delivery (“BGSD”) team will act as relationship managers for their Business Group. They will be the point of contact for all business issues within that Business Group, and they will work with the appropriate teams to ensure the necessary work is completed. They will be aware of all projects affecting their business area and will be heavily involved in the change management of their users. They will not lead the projects, but they will maintain enough involvement throughout to keep their business groups aware of progress, and to ensure their business groups needs will be met. The BGSD teams are responsible for delivery of business group specific applications projects. The BGSD teams will be heavily focused on user support for both business process and technology. User support responsibilities include business analysis, business case development and support, technology consulting, helpdesk and end-user support services. Today, the BGSD teams may provide services that are somewhat different than described above. The BGSD team is working on a plan to transition to this role, while maintaining their current high level of customer service focus.

Role of the Delivery Groups (Applications, Infrastructure, and Telecom) -The Delivery groups are responsible to execute the projects and ongoing operations for their delivery area. They will be responsible to document project scope, plan and costs – (based on the architecture conceptual design), then to deliver to that plan, and then sustain what was implemented long term. The end state intent is to consolidate applications, infrastructure and telecom in order to reduce costs and to improve service. Each group will work with their stakeholders to make this happen over time.

### **The Financial Plan**

The IT&T financial plan for investment in information technology and telecommunications is aligned with the business needs for both the projects and operations. In addressing the investment needed to deliver and maintain reliable systems for the business, we also considered the current economic conditions that exist as well as benchmarks from other leading utility companies.

With respect to the benchmarks, key aspects were considered: IT investment versus revenue and investment in run grow and transform. While we are well aligned with total IT investment for large, integrated utilities (i.e. 3.5% of revenue), our percentage

investment in run, grow and transform are somewhat different due to our business needs.

In our first year of the plan, the OCIO's office consolidated the majority of the IT&T investment. This was the first time the company had a complete view of the spend, both capital and operating. With the full picture of investment, under the direction of the IT&T governance group, prioritized capital projects were funded and focussed cost reduction program were implemented in operating budgets.

## IT&T OPERATIONS

IT&T operating costs include the labour, hardware and software, telecommunications, outsourcing and expenses related to operating the systems at BC Hydro. Most of the costs are managed from the CIO's office while the remaining cost is managed within the business units. F10 Operations costs include:

ABS OMA costs:	\$35million
OCIO OMA costs:	\$23million
Business unit IT OM costs:	\$11million
Capital & IOMA Projects (OCIO & BG):	\$103million
Total:	\$172million

For F11, we are continuing to drive our base operating costs down in certain areas to absorb growth in other areas. Specifically, a key area for BC Hydro is in reductions in operating costs from ABS operations both from a volume perspective and a unit cost perspective. Along with that initiative, we are also expecting savings from negotiations in hardware, software and telecommunications. IT&T staffing will be capped or reduced as appropriate.

## CAPITAL PROJECTS

The capital plan is based on the projects that were described in the previous section. In F10 we are focussing on transformational work and thus have reduced approximately \$14 million in other capital work previously done at VRC (variable rate card) work through our ABSBC agreement.

The capital plan includes three types of projects:

**Transformation Projects.** They are comprised primarily of key business projects that are intended to deliver high business value to BC Hydro customers or operations. They typically are One Hydro in nature and deliver the value across the organization. These

projects have significant transformation of the business and require a higher investment. They also provide significant business value and are driven by a clearly defined business case.

**Grow Projects.** These projects are broken down into two areas: business and technology. For the business projects, each of the business units identified work to be done to improve the day to day business operations with smaller but important projects that included business process redesign. For technology, it includes incremental improvements to existing systems.

**Run Projects.** The capital investment required to keep current IT&T assets operating effectively and with minimal risk to the business.

Originally, the five year IT&T plan (created last year) reflected an investment plan matched to our service and business plans. This showed an increased investment in our aged assets along with process and system improvements. The investment plan included:

F10	\$90m
F11	\$75m
F12	\$84m
F13	\$82m
F14	\$81m

The IT&T governance group assessed the plan, changing business needs and economic conditions. First, we analyzed our ability to perform the work with all the competing priorities. Second, we looked at the changing business plans around aged assets and foundational work. Third, we incorporated changes to budgets and plans with respect to the economic conditions. As a result, we have modified our investment plans.

For F11, the capital plan was reduced from \$90m to \$75m. It is broken down as follows:

Transformational Project Investment:	\$31m
Grow Project Investment:	\$37m
Run Project Investment:	\$ 7m
<b>Total</b>	<b>\$75m</b>

The key changes are primarily due to a reduction (stop some work or extend work) in the transformational work and the run work. In transformation, we maintain the key work that provides the highest business value. The run work reflects a reduced amount of smaller changes to existing environments with the least impact on the business.

**The Risk Mitigation Plan**

While the similar overall IT&T plans have been delivered by other organizations and Year-1 had many accomplishments, achieving the goals for the next four years has many risks that need to be actively managed.

Risk Area	Level of Risk	Brief Description	Risk Management
<b>Scope &amp; Alignment</b>	High	Ability of BC Hydro to clearly articulate the objectives, key processes and focus on the top priorities for IT&T to enable	Quarterly reviews of the IT&T plan and increased integration of BIS Managers into the Business Units
<b>Technology</b>	Low	The technologies ability to be successful implemented within the BC Hydro environment	The IT&T plan is based upon proven technologies with several successful implementations
<b>Organization and Labour</b>	Very High	Ability for BC Hydro to find the right personnel to deliver the plan	Secure commitment for personnel based upon today's economic environment and leverage multiple partners longer term
<b>Schedule</b>	Moderate	Ability for BC Hydro to deliver the IT&T plan per the timeline	Schedule is based upon case based estimates with varying of contingency built in, however, will be actively managed at appropriate stage gates
<b>Financial</b>	Moderate	Ability for BC Hydro to deliver the plan within the budget outlined	Same as schedule
<b>3<sup>rd</sup> Party</b>	Moderate	Ability for 3 <sup>rd</sup> parties (specifically Accenture with a potential Labour issue) to support the IT&T plan	Active dialog (at least monthly) with key 3 <sup>rd</sup> parties and continued scorecard evaluation annually
<b>Adoption &amp; Value Realization</b>	Very High	Ability of BC Hydro to gain the value from the IT&T plan and successfully manage the organization change	Leverage the overall Change Management team within BCH and seek help from 3 <sup>rd</sup> parties; additionally, ensure Change Management and Business Value Realization are built into all project plans

**TAB 2**  
**BC Utilities Commission Act, Section 106**

**103** (1) [Repealed 2012-27-38.]

(2) Neither the commission nor an officer, employee or agent of the commission is liable for costs in respect of an application or appeal referred to in section 101.

### **Case stated by commission**

**104** (1) The commission may, on its own motion or on the application of a party who gives the security the commission directs, and must, on the request of the Attorney General, state a case in writing for the opinion of the Court of Appeal on a question that, in the opinion of the commission or of the Attorney General, is a question of law.

(2) The Court of Appeal must hear and determine all questions of law arising on the stated case and must remit the matter to the commission with the court's opinion.

(3) [Repealed 2012-27-39.]

### **Jurisdiction of commission exclusive**

**105** (1) The commission has exclusive jurisdiction in all cases and for all matters in which jurisdiction is conferred on it by this or any other Act.

(2) Unless otherwise provided in this Act, an order, decision or proceeding of the commission must not be questioned, reviewed or restrained by or on an application for judicial review or other process or proceeding in any court.

## **Part 8 – Offences and Penalties**

### **Offences**

**106** (1) The following persons commit an offence:

(a) a person who fails or refuses to obey an order of the commission made under this Act;

(b) a person who does, causes or permits to be done an act, matter or thing contrary to this Act or omits to do an act, matter or thing required to be done by this Act;

(c) a public utility

(i) that fails or refuses to prepare and provide to the commission in the time, manner and form, and with the particulars and verification required under this Act, an information return, the answer to a question submitted by

the commission or information required by the commission under this Act,

(ii) that willfully or negligently makes a return or provides information to the commission that is false in any particular,

(iii) that gives, or an officer of which gives, to an officer, agent, manager or employee of the utility a direction, instruction or request to do or refrain from doing an act referred to in paragraph (d) (i) to (vii) and in respect of which the officer, agent, manager or employee is convicted under paragraph (d) (i) to (vii), or

(iv) an officer, agent, manager or employee of which is convicted of an offence under paragraph (d) (viii);

(d) an officer, agent, manager or employee of a public utility

(i) who fails or refuses to complete and provide to the commission a report or form of return required under this Act,

(ii) who fails or refuses to answer a question contained in a report or form of return required under this Act,

(iii) who willfully gives a false answer to a question contained in a report or form of return required under this Act,

(iv) who evades a question or gives an evasive answer to a question contained in a report or form of return required under this Act, if the person has the means to ascertain the facts,

(v) who, after proper demand under this Act, fails or refuses to exhibit to the commission or a person authorized by it an account, record or memorandum of the public utility that is in the person's possession or under the person's control,

(vi) who fails to properly use and keep the system of accounting of the public utility specified by the commission under this Act,

(vii) who refuses to do any act or thing in that system of accounting when directed by the commission or its representative,

(viii) on whom the commission serves notice directing the person to provide to the commission information or a return that the utility may be required to provide under this Act and who willfully refuses or fails to provide the information

**Tab 3**

**Appendix I + J - Fiscal 2009/2010 Revenue Requirement Application –  
BC Hydro Exhibit B-1 (available on the BCUC website)**

Appendix I  
F2007 - F2010 Capital Expenditures, Information Technology  
\$ million

Sustaining Capital Expenditures									
Project / Program Name	Estimated In-Service Date	Development Stage	Spending to March 31, 2006	F2007 Actuals	F2008 Forecast	F2009 Plan	F2010 Plan	Total Cost	Section Reference
Distribution Management System (DMS)	March 2011	Definition	-	-	-	3.8	3.1	9.1	Appendix J
Enterprise Data Warehouse (EDW)	May 2009	Implementation	1.4	2.1	1.9	1.3	0.7	8.8	Appendix J
Common Desktop Standard 4	Various	Identification	-	-	-	1.4	3.1	7.7	Appendix J
Properties Integrated Management System (PIMS)	F2009	Implementation	-	1.6	3.6	1.5	-	7.2	Appendix J
Enterprise Financials Upgrade	April 2009	Identification	-	-	0.8	4.3	1.1	7.2	Appendix J
Disaster Recovery Program	Annual Recurring	Implementation	-	4.6	1.9	-	-	6.5	Appendix J
Radio Technology Upgrade	Various	Definition	-	-	-	-	2.7	5.6	Appendix J
Work Management Project	F2011	Definition	-	-	-	0.2	0.7	5.2	Appendix J
EARG Capital Improvement Process	F2011	Definition	-	-	2.1	2.0	0.5	5.1	Appendix J
Procure to Pay Initiative (IT Investment)	F2009	Definition	-	-	-	4.8	-	4.8	Appendix J
Energy Portfolio Mgmt Applications Review and Update	March 2009	Implementation	-	-	-	1.5	1.7	4.5	Appendix J
SAP CCS Upgrade Project	F2008	Completed	-	0.1	4.4	-	-	4.5	Appendix J
Storage	July 2008 / March 2009	Implementation	-	-	1.6	0.8	0.8	4.3	Appendix J
Call Centre Refresh Project	F2008	Completed	-	3.6	0.5	-	-	4.1	Appendix J
System Management Tools	March 2009	Implementation	-	1.3	0.2	0.8	0.7	3.7	Appendix J
Corporate Program - Business Function Support Applications	March 2009	Identification	-	-	-	-	1.7	3.2	Appendix J
Security - Infrastructure	March 2009	Definition	-	-	0.4	1.4	0.7	3.0	Appendix J
Filenet P8 licenses	F2008	Implementation	-	2.3	0.7	-	-	3.0	Appendix J
External Digital Communication	March 2009	Definition	-	-	-	1.1	0.6	2.2	Appendix J
Desktop Computers	March 2009	Definition	-	-	-	0.5	0.9	2.2	Appendix J
OCIO IT Security - software tools	March 2009	Implementation	-	-	-	1.1	0.7	2.0	Appendix J
Safety Health and Environment Information Mgmt System	May 2009	Identification	-	-	-	0.6	0.7	2.0	Appendix J
Disaster Recovery Program - Minor Enhancements	Various	Identification	-	-	-	0.2	0.2	0.6	Appendix J
Network Sustainment Program	Annual Recurring	Definition	-	1.7	0.7	1.5	1.6	N/A	Appendix J
PC Refresh Program (Recurring Annual Projects)	Various	Definition	-	-	3.0	2.4	2.3	N/A	Appendix J
Server Renewal (Recurring Annual Projects)	Various	Definition	-	2.5	3.4	2.9	2.4	N/A	Appendix J
Other IT Capital Expenditure < \$2 million	Various	Definition	-	20.6	12.7	12.7	13.6	N/A	Appendix J
<b>Total Sustaining IT Capital Expenditures</b>			<b>1.4</b>	<b>40.4</b>	<b>37.9</b>	<b>46.8</b>	<b>40.5</b>		

Growth Capital Expenditures									
Project / Program Name	Estimated In-Service Date	Development Stage	Spending to March 31, 2006	F2007 Actuals	F2008 Forecast	F2009 Plan	F2010 Plan	Total Cost	Section Reference
Net Sustaining IT Capital Expenditures			1.4	40.4	37.9	46.8	40.5		
Net Growth IT Capital Expenditures			-	-	-	-	-		
<b>Total Net IT Capital Expenditures</b>			<b>1.4</b>	<b>40.4</b>	<b>37.9</b>	<b>46.8</b>	<b>40.5</b>		

Notes:

- 1) Individual projects with a gross aggregate anticipated expenditure in excess of \$2 million are explicitly identified above.
- 2) Minor variances between totals shown in Chapter 5 of the capital plan and this table are attributed to rounding.

## Information Technology

<b>Project Name: EARG Capital Improvement Process</b>	
<b>Forecast Capital Cost:</b> \$5.1 million	<b>In-Service Date:</b> F2011
<b>Development Phase:</b> Definition	<b>Filing Reference:</b> New
<p><b>Description:</b></p> <p>The EARG Work Management Project is intended to streamline the processes that support the delivery of capital projects across business units.</p> <p>The objectives of the project are:</p> <ul style="list-style-type: none"> <li>○ To increase the transparency and visibility of individual capital projects and the overall capital plan by implementing consistent, standardized, timely and easily accessible project reporting.</li> <li>○ To implement a consistent process within EARG for the management of capital projects that utilizes existing applications and manages data in a consistent manner.</li> <li>○ To align the process for managing capital projects with the existing asset management life-cycle processes.</li> </ul> <p>Through this work, a number of applications and tools used in the EARG business group will be consolidated and replaced. The current applications and tools under review include project management, time reporting, scheduling, forecasting, and report creation.</p>	
<p><b>Key Drivers:</b></p> <p>To meet committed asset reliability requirements, both the total cost and number of projects for the EARG capital plan are growing significantly between F2007 – F2010. In order to effectively manage the significant increase in capital project work, EARG must streamline and simplify its processes and reporting for managing capital projects.</p>	
<p><b>Issues Being Addressed:</b></p> <p>The current processes and applications used to support the management of capital projects are not standardized and more complex in some cases than is required. This is resulting in challenges to produce effective and useable reporting and controls for some EARG projects. In addition, a significant amount of time and effort is spent on manually extracting and reconciling information from a number of separate stand-alone systems.</p>	
<p><b>Discussion of Alternatives:</b></p> <p>Phase 2 of the project, scheduled for F2009 will focus on improvements to existing BC Hydro work management tools such as PassPort, to further assist in the integration of capital and maintenance work planning and execution at generating facilities. Scheduling of additional system improvements such as replacement of the existing project management tool, and enhancements to or replacement of reporting tools is dependent on the timing of enterprise system upgrades.</p>	
<b>Additional Information:</b>	

<b>Project Name: Work Management Project</b>	
<b>Forecast Capital Cost:</b> \$5.2 million	<b>In-Service Date:</b> F2011
<b>Development Phase:</b> Definition	<b>Filing Reference:</b> New
<p><b>Description:</b></p> <p>PassPort is BC Hydro's enterprise business application. PassPort supports BC Hydro's procurement, contracts, supply chain (Inventory), and work management processes. PassPort is used by BC Hydro's Corporate, EARG, and Field Operations business groups as well as by, BCTC and ABSU for purchasing functions.</p> <p>PassPort service pack updates is planned for implementation in F2009 and F2010 and an Architectural Application upgrade to Asset Suite 6.x is scheduled for implementation in F2011.</p>	
<p><b>Key Drivers:</b></p> <ul style="list-style-type: none"> <li>o Maintain vendor support</li> <li>o Enable new functionality (Foundation Architecture and Services allow front end panel tailoring and/or custom portal development to support business group's specific needs)</li> </ul>	
<p><b>Issues Being Addressed:</b></p> <p>The service packs planned for F2009 and F2010 are required to keep the PassPort application current from a vendor support perspective and to correct application bugs/problems.</p> <p>New functionality within the PassPort application will be enabled through an upgrade to PassPort, and will provide BC Hydro with the latest functionality improvements developed by the software vendor. BC Hydro will utilize the newly developed enhancements and/or modules to support business needs and strategic directions. In addition, the upgrade to Passport will bring BC Hydro current with vendor support and maintenance levels.</p>	
<p><b>Discussion of Alternatives:</b></p> <p>Do Nothing - If the upgrade to PassPort is not carried out, BC Hydro runs the risk of becoming unsupported by the vendor and any business group dependencies on PassPort functionality enhancements to support their business operations would be jeopardized. If the Service Packs are not installed, BC Hydro runs the risk of having production problems that may not be able to resolve, or would require costly temporary customizations by BC Hydro's service provider (ABSU).</p>	
<b>Additional Information:</b>	

<b>Project Name: CDS4 – Common Desktop Standard 4</b>	
<b>Forecast Capital Cost:</b> \$7.7 million	<b>In-Service Date:</b> Various In-Service Dates
<b>Development Phase:</b> Identification	<b>Filing Reference:</b> New
<p><b>Description:</b></p> <p>BC Hydro requires an operating system that is compatible with its partners, offers new capabilities to its employees and is supported. The current operating system used across BC Hydro's desktops and laptops is Windows XP. Microsoft has announced that they will fix security issues but will not support operating system code issues associated with Windows XP after April 2009. Security support will end in April 2010. Due to the complexity of rolling out 8000 desktops and compatibility testing of 500 applications, one year for design/build/test/deploy is needed.</p> <p>Given that the XP operating system on desktops and laptops will not be supported after April 2009, and the new capabilities available in Vista would support business needs, BC Hydro is analyzing the deployment of a new desktop operating system. BC Hydro is currently reviewing features associated with the Microsoft Vista operating system and a plan to ensure a smooth implementation of a new operating system for laptops and desktops.</p>	
<p><b>Key Drivers:</b></p> <ul style="list-style-type: none"> <li>○ System reliability</li> <li>○ System compatibility</li> <li>○ Increased system flexibility</li> <li>○ Increased system security</li> </ul>	
<p><b>Issues Being Addressed:</b></p> <ul style="list-style-type: none"> <li>○ Business Risk (Microsoft support for Windows XP is ending)</li> <li>○ Compatibility with other companies / partners using Vista</li> <li>○ Users are demanding new capabilities such as collaboration</li> </ul>	
<p><b>Discussion of Alternatives:</b></p> <p>Non-Microsoft Operating System - A detailed analysis of Lotus Notes was conducted about 3 years ago but was not pursued. It was identified that user training and implementation of an alternative desktop technology would be cost prohibitive and would have a considerable impact to BC Hydro.</p>	
<p><b>Additional Information:</b></p> <p>This program would also provide additional "soft benefits" including web meetings, instant messaging, desktop conferencing, integration of data, voice and email.</p>	

<b>Project Name: Distribution Management System (DMS)</b>	
<b>Forecast Capital Cost:</b> \$9.1 Million	<b>In-Service Date:</b> F2011
<b>Development Phase:</b> Definition	<b>Filing Reference:</b> New
<p><b>Description:</b></p> <p>DMS will provide centralized visibility and control of the distribution assets with enhanced decision support capability to assist in the day to day operations of the distribution system. DMS will contribute to the following value drivers aligned with BC Hydro's Long Term Goals, and will enhance BC Hydro's ability to provide safe, secure and reliable energy supply to its customers in the event of major storms or other events. The following is a summary of the key benefits.</p> <ul style="list-style-type: none"> <li>o Financial: The DMS project is expected to provide significant financial benefit, including deferral of feeder capital expenditures, accelerated roll out of energy savings initiatives, reduced fault location and restoration times, and increased workforce efficiency.</li> <li>o Environmental: Rapid expansion of energy conservation will result in an incremental reduction in electrical intensity of 530 GWhrs between F2010 and F2025.</li> <li>o Reliability / Customer: DMS is expected to reduce SAIDI by 5 minutes resulting in improved customer satisfaction across customer segments experiencing lower reliability.</li> <li>o Employees: Dispatch will be empowered with enhanced decision support capability that will significantly improve the decision making process.</li> <li>o Safety: DMS will provide the ability to monitor and alarm in real-time when and if cable load levels exceed ratings. It will also allow real-time generation and verification of switching orders dispatched to field personnel. DMS will reduce the risk of human error in issuing switching orders and provide a more secure and safe environment for field personnel.</li> <li>o Alignment with 2007 Energy Plan: This project aligns with the BC Government's 2007 Energy Plan, which calls for the use of innovation and technology to support energy savings and improve the performance of distribution assets. DMS will also aid in managing resource shortage issues.</li> </ul>	
<p><b>Key Drivers:</b></p> <ul style="list-style-type: none"> <li>o Energy conservation,</li> <li>o System reliability,</li> <li>o Improved customer satisfaction,</li> <li>o Deferral of capital expenditures.</li> </ul>	
<p><b>Issues Being Addressed:</b> See description.</p>	

**Discussion of Alternatives:**

The alternative options considered are:

- i) Status Quo with Additional Resources to Sustain Manual Workload – Under this option, BC Hydro would continue with the existing Control Centre systems in conjunction with manual work methods and controls. This option does not provide real-time optimization of the distribution system. This option is not financially viable as additional resources would be needed to manually deal with complexity associated with the rollout of the real-time Volt Var Optimizer systems.
- ii) Enhance the existing Electronic Mimic System - The existing Electronic Mimic system could be enhanced to provide some of the capabilities that a DMS would provide (e.g., partial capability for fault location, isolation and restoration). This option would not address the needs for real-time operations such as Optimal Power Flow and Volt Var Optimization. Without these advanced capabilities, the financial benefits associated with deferral of feeder capital expenditures, maximizing of energy savings and efficiency gains from advanced decision capability would not be realized. The financial benefits associated with reductions in fault location and restoration would be only partially realized.

Neither alternative is recommended as there is limited benefit realization and alignment with BC Hydro's goals.

**Additional Information:**

<b>Project Name: Radio Technology Upgrade</b>	
<b>Forecast Capital Cost:</b> \$5.6 million	<b>In-Service Date:</b> F2011
<b>Development Phase:</b> Definition	<b>Filing Reference:</b> New
<p><b>Description:</b></p> <p>BC Hydro owns and maintains an extensive microwave network, consisting of over 150 individual sites, stretching across the province. Microwave technology is used to connect areas of the province where commercial network providers do not provide service. This program will upgrade the existing infrastructure to ensure the ongoing safe and reliable operation of this asset which is used to ensure the safe and reliable delivery of electricity to BC Hydro's customers.</p> <p>This project will replace obsolete analog microwave facilities with contemporary digital equipment at various locations throughout the province. Due to the age of the system and ongoing operational requirements, annual expenditures are required to allow for improvements and replacements in existing infrastructure.</p> <p>The scope of this project encompasses the following key items:</p> <ul style="list-style-type: none"> <li>• New site development due to safety or coverage issues</li> <li>• Replacements due to irreparable failure</li> <li>• Strategic upgrades due to equipment obsolesce</li> </ul> <p>Completion of work is prioritized in order of importance:</p> <ul style="list-style-type: none"> <li>• Safety – required for personnel or system safety</li> <li>• Emergency Replacement – unforeseen outages</li> <li>• Efficiency – improvements that will reduce overall operating costs</li> <li>• System Optimization – improvements to enhance coverage.</li> </ul>	
<p><b>Key Drivers:</b></p> <p>Safety and reliability – The microwave network is used for operation of the electric system across the province. Availability and reliability of the microwave system is paramount to the ongoing safe and reliable operation of the electric system.</p>	
<p><b>Issues Being Addressed:</b></p> <ul style="list-style-type: none"> <li>○ System reliability</li> <li>○ Safety</li> </ul>	
<p><b>Discussion of Alternatives:</b></p> <ul style="list-style-type: none"> <li>i) Do nothing – This option would not address the risks to the safe and reliable operation of the electric system and is not a viable option.</li> <li>ii) Replacement of all microwave technology. This option is not deemed necessary at this time.</li> <li>iii) Upgrade the microwave system to ensure the ongoing safe and reliable operation of the microwave network.</li> </ul>	
<b>Additional Information:</b>	

<b>Project Name: Enterprise Financials Upgrade</b>	
<b>Forecast Capital Cost:</b> \$7.2 million	<b>In-Service Date:</b> April, 2009
<b>Development Phase:</b> Identification	<b>Filing Reference:</b> New
<p><b>Description:</b></p> <p>The PeopleSoft Financials is an enterprise system which consists of accounts payable, asset management, billing, contract, expenses, general ledger, project costing and receivables. It is essential to BC Hydro for transaction processing, allocation, consolidation and financial reporting. This project involves the upgrade of PeopleSoft Financials software from the version currently in use (release 8.0 SP3) to PeopleSoft Enterprise Financial Management Release 9.0. PeopleSoft Financials 8.0 SP3 was released in July 2002. As of June 30, 2007, this version is no longer supported by the product vendor and there is no additional extended support available to BC Hydro. BC Hydro and ABSU will not be able to support future business requirements without additional customization to the current platform. During the upgrade, BC Hydro plans to implement specific business and data processes improvements. Additional benefits associated with the implementation of PeopleSoft Enterprise Financial Management Release 9.0 include increased data integrity (through improved controls), and allows the creation of custom derivations in certain applications, reducing the need for manual interventions in the system.</p>	
<p><b>Key Drivers:</b></p> <p>Risk to reliability of Financial Management System</p>	
<p><b>Issues Being Addressed:</b></p> <p>See description.</p>	
<p><b>Discussion of Alternatives:</b></p> <p>i) Do Nothing - This alternative is considered inappropriate as BC Hydro's financial software will continue to be unsupported. This alternative will also result in an incremental operational costs estimated at \$0.2 million per annum. In addition, future business requirements will not be supported without additional customization.</p> <p>ii) Re-platform to SAP - BC Hydro has investigated migrating financial systems from PeopleSoft to SAP. It is estimated that the cost to re-platform to SAP would be between \$30 million to \$40 million and would require a significant dedication of management and staff resources, thereby delaying other important BC Hydro projects. Migration would likely take between 2 and 3 years. While operational savings of \$0.4 million annually would be available for vendor maintenance with SAP, the cost of licensing would be approximately \$10 million. Overall, this option is not considered appropriate for BC Hydro.</p> <p>iii) Upgrade PeopleSoft Financials with specific business and data processes improvements - Total project costs are estimated at \$7.2 million with a target in-service date of April, 2009. Under this option, BC Hydro's financial software would be supported for a period of at least 5 years, thereby reducing operational risk. Additional functionality is available with PeopleSoft 9.0, which supports BC Hydro's enterprise resource planning business strategy and the development of system interfaces for various BC Hydro projects/initiatives.</p>	
<p><b>Additional Information:</b></p>	

<b>Project Name: Properties Integrated Management System (PIMS)</b>	
<b>Forecast Capital Cost:</b> \$7.2 Million	<b>In-Service Date:</b> September 2008
<b>Development Phase:</b> Implementation	<b>Filing Reference:</b> F07/F08 RRA, Section 5.8.4.2
<p><b>Description:</b></p> <p>BC Hydro relies on eleven separate systems to support strategic governance, management and administration of BC Hydro property and facility interests. These systems are reaching end of useful life and some of them are no longer supported by vendors.</p> <p>Continued use of these systems creates significant safety, reliability, financial and business continuity risks for BC Hydro relating to the management of BC Hydro electric system (generation, transmission and distribution) property interests throughout the province. It is critical that BC Hydro employees have access to accurate and complete property information to support decisions that impact both customers and employees in their day to day work.</p> <p>BC Hydro commenced with the Properties Integrated Management System project in F2007 and is on schedule for full deployment by September 2008. The Properties Integrated Management System (PIMS) is intended to provide the following:</p> <ul style="list-style-type: none"> <li>o Create a single view and touch point of BC Hydro property interests with the provincial land base,</li> <li>o Enable Properties to efficiently manage the property life cycle from planning to disposition,</li> <li>o Support effective management of electric system property interests and BC Hydro facilities, office services and space planning,</li> <li>o Provide document management, and reporting functions,</li> <li>o Interface with other key BC Hydro systems,</li> <li>o Allow remote access for regional staff creating ease of access with less reliance on paper files that are centrally managed,</li> <li>o Interface with GIS for map viewer capability for better coordination with BCTC and BC Hydro business groups relating to electric system property interests and field facilities.</li> </ul> <p>The project has two phases. The first phase of the project to support real estate management is already operational. Business requirements and software configuration for the second phase will be substantially complete in F2009. The second phase will focus on the following elements of BC Hydro's property services: facilities management, office services space planning, land assessment, environmental support and administration and payment of taxes and grants in lieu.</p>	
<p><b>Key Drivers:</b></p> <ul style="list-style-type: none"> <li>o End of life and obsolete technology – addresses inadequate systems which are disparate and inefficient,</li> <li>o Lack of vendor support – addresses business continuity and safety / reliability concerns. There are significant consequences if the current system crashes,</li> <li>o Changing business needs – addresses process issues, customer and employee needs,</li> <li>o People – addresses ability for staff to do work effectively and efficiently (e.g. integrated information, remote access to files, less duplication of effort, reduced time on low value- add tasks, one system providing a view of BC Hydro fee-owned and interests in land),</li> <li>o Provide consistent processes and information to meet environmental and safety needs.</li> </ul>	

**Issues Being Addressed:**

- o Replaces end of life assets,
- o Lack of vendor support,
- o Access to reliable, complete information with a focus on customer satisfaction and service reliability,
- o Business continuity,
- o Support for expanded scope of accountability and changing business needs.

**Discussion of Alternatives:**

Two other options were considered.

- i) Do Nothing - This option is not considered feasible as applications are obsolete and unsupported. Risk of failure has significant consequences to BC Hydro operations, and safety & reliability of people and assets.
- ii) BC Hydro looked at rolling out a project with a more limited scope. This option did not provide for interfaces and integration of data and was not chosen.

**Additional Information:**

This project was identified in the F07/F08 RRA with a forecast cost of \$2.1 million. A number of factors have subsequently resulted in the forecast project cost being revised to \$7.2 million. This increase is driven by the following factors.

Firstly, the results of formal RFI/RFP process resulted in final bids which were \$0.8 million higher than estimates, which were obtained for the previous estimate via informal vendor quotations. The remainder of difference between costs forecast for the F07/F08 RRA is associated with additional third party development and configuration required to address the following:

- o Estimate revised as a result of more extensive business process review process in accordance with industry best practices,
- o Scope of project expanded to include 11 systems versus a 7 system integration, which was envisaged at the time of the F07/F08 RRA; including facility management and space optimization,
- o Security features enhanced in order to allow system to be available to wider range of users and external data sources (e.g. Land Registry),
- o Phased-in approach to implementation caused need for development, testing, and training in multiple business environments,
- o Extensive clean up of data residing in internal/external systems not factored into original estimate deemed necessary due to missing identifiers and historical data issues.

<b>Project Name: Enterprise Data Warehouse</b>	
<b>Forecast Capital Cost:</b> \$8.8 Million	<b>In-Service Date:</b> December 2009
<b>Development Phase:</b> Definition / Implementation	<b>Filing Reference:</b> New
<p><b>Description:</b></p> <p>The Enterprise Data Warehouse project will deliver a new business intelligence platform which will provide standard financial management and operational reporting; and consolidate the existing PeopleSoft Enterprise Performance Management / Business Performance Reporting / Business Transactional Analysis and PassPort Data Warehouse environments into a single enterprise data warehouse environment.</p> <p>This project includes the following elements:</p> <ul style="list-style-type: none"> <li>○ Upgrading of BC Hydro's Cognos reporting software from version 7 to version 8,</li> <li>○ Implementation of a new enterprise data warehouse for reporting, and</li> <li>○ Establish a Business Intelligence Competency Centre.</li> </ul>	
<p><b>Key Drivers:</b></p> <p>Usability and maintainability of a single data warehouse / reporting system.</p>	
<p><b>Issues Being Addressed:</b></p> <p>Provide standard financial, management and operational reports that meet corporate and business group requirements.</p> <p>Deliver a business intelligence platform that:</p> <ul style="list-style-type: none"> <li>○ Reduces the time and cost to create or modify reports,</li> <li>○ Adds value to existing reports through increased rollup (scorecards/dashboards) and drill down capabilities,</li> <li>○ Enables new reports to be created from multiple source systems: financial, work management, risk, operations, and</li> <li>○ Provides a vehicle to increase visibility around BC Hydro policies and procedures.</li> </ul> <p>Reduce operating costs for enterprise systems by consolidating the existing PeopleSoft Financials data warehouse (EPM) and the Indus Passport data warehouse (PDW) into a single, new enterprise data warehouse.</p>	

**Discussion of Alternatives:**

- i) Do Nothing - Under this option, BC Hydro would retain the existing dual data warehouse environment and enhance these systems as necessary in order to meet reporting requirements. Business groups would create enhanced departmental reporting solutions. The cost to maintain the two data warehouse environments would continue to be higher than the cost to maintain one.
- ii) Implement an enterprise data warehouse with Cognos software and services - Under this option a new, partly pre-packaged, enterprise data warehouse for financial (initially) and operational data is implemented by Cognos as part of an accelerated services engagement. In the first phase a number of "out of the box" reports, cubes and queries are delivered in addition to a set of BC Hydro corporate and business group specific reports.

Two major software components comprise the proposed Cognos solution:

- o Performance Applications – a set of pre-constructed data extractions specific, in this case, to PeopleSoft Financials; and an optimized, generic data model which integrates multiple subject areas, including general ledger, accounts payable, projects, fixed assets and work management.
  - o Business Intelligence 8 – a new version of the BC Hydro standard reporting platform.
- iii) Implement an enterprise data warehouse with strategic IT support provider – Under this option a strategic IT support provider is used to implement an enterprise data warehouse and associated reports. The data warehouse and data model would be designed and implemented by data warehousing specialists from the chosen strategic IT support provider based on models from other BC Hydro data warehouse projects.

Under this option, BC Hydro's strategic IT support provider would be required to develop a custom data extraction, transformation and load routine using Informatica (commercial ETL package) which will be complicated and costly to maintain and will not provide the needed flexibility required to easily make data model changes and expeditiously deliver reports. Furthermore, this option does not provide the desired flexibility needed to incorporate other key data sources required for complete business reporting.

**Additional Information:**

**Tab 4**  
**Appendix J- Fiscal 2011 Revenue Requirement Application – BC**  
**Hydro Exhibit B-1**

**F2011 Revenue Requirement Application Appendix J**

<b>Project Name: Plan and Schedule Work Management Project</b>	
<b>Forecast Capital Cost:</b> \$20.0 million	<b>In-Service Date:</b> F2013
<b>Development Phase:</b> Definition	<b>Filing Reference:</b> New
<p><b>Description:</b> BC Hydro has multiple approaches to managing work across the organization. The processes can be complex and manual for field staff resulting in less "time on tools". Currently there are four work types and each are managed differently, resulting in a significant amount of time spent by field staff on coordinating and organizing work rather than actually working "on tools". The purpose of this project is to develop and implement an enterprise wide business process and the necessary supporting technology for initiating, planning, scheduling, dispatching, and closing work.</p>	
<p><b>Key Drivers:</b></p> <ul style="list-style-type: none"> <li>• Improve "time on tools"</li> <li>• Simplify work processes and reduce the costs associated with planning and scheduling work processes</li> </ul>	
<p><b>Issues Being Addressed:</b> There are a variety of issues being addressed by this project:</p> <ul style="list-style-type: none"> <li>• Field staff and management spend too much of their time completing manual work processes related to planning, scheduling and dispatching work. New processes and technology are needed to allow them to spend more "time on tools" and "time managing staff and safety"; and</li> <li>• Currently there are multiple non-integrated technologies involved in the work planning process, making it complex and costly. Implementing an integrated solution will allow for the reduction of the work complexity, the reduction of the number of applications, and the reduction of costs.</li> </ul>	
<p><b>Discussion of Alternatives:</b></p> <ul style="list-style-type: none"> <li>i) Do Nothing – The current processes and systems are costly and complex to manage and to change and are not serving the business well.</li> <li>ii) Plan and Schedule Work Project – development and implementation of an enterprise wide business process and the necessary supporting technology for initiating, planning, scheduling, dispatching, and closing work.</li> </ul>	
<p><b>Additional Information:</b> The project is in the definition phase. Work is currently underway to determine the timing and approach to implementing improved enterprise business processes. Technology solutions have not yet been defined.</p>	

**F2011 Revenue Requirement Application Appendix J**

<b>Project Name: Enterprise Financials Upgrade</b>	
<b>Forecast Capital Cost:</b> \$14.1 million	<b>In-Service Date:</b> F2011
<b>Development Phase:</b> Implementation	<b>Filing Reference:</b> F09/F10 RRA, Appendix J, Page 89
<p><b>Description:</b>                  PeopleSoft Financials is an enterprise system which consists of accounts payable, asset management, billing, contract, expenses, general ledger, project costing and receivables. BC Hydro has been using PeopleSoft Financials for transaction processing, allocation, consolidation and financial reporting. PeopleSoft Financials was implemented in multiple phases, with modules going live between 2001 and 2003.</p> <p>The Enterprise Financials Upgrade project involves migrating BC Hydro's financial system from PeopleSoft to SAP by further leveraging the SAP platform BC Hydro has been using for customer care and billing since 2003.</p>	
<p><b>Key Drivers:</b></p> <ul style="list-style-type: none"> <li>• Reliability of financial management system</li> <li>• Reporting in accordance with the BCUC Uniform System of Accounts (BCUC USoA) and International Financial Reporting Standards (IFRS)</li> </ul>	
<p><b>Issues Being Addressed:</b></p> <ul style="list-style-type: none"> <li>• BC Hydro's current financial system is a significantly customized version of PeopleSoft Financials 8.0 SP3. This version was originally released in July 2002 and has not been supported by the vendor since 2007. There is no additional extended support available to BC Hydro.</li> <li>• In addition, the current financial system is not adequate to support reporting in accordance with IFRS and the BCUC USoA.</li> <li>• Without a significant change to the financial system, BC Hydro will not have a long-term reliable solution to support financial management and reporting.</li> </ul>	
<p><b>Discussion of Alternatives:</b></p> <ul style="list-style-type: none"> <li>i) Do Nothing - This alternative is considered inappropriate as BC Hydro's financial system will continue to be unsupported, and BC Hydro will not be able to report in accordance with IFRS and the BCUC USoA.</li> <li>ii) Re-implement a new version of PeopleSoft Financials - This alternative would provide additional functionality by migrating to PeopleSoft Enterprise Financial Management Release 9.0. However, this approach does not lead to simplification and consolidation of BC Hydro's overall IT landscape, so is not considered to be a long-term solution for BC Hydro's financial management and reporting needs.</li> <li>iii) Migrate Financial System to SAP - This alternative addresses all of the issues, and by leveraging the SAP platform BC Hydro has been using for customer care and billing since 2003 it also provides the platform for a long-term enterprise resource planning strategy.</li> </ul>	
<p><b>Additional Information:</b>                  The scope and timing of the Enterprise Financials Upgrade project has changed relative to the project described in the F09/F10 RRA. Specifically, the scope was expanded to include a comprehensive rework of the financial data model to align BCUC regulatory views and the project timing was adjusted to align with the expected IFRS implementation date.</p>	

**F2011 Revenue Requirement Application Appendix J**

<b>Project Name: Project &amp; Portfolio Management (PPM)</b>	
<b>Forecast Capital Cost:</b> \$15.0 million	<b>In-Service Date:</b> F2011-F2012
<b>Development Phase:</b> Definition/Implementation	<b>Filing Reference:</b> New
<p><b>Description:</b> PPM will create foundational processes and technologies for improved project and portfolio management practices available across BC Hydro. The first waves of the implementation are designed to improve the business processes that deliver EARG's engineering construction projects:</p> <ul style="list-style-type: none"> <li>• Wave 1 will replace BC Hydro's legacy project management system, InfoPM, with a Primavera project management system, interfaced to the new SAP financial system; and</li> <li>• Wave 2 will expand the PPM-related functionality delivered by Primavera and SAP and will build out enhanced PPM business practices within EARG.</li> </ul> <p>Implementation for other areas across BC Hydro will be evaluated, planned and approved after Wave 2 delivery for EARG.</p>	
<p><b>Key Drivers:</b> In order to better manage its increased capital expenditures, BC Hydro is streamlining and improving its processes. Groups within BC Hydro use varied project or portfolio management methodologies, limiting the utilization of common tools and the development of common processes.</p>	
<p><b>Issues Being Addressed:</b></p> <ul style="list-style-type: none"> <li>• The technologies and processes developed under PPM will provide a platform of common business processes and tools for use by other areas of BC Hydro.</li> <li>• In order to coordinate with other systems, interfaces must be replaced from the current project management environment to the new SAP financial system.</li> </ul>	
<p><b>Discussion of Alternatives:</b></p> <p>i) Maintain the Status Quo – will not allow BC Hydro to address the challenges set out in the key drivers section above.</p> <p>ii) Project &amp; Portfolio Management.</p> <p>An option under Wave 1 was to retain the legacy project management system, InfoPM, and to develop interfaces from this legacy system to the new SAP financial system. However, this legacy application is effectively at the end of its economic life and the development of the interfaces to SAP would be complex and expensive.</p> <p>An option under Wave 2 is to retain the existing business processes and not implement the enhanced processes for planning, scheduling, reporting, etc. that are made available by the new PPM software platforms. However, this alternative would not enhance BC Hydro's ability to manage its portfolio of capital projects.</p> <p>The selected option will address the key drivers, and improve business processes within EARG by taking full advantage of the functionality delivered by Primavera and SAP.</p>	
<p><b>Additional Information:</b> Initiatives examining project management practices within EARG have occurred previously (back to 2006), including some non-system deliverables that formed the basis for the PPM project. PPM was not formed at the time of the last filing.</p>	

**F2011 Revenue Requirement Application Appendix J**

<b>Project Name: Microwave Modernization</b>	
<b>Forecast Capital Cost:</b> \$12.3 million	<b>In-Service Date:</b> Various In-Service Dates
<b>Development Phase:</b> Definition/Implementation	<b>Filing Reference:</b> New
<p><b>Description:</b></p> <p>BC Hydro has a dedicated private fibre optic &amp; microwave system that is essential to the operation of the electric grid. The fibre optic &amp; microwave system connects mountain top repeaters, substations, generating stations and offices across the province. The system generally parallels the main arteries of the transmission system.</p> <p>The primary purpose of the system is to provide high speed and very reliable communication circuits to enable the monitoring, protection and control of power system equipment required for electric system reliability. This is essential to provide secure and dependable high-speed fault clearing for the 500 kV and 230 kV transmission systems, as well as for the operation and control of generating stations, including remedial action schemes to prevent transmission system overload or other problems. The bandwidth used by the protection and control circuits is a small portion of the available bandwidth on the system, so other business and operations functions are also carried on the system.</p> <p>As BC Hydro distribution projects such as Grid Modernization and Distribution Management System (DMS) are added, the system needs to be improved to support Internet Protocol (IP). IP will allow for the efficient introduction of the greater volumes of traffic required by these new distribution projects.</p> <p>In addition the network topology and limitations in some of the equipment used in the backbone of the Fibre Optic &amp; Microwave System restrict access to the full bandwidth of the system. The capabilities of the new equipment overcome these limitations.</p>	
<p><b>Key Drivers:</b></p> <ul style="list-style-type: none"> <li>• Growth of the distribution system telecommunications requirements</li> <li>• Growth of the generation system telecommunications requirements</li> <li>• Increased dependence on telecommunications for business functions</li> </ul>	
<p><b>Issues Being Addressed:</b></p> <ul style="list-style-type: none"> <li>• Reliability will be increased by replacing outdated equipment and by closing loops in the existing network. Network loops provide alternate network routing and remove single points of failure.</li> <li>• Capacity will be improved with the deployment of modern equipment and by changes to the network topology.</li> <li>• Costs will be reduced by minimizing the reliance on third party circuits and network facilities.</li> </ul>	
<p><b>Discussion of Alternatives:</b></p> <ul style="list-style-type: none"> <li>i) Do nothing – This option will not address the risks to the safe and reliable operation of the electric system and is not a viable option.</li> <li>ii) Modernization of the Microwave System – see section on Issues being addressed.</li> </ul>	

**F2011 Revenue Requirement Application Appendix J**

<b>Project Name: Enterprise Service Bus (ESB)</b>	
<b>Forecast Capital Cost:</b> \$12.0 million	<b>In-Service Date:</b> Various In-Service Dates
<b>Development Phase:</b> Definition/Implementation	<b>Filing Reference:</b> New
<p><b>Description:</b> The Enterprise Service Bus (ESB) provides an integration platform and framework for application integration. The ESB also provides other capital initiatives with development and sustainment resources for their integration.</p>	
<p><b>Key Drivers:</b> Integration capabilities need to be upgraded to meet the functional needs of initiatives such as the Enterprise Financials Upgrade and the Distribution Management System (DMS) ESB will enable:</p> <ul style="list-style-type: none"> <li>• A standard platform for real-time, corporate, and business to business integration needs;</li> <li>• Structured and disciplined integration development and sustainment being lead by integration experts;</li> <li>• Increased integration flexibility and reuse;</li> <li>• Central monitoring and logging of integration; and</li> <li>• Real-time policy based security framework.</li> </ul>	
<p><b>Issues Being Addressed:</b></p> <ul style="list-style-type: none"> <li>• Inconsistent and inflexible integration development is increasing integration costs, impacting reliability and security visibility, as well as reducing functional improvements because of the limited capabilities. Projects such as the Enterprise Financials Upgrade and Distribution Management System (DMS) require high-quality integration capabilities for current and expanding functional needs. Monitoring and issues resolution is currently a primarily manual exercise that will be made more efficient with ESB in place.</li> <li>• ESB will also enable the retirement of two integration platforms- MQ Series and See Beyond, as well as improved functionality extending the integration value with the addition of business process management and complex event processing.</li> </ul>	
<p><b>Discussion of Alternatives:</b></p> <p>i) Do Nothing – The current situation has lead to overly complex integration environment that is continually expanding the integration costs. This option would continue limiting the expenditure on functional improvements and expanding the money going to designing and developing around thickly layered integrations. Large complex projects would likely have to bypass current integrations and leverage something similar to the ESB.</p> <p>ii) Provide ESB software platform only – This option pushes development to the project and allows projects to use the ESB as they see fit. This would produce some consistency problems contrary to good integration. All integrations should be based off of the same standards. Traditionally the projects have used application development teams to lead the integration work which leads to integrations meeting the project's expectations, but not being flexible and reusable for the organization. Further this leads to additional sustainment costs over the medium and long term.</p>	

## F2011 Revenue Requirement Application Appendix J

<b>Project Name: Human Resources Information System (HRIS) Replacement Initiative</b>	
<b>Forecast Capital Cost:</b> \$10.2 million	<b>In-Service Date:</b> F2011-F2012
<b>Development Phase:</b> Definition	<b>Filing Reference:</b> New
<p><b>Description:</b> The Human Resources Information Systems (HRIS) replacement initiative will replace BC Hydro's current Human Resources Information Technology infrastructure with an integrated Human Capital Management (HCM) system. .</p>	
<p><b>Key Drivers:</b> In addition to supporting the organization's people strategies, the key business drivers for investment in HR information technology capabilities include:</p> <ul style="list-style-type: none"> <li>• Control and Compliance - governance over position management, confidential data access and security;</li> <li>• Alignment with Office of the Chief Information Officer objectives - consolidation of standalone and customized applications leveraging Enterprise Resource Planning (ERP) systems;</li> <li>• Adherence to Stakeholder Mandate - production of HR key performance indicators and workforce planning reports;</li> <li>• Operational Risk - ability to provide payroll and other HR services on a timely and accurate basis;</li> <li>• Third Party Service Provision - streamline vendor interfaces and improve end-user experience; and</li> <li>• Functional Integration - reliance of HRIS as an information hub to support dependent business processes within other functional areas (e.g., Finance, Safety, Procurement).</li> </ul>	
<p><b>Issues Being Addressed:</b></p> <ul style="list-style-type: none"> <li>• The last major investment in HR Information Systems occurred in 1998 when PeopleSoft was implemented as the core HR database, payroll and time &amp; labour system. Over the past decade, HR's IT infrastructure has consisted of a number of disparate and customized applications that have increased risk and created costly and inefficient business processes that have impacted HR's ability to effectively deliver its services, and report on key metrics in a reliable and consistent manner.</li> <li>• The objectives of the project are to: <ul style="list-style-type: none"> <li>▪ enable Human Resources (HR) to deliver its services faster and more efficiently;</li> <li>▪ enable employees and managers to directly access the HR information and services that they require when they need them; and</li> <li>▪ provide a single source for all HR business intelligence that will allow for more effective workforce planning, talent management and staff administration.</li> </ul> </li> <li>• Through this work, a number of existing HR applications and tools utilized across the enterprise will be consolidated or replaced. These applications and tools include recruitment, HR database, payroll, time &amp; labour, and position management.</li> </ul>	
<p><b>Discussion of Alternatives:</b></p> <ul style="list-style-type: none"> <li>i) Do nothing - Given the current state of HR's IT infrastructure this alternative is not feasible.</li> <li>ii) The HRIS replacement initiative - In determining the best delivery approach for the HRIS replacement initiative, the following alternatives have been explored: <ul style="list-style-type: none"> <li>▪ Build in-house IT solutions by leveraging both internal and external expertise;</li> <li>▪ Purchase and maintain the key components of its HRIT infrastructure); and</li> <li>▪ Outsource hosting and delivery of key systems and applications to third-party vendors.</li> </ul> </li> </ul> <p>The preferred option is to complement the buying and in-house support of the HCM technology with effectively utilizing third-party service provision where appropriate.</p>	

**Additional Information:**

The HRIS replacement initiative will take place in two phases:

Phase I (F2011): E-Recruiting

Phase II (F2012): Core HR (Personnel Admin., Organization Mgmt., Payroll, Time & Labour)

The initiative may include a third phase;

Phase III (F2013): Talent Management (Performance & Learning Mgmt., Succession Planning), which is not included in the forecast spend at this time.

**F2011 Revenue Requirement Application Appendix J**

<b>Project Name: Radio Technology Upgrade</b>	
<b>Forecast Capital Cost:</b> \$9.0 million	<b>In-Service Date:</b> F2014
<b>Development Phase:</b> Definition	<b>Filing Reference:</b> F09/F10 RRA, Appendix J, Page 88
<p><b>Description:</b> BC Hydro owns and maintains an extensive radio network, consisting of over 150 individual sites across the province. Radio technology is used to connect areas of the province where commercial network providers do not provide suitable service. This program will upgrade the existing infrastructure to ensure ongoing reliable radio connectivity which is used to ensure the safe and reliable delivery of electricity to BC Hydro's customers.</p>	
<p><b>Key Drivers:</b> Safety and reliability – The radio network is used for operation of the electric system across the province. Availability and reliability of the radio system is requested for the ongoing safe and reliable operation of the electric system.</p>	
<p><b>Issues Being Addressed:</b></p> <ul style="list-style-type: none"> <li>• System reliability.</li> <li>• Safety.</li> </ul> <p>This program will replace analog radio facilities with digital equipment at various locations throughout the province. Due to the age of the system and ongoing operational requirements, annual expenditures are required to allow for improvements and replacements in existing infrastructure.</p> <p>The scope of this project encompasses the following key items:</p> <ul style="list-style-type: none"> <li>• New site development due to safety or coverage issues;</li> <li>• Replacements due to irreparable failure; and</li> <li>• Strategic upgrades due to equipment obsolesce.</li> </ul>	
<p><b>Discussion of Alternatives:</b></p> <ul style="list-style-type: none"> <li>i) Do nothing – This option would not address the risks to the safe and reliable operation of the electric system and is not a viable option.</li> <li>ii) Replacement of all radio technology. This option is not deemed necessary at this time.</li> </ul>	

**F2011 Revenue Requirement Application Appendix J**

<b>Project Name: Distribution Management System (DMS)</b>	
<b>Forecast Capital Cost:</b> \$8.3 million	<b>In-Service Date:</b> F2012
<b>Development Phase:</b> Definition	<b>Filing Reference:</b> F09/F10 RRA, Appendix J, Pages 86 & 87
<p><b>Description:</b></p> <p>DMS will provide centralized visibility and control of the distribution system with enhanced decision support capability to assist in the day to day operations of the distribution system. DMS will contribute to the following value drivers aligned with BC Hydro's Guiding Principles and Short-term Priorities, and will enhance BC Hydro's ability to provide safe, secure and reliable energy supply to its customers in the event of major storms or other events:</p> <ul style="list-style-type: none"> <li>• <b>Financial:</b> The DMS project is expected to provide significant financial benefit, including deferral of feeder capital expenditures, accelerated roll out of energy savings initiatives, reduced fault location and restoration times, and increased workforce efficiency;</li> <li>• <b>Environmental:</b> rapid expansion of energy conservation will result in an incremental reduction in electrical intensity of 252 GWh between F2012 and F2026. DMS allows for Volt and Var optimization, which reduces the amount of energy consumed by customers by lowering the voltage at distribution feeders to optimal levels;</li> <li>• <b>Reliability/Customer:</b> DMS is expected to reduce CAIDI by three minutes resulting in improved reliability and customer satisfaction across customer segments experiencing lower reliability. Employees: Distribution, system dispatchers will be provided with enhanced decision support capability that will significantly improve the decision making process;</li> <li>• <b>Safety:</b> DMS will provide the ability to monitor and alarm in real-time when and if cable load levels exceed ratings. It will also allow real-time generation and verification of switching orders dispatched to field personnel. DMS will reduce the risk of human error in issuing switching orders and provide a more secure and safe environment for field personnel; and</li> <li>• <b>Alignment with 2007 Energy Plan:</b> This project aligns with the B.C. Government's 2007 Energy Plan, which calls for the use of innovation and technology to support energy savings and improve the performance of distribution assets. DMS will also aid in managing resource shortage issues.</li> </ul>	
<p><b>Key Drivers:</b></p> <ul style="list-style-type: none"> <li>• Energy conservation</li> <li>• System reliability</li> <li>• Improved customer satisfaction</li> <li>• Deferral of capital expenditures</li> </ul>	
<b>Issues Being Addressed:</b> See description section above.	

**Discussion of Alternatives:**

The alternative options considered are:

- i) Status Quo with Additional Resources to Sustain Manual Workload – Under this option, BC Hydro would continue with the existing Control Centre systems in conjunction with manual work methods and controls. This option does not provide real-time optimization of the distribution system. This option is not financially viable as additional resources would be needed to manually deal with complexity associated with the rollout of the real-time Volt Var Optimizer systems; and
- ii) Enhance the existing Electronic Mimic System - The existing Electronic Mimic system could be enhanced to provide some of the capabilities that a DMS would provide (e.g., partial capability for fault location, isolation and restoration). This option would not address the needs for real-time operations such as Optimal Power Flow and Volt Var Optimization. Without these advanced capabilities, the financial benefits associated with deferring feeder capital expenditures, and maximizing energy savings and efficiency gains from advanced decision capability would not be realized. The financial benefits associated with reductions in fault location and restoration would be only partially realized.

**F2011 Revenue Requirement Application Appendix J**

<b>Project Name: CDS4 – Common Desktop Standard 4</b>	
<b>Forecast Capital Cost:</b> \$7.6 million	<b>In-Service Date:</b> Various In-Service Dates
<b>Development Phase:</b> Design and Planning	<b>Filing Reference:</b> F09/F10 RRA, Appendix J, Page 85
<p><b>Description:</b>            BC Hydro requires an operating system that is compatible with the operating systems used by its partners, offers new capabilities to its employees and is supported by the vendor. The current operating system used across BC Hydro's desktops and laptops is Windows XP, which has been in place for close to seven years and can no longer efficiently support end user computing requirements. In addition, Microsoft no longer provides mainstream support for the operating system after April 2009, and will provide only security fixes. Due to the complexity of rolling out almost 8000 desktops and compatibility testing of 500 applications, approximately 2.5 years will be needed for design/build/test/deploy of a new operating system. The deployment will leverage regular hardware refresh procedures and other terms in existing contracts to minimize costs. Given the above functionality and support limitations of Windows XP, and the potential security risks after April 2010, BC Hydro is planning the deployment of a new desktop operating system. BC Hydro has reviewed the features associated with the Microsoft Windows 7 operating system and is designing a plan to implement the new operating system for laptops and desktops. Further, BC Hydro has started the initial rollout of collaboration services to users (web meetings, instant messaging, desktop conferencing) to enhance the efficiency of communication and reduce travel costs, among other goals.</p>	
<p><b>Key Drivers:</b></p> <ul style="list-style-type: none"> <li>• System reliability</li> <li>• System compatibility</li> <li>• System flexibility</li> <li>• System security</li> </ul>	
<p><b>Issues Being Addressed:</b></p> <ul style="list-style-type: none"> <li>• Business Risk (Microsoft support for Windows XP is ending).</li> <li>• Compatibility with other companies/partners using newer operating systems and tools.</li> <li>• User demands for new capabilities such as collaboration.</li> </ul>	
<p><b>Discussion of Alternatives:</b>            Non-Microsoft Operating System - A detailed analysis of Lotus Notes was conducted in previous years but was not pursued. It was identified that user training and implementation of an alternative desktop technology would be cost prohibitive and would have a considerable impact to BC Hydro.</p>	
<p><b>Additional Information:</b>            This program will provide additional benefits including web meetings, instant messaging, desktop conferencing, integration of data, voice and email, as well as time and funds saved as a result of less travel.</p>	

**Tab 5**

**IT&T Update on Strategy Development – May 22, 2008 Audit and Risk Management Committee Meeting of the Board**

## EXECUTIVE SUMMARY

### IT&T UPDATE ON STRATEGY DEVELOPMENT

#### PURPOSE

To provide an overview of a proposed strategy for IT&T architectures and operations / organizations. This is a summary of the initial directions and recommendations.

#### Background

BC Hydro has a clear mandate and strategy to be a leader in conservation and energy efficiency. We enable our customers to be energy conservationists while improving our generation and distribution facilities as part of the strategy. This is transforming our business and operations. Efficient and effective information technology and telecommunications (IT&T) systems and operations, will be a critical asset in assisting this change and transformation.

Within the BC Hydro strategy, the individual business groups are developing their strategies to meet their operational goals and objectives. These business group strategies set a direction for IT&T, to define a strategy that will focus on transformational systems and operations. The current IT&T systems and operations within Hydro will need to migrate to a stronger more robust environment, to enable the business groups to meet their objectives.

The current state of IT&T systems and operations has had mixed results in supporting the business. As we move to an enterprise state and the strategic use of IT&T, we require an overall strategy going forward, but it must be one that is incremental and provide increased value to the business.

Over the past few years, the deployment of IT&T was driven by the individual business units attempting to address their specific needs. While this did meet some of those needs, we need to make a number of improvements:

1. Rationalize individual systems and more importantly, databases. We have over 600+ applications (not including the many spreadsheet applications in use) and 200+ databases supporting our business. Included in this mix is the use of four large ERP (enterprise resource planning) systems.
2. Better priority setting for resources. While the IT&T resources are required across the organization, there is no overall priority setting to best utilize those resources. While in each area, it may have seemed reasonable, too much work and too few people were causing projects to start but not finish or finish without the desired results.
3. Rationalize IT&T resources in the business, ABS and CIO. As a result of lack of confidence in delivery, lack of skilled resources, and focus on business group needs, the number of resources has expanded to over 540 ABS resources and 280 business unit resources (50 in CIO and does not include Powersmart). Shadow IT&T organizations have developed.

## EXECUTIVE SUMMARY

4. Rationalize infrastructure environment. To meet the needs of the business, the desktop and server environments have expanded to over 6500 desktops and over 900 servers. This is a complex and difficult environment to support and it is causing increasing overruns in operating costs.
5. Stronger overall governance of the IT&T investment. Individual business groups manage their budgets and action plans. We had over 400 projects last year in the business with many projects late or unfinished.
6. We spend in excess of \$45m in capital investment on IT&T and another \$72m in operating within the CIO. While the dollars are in line with other organizations, if we had our overall priorities better defined, we could achieve better results. These costs only reflect the CIO budget and do not include the individual expenditures in the business units for staff, project work, not through CIO, and some telecommunications costs (e.g. radio).
7. Implementing systems to support the business requires a focus on change management and sustainability. Many of the initiatives have had difficulty in reflecting the changes needed and the sustainment of those changes to meet the business benefits.
8. Telecommunications accountability and operations has been distributed across many business units. The result of has created a very difficult environment to support and maintain. With the advent of SMI and a need for an enterprise wide integrated network, it will be very difficult to deliver in the current structure and systems.

### **New Developments, Options and Recommendations**

We embarked on developing the IT&T strategy with the business operations strategy, and current state knowledge in mind. The first key activity was to work with the business groups in the development of their operating plans and strategies. These strategies, along with the enterprise strategy, enabled IT&T to develop its plan. Key principles were established:

1. Overall governance group made up of the ET members, with regular progress reports to the board.
2. Cross-functional business process maps to enable common views of business process and systems to meet the One Hydro and business group needs.
3. Agreed principles for the enablement of IT&T solutions including end to end design, 80/20 rule, design for tool time, and a single source of truthful information

From these foundations, a strategy for IT&T architectures and operations/organizations was developed. Below we have summarized the directions and recommendations.

## EXECUTIVE SUMMARY

### IT&T ARCHITECTURE

AFTER the work we did with the businesses in developing their business operations strategy, we developed the architecture. These architectures define the framework to build our systems. They are integrated, secure, meet the business process needs, information needs and can be sustained in a very effective manner. The IT&T strategy has a number of system architecture components. There are two key components: Application/database and telecommunications.

#### Application/database architecture

A core platform, performing the majority of the work, to meet the business needs and to provide a more sustainable environment was developed.

We recognized that we had deployed four different non-optimal ERP solutions. A solution to this issue was analyzed and two options were considered:

- best of breed - taking the current ERP solutions and integrating the best components,
- a single ERP .

The analysis was based on cross-functional process needs, integrated databases for single source, and total cost of ownership. We also looked at what the industry is using and what was considered best practice. Clearly, SAP is the industry leader and there have been many successful deployments in utilities similar to BC Hydro (over 1100 electricity, gas, and water utilities in 70 countries run SAP). We are therefore considering the recommendation of deploying an SAP environment. We currently use SAP successfully in the customer side, and could INCREMENTALLY deploy it in the financial and operational business groups over a 3-5 year period.

#### Telecommunications architecture

The architecture to date addresses primary business systems and the transmission microwave network. The future state of telecommunications in BC Hydro will see the need for mission critical networks to support advanced applications such as the smart grid and smart meters.

The architecture design will meet the advance needs of the business and the smart grid, and is based on internet protocols (IP), wireless/radio integrated networks and large-scale fiber and microwave backbones.

### OPERATIONS AND ORGANIZATIONS

To ensure we meet our goals and objectives, we need to re-align who and how we deliver the solutions to meet the business needs. There are five key areas:

1. Governance – a single governance group overseeing the key projects and operations. This change has been implemented.
2. Roles of architects – use architects in business process and technology to ensure frameworks and quality are designed into the enterprise architecture. This has been implemented within the CIO organization.

## EXECUTIVE SUMMARY

3. Role of change managers – to provide an oversight to all the change that is to occur in the organization and is responsible for the overall organizational change.
4. Roles of business – In this role, the business systems groups must retain the business and change responsibilities to ensure the systems are delivered and sustainable. More focus on the business design, analysis, implementation, and less on the technical.
5. Roles of IT&T - to ensure project success and operational efficiencies for the overall organization. A project office monitoring the top 30 projects and a redefinition of the delivery services for ABS and other groups has been implemented. It is recommended to move the telecommunications groups under a single management structure in the CIO's office.

### Next Steps

#### TIMING AND IMPLEMENTATION

The next area of strategy relates to the plans and timing of how we implement the strategy and the costs. First, the IT&T strategy is defined as part of the business priorities and plans. Second, we implement the strategy in an incremental manner to ensure the right people are doing the right things at the right time. Two key aspects are business project implementations, and organizational implementations.

1. Projects: We have developed a project interdependency chart that shows the overall plan to roll out the key projects along with an impact assessment to the end users and organizations. This allows us to oversee, plan and execute knowing the impacts and outcomes.
2. Operations and Organization: The key operational and organizational changes within the CIO office are underway. The key change management and realignments to the business group recommendations need to be implemented.

### Financial Implications (Business Case Not Required)

Finally, we summarize the financial aspects of the strategy, including capital and operating.

**Capital:** The majority of the project implementations could be carried out under the current capital plan of \$45m per year over the next three years. Some of the projects will need business cases defined and will require additional capital investment. An incremental amount of \$32-38m may be required. We will refine this amount as we develop the plans for key projects in EARG, field operations, safety, finance, HR/payroll, and project management.

**Operating:** We anticipate, with the planned projects, we would have a reduced sustainment cost for IT. This reduced amount, initially estimated at \$6-8m per year, is primarily due to reduced sustainment costs only within the CIO office. We have not developed the additional savings that may exist in the business units or additional business benefits from the new projects or optimization within the business units.

## EXECUTIVE SUMMARY

### NEW ADDITIONS FROM DON – MAY 20, 2008

### RESOLUTIONS FROM ET MEETING May 12<sup>th</sup> 2008

The following recommendations were approved at an extended team including executive team members and representatives from the business groups.

#### Agreement to establish two governance / oversight groups:

1. Executive IT&T Oversight Group comprised of the following members: SVP Customer (Bev van Ruyven), SVP Field Operations (Gary Rodford), SVP EARG (Chris O'Riley), Chief Safety, Health and Environment (Ray Stewart), CFO and CIO.

The mandate of this group is to provide oversight with respect to the IT&T value to the organization, risk management and the long term planning and investment in the IT&T asset.

This group will meet quarterly.

2. IT&T Leadership Group comprised of 12 individuals from the business groups. It is chaired by the CIO and will include:

- EARG (2): General Manager Generation (David Lebeter) and VP Engineering Roy Grout
- Field Operations (2): Senior General Manager Distribution (Donia Snow) and Senior General Manager Transmission and Construction Services (Pat Sawatsky)
- Customer: Customer Care and Conservation (2): Director (Bridgette Zacharias) or (Lisa Coltart) and Chief Technology Officer (Donna Leclair)
- Safety: Manager (1): (John Millard)
- Corporate Affairs (1): Manager Digital Communications (Michael Newland)
- Human Resources (1): Chief HR Officer (Lois Nahirney)
- Powerex (1): CFO (Mike Standbrook)
- CFO extended (1): Chief Strategy Officer (Trish Pেকেles)
- CIO (1): Chief Information Officer (Don Stuckert)

The IT&T Leadership Group mandate is to provide oversight with respect to ensuring the investment of the IT&T asset enables and supports the business. This includes the IT&T projects and operations are managed to deliver the business benefits, reflect the cross-functional and business group processes, manage the interdependencies of the major initiatives and ensure the resources are prioritized to meet the organizations' priorities.

This group will meet monthly.

## EXECUTIVE SUMMARY

### Agreement on Other Organization Recommendations

1. Adopt the organization realignment within the CIO's office including the role of the process and IT&T architects, the PMO, the service delivery management and business management.
2. Adopt the recommendations to the business groups' BIS units to reflect more change management and business process leadership.
3. Further analysis required for the recommended move of the telecommunications group from EARG to the OCIO.

### Agreement on IT&T Architectures

1. Adopt the technology architectures as proposed. For the recommendation with respect to the single ERP environment, the following recommendation was agreed to:

Each major initiative will complete the business process design and business functional requirements prior to software design. SAP will be used as a default solution. If the SAP environment does not meet the business needs, a bolt on solution will be considered. The priorities will be established by the IT&T Leadership Group but foundational projects will be considered first.

**Tab 6**

**BC Hydro Revenue Requirement F2009, F2010 – Transcript Volume 9 –  
Oral Hearing – Oct 15, 2008 (available on the BCUC website)**

**BRITISH COLUMBIA UTILITIES COMMISSION**

**IN THE MATTER OF THE UTILITIES COMMISSION ACT  
S.B.C. 1996, CHAPTER 473**

**And**

**An Application by British Columbia Hydro and Power  
Authority for Review of the F2009 and F2010 Revenue  
Requirements Application**

**Vancouver, B.C.  
October 15, 2008**

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**PROCEEDINGS AT HEARING**

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**BEFORE:**

<b>L. A, O'Hara,</b>	<b>Chairperson</b>
<b>B. Milbourne,</b>	<b>Commissioner</b>
<b>A. Rhodes,</b>	<b>Commissioner</b>

**VOLUME 9**

## APPEARANCES

G.A. FULTON, Q.C.	Commission Counsel
J. CHRISTIAN N. ELLEGOOD I. WEBB J. SOFIELD	British Columbia Hydro and Power Authority
D. CURTIS S. HILL	British Columbia Transmission Corporation
M. GHIKAS D. PERTTULA	Terasen Gas Inc (TGI), Terasen Gas (Vancouver Island) Inc. (TGVI), and Terasen Gas (Whistler) Inc. (Collectively Terasen Utilities)
D. AUSTIN	Independent Power Producers Association of British Columbia
P. COCHRANE R. CARLE	City of New Westminster
R. B. WALLACE	Joint Industry Electricity Steering Committee (JIESC)
D. NEWLANDS	Elk Valley Coal Corporation
C. DAL MONTE	Catalyst Paper Corporation
C. WEAVER	Commercial Energy Consumers of British Columbia <i>et al</i> (CEC)
L. WORTH J. QUAIL	B.C. Branch, B.C. Old Age Pensioners' Organization, Council Of Senior Citizens' Organizations, Federated Anti-Poverty Groups Of B.C., West End Seniors' Network (BCOAPO)
W. J. ANDREWS	B.C. Sustainable Energy Association, Sierra Club of Canada, British Columbia Chapter (BCSEA)
J. HUNTER M. OULTON	Canadian Office and Professional Employees Union, Local 378
A. WAIT	On His Own Behalf
S. MEADE	On His Own Behalf

1

**CAARS**

2

**VANCOUVER, B.C.**

3

**October 15<sup>th</sup>, 2008**

4

**(PROCEEDINGS RESUMED AT 9:00 A.M.)**

5

THE CHAIRPERSON: Please be seated.

6

**B.C. HYDRO COMMUNICATIONS, SAFETY,**

7

**HEALTH & ENVIRONMENT - PANEL 3**

8

**RAYMOND STEWART, Resumed:**

9

**SUSAN YURKOVICH, Resumed:**

10

**DEBBIE NAGLE, Resumed:**

11

THE CHAIRPERSON: Good morning, Mr. Christian. Some

12

preliminaries?

13

MR. CHRISTIAN: Yes. Good morning, Madam Chair. I do

14

have two matters this morning. I would have had more,

15

but I gather we had some printer problems. I'll have

16

some more undertakings to file, I understand, after

17

the morning break.

18

For now, though, I've only got one. It's

19

actually a revision to an undertaking we filed already

20

on Friday afternoon at Volume 7 of the transcript.

21

Mr. Webb filed Exhibit B-39, which was a response to a

22

question put to Panel 2 by Mr. Wallace with respect to

23

the line item, "Accumulated other comprehensive income

24

quarter". And we gave an answer to that undertaking

25

response but, upon review, it appeared that we

26

actually got the question wrong. We got the answer

1 right, but we got the question wrong. And I think Mr.  
2 Wallace observed that. I heard him expressing some  
3 surprise about it.

4 In any event, we've corrected it. We have  
5 the correct question now with the correct answer, so  
6 I'd like to file that as Exhibit B-39A.

7 THE HEARING OFFICER: B-39A.

8 (RESPONSE TO B.C. HYDRO UNDERTAKING NO. 14 - REVISED,  
9 RE. VOLUME 5, PAGE 772, LINE 26 TO PAGE 773, LINES 1  
10 TO 5, MARKED AS EXHIBIT B-39-A)

11 MR. CHRISTIAN: And then the other matter I'd like to  
12 address at the outset today also arises from Panel 2  
13 and their examination. In particular, there were some  
14 questions put to Panel 2 on Friday afternoon by  
15 Commissioner Milbourne. This is at Volume 7 of the  
16 proceedings, it starts at the bottom of page 1156.  
17 And at the starting off of -- the leap-off point for  
18 those questions was with respect to the IPP contracts,  
19 and whether they were take-or-pay contracts. And at  
20 1159, the proposition was put to the panel -- this is  
21 Panel 2,

22 "... There are periods where, because of the  
23 take or pay nature of the business, where  
24 paying for energy and we've got a price  
25 approximately three times of what we can  
26 generate for, and we're exporting energy we

1 generate."

2 And that question led to some further exchanges  
3 between Commissioner Milbourne and Panel 2.

4 At the end of it, Commissioner Milbourne  
5 requested that we put the response in writing, and  
6 that was on 1162, lines 13 through 15, and Mr. Webb  
7 agreed to do that. Upon review of that transcript  
8 series, we weren't comfortable that we were able to  
9 put our finger on the specific proposition that was  
10 being put to the Panel 2. The closest we could glean  
11 to it was -- or the nearest we could find that was a  
12 specific question was on page 1160 on lines 22 through  
13 25, and Commissioner Milbourne, you put it to Panel 2  
14 that those circumstances don't come up, or not very  
15 often, enough to make it material. And we went back  
16 through the transcript, we weren't really able to  
17 understand exactly what circumstances were being  
18 referred to.

19 **Proceeding Time 9:04 a.m. T2**

20 So I'm highlighting this because I don't  
21 think we can file an undertaking response right now,  
22 and I guess we have two alternatives before us, either  
23 one of which we're amenable to. First would be to  
24 bring the question back to Panel 6. Ms. Kurschner and  
25 Mr. O'Riley, of course, on the generation panel can  
26 speak to anything this Panel would like to know about

1 system operations. Alternatively we'd be happy to  
2 have it put to us again and see if we can put  
3 something in writing before Panel 6 takes the stand,  
4 which I expect will be early next week. So we're in  
5 your hands on that matter, but at this point I don't  
6 think I can file anything in response to that  
7 exchange.

8 THE CHAIRPERSON: All right, so Commissioner Milbourne's  
9 response to your alternative is that he will go back  
10 and review the transcript as well, and reformulate the  
11 question then this afternoon?

12 MR. CHRISTIAN: Excellent. Thank you.

13 COMMISSIONER MILBOURNE: In the not-too-distant future.

14 MR. CHRISTIAN: Excellent. Thank you very much. And  
15 that concludes my preliminary matters.

16 THE CHAIRPERSON: Thank you, Mr. Christian. Which means  
17 then that now we are going to complete with this panel  
18 with the remaining Panel questions here.

19 Commissioner Milbourne.

20 COMMISSIONER MILBOURNE: Thank you. Good morning. It's  
21 another day.

22 I'd like to just start by following up on a  
23 matter that, Ms. Yurkovich, you were discussing with  
24 Mr. Fulton, and it had to do with the witness aid that  
25 he put to you on Pacific Northern Gas's application  
26 for consideration of corporate donations and the

1 Commission decision that it should be kind of subject  
2 to the Solomonic treatment and half to the corporation  
3 and half to the ratepayers. And you -- because I  
4 believe your response was you distinguished B.C.  
5 Hydro's circumstances from PNG's and that you  
6 indicated that the purpose of their donations was to  
7 accomplish objectives that had more to do with the  
8 utility itself rather than to its ratepayers. And you  
9 said yours were in aid of -- targeted in aid of  
10 facilitating or expediting or minimizing the  
11 difficulty in accomplishing such things as expansions  
12 and so on and so forth. Did I understand that  
13 correctly?

14 MS. YURKOVICH: A: Yes. Support operations and  
15 infrastructure programs, as well as we also see  
16 benefits in recruitment and retention.

17 **Proceeding Time 9:07 a.m. T03**

18 COMMISSIONER MILBOURNE: Yeah, I was focusing more on  
19 what I took to be the infrastructural or expansion  
20 side of the business. And my question to you was  
21 along the lines that, given that, if those programs or  
22 investments are facilitated and happen earlier than  
23 they might otherwise have, as a result of your  
24 targeted donations program, that would seem to me to  
25 be a benefit to the shareholder, as the rate base or  
26 the combination of debt and equity would rise as a

1 result, and therefore the return would rise.

2 So it seems to me there's a benefit to the  
3 utility as well as to the customers of the utility.

4 So I just wanted your further comments on that.

5 MS. YURKOVICH: A: Can I just clarify that you're  
6 saying that because they carry on throughout the year,  
7 that it's that it's more generic, rather than --

8 COMMISSIONER MILBOURNE: No, I -- you indicated that it  
9 was targeted in aid of accomplishing objectives that  
10 had to do with what I would characterize to be  
11 expansion of the system, or investment in the system.

12 MS. YURKOVICH: A: Yes.

13 COMMISSIONER MILBOURNE: And I believe the way that the  
14 utility regulation business works, that that brings a  
15 benefit to the utility and its owner, as well as to  
16 the customer. If something gets done a year earlier,  
17 then the return comes to the shareholder a year  
18 earlier.

19 MS. YURKOVICH: A: Yeah, I think in general we think  
20 about these things as -- it's easier for us to  
21 operate, not just to build and expand the -- to re-  
22 invest in the infrastructure, but to be able to  
23 operate when we have the public on our side. So we  
24 really -- or support for initiatives that we are  
25 undertaking. We are an entity that has significant  
26 impacts on the communities where we operate, and I

1 think, you know, the world has changed dramatically in  
2 -- even since the PNG case was heard 16 years ago.  
3 Public expectation for engagement and participation in  
4 their communities, for information, is a lot higher  
5 than it was even 20 years ago.

6 And so, we believe fundamentally that if we  
7 have public support it makes it easier to continue to  
8 operate and to be able to deliver the services that we  
9 do to our customers. It's not just about corporate  
10 donations, it's also about communicating regularly  
11 with people in communities where we operate, engaging  
12 them in processes, making sure that they understand  
13 how we are operating and when there are going to be  
14 impacts on their communities. So it's more of a  
15 comprehensive nature, and we believe it delivers  
16 benefits to the customer.

17 COMMISSIONER MILBOURNE: And, not to put words in your  
18 mouth, but are you telling me, clarifying for me now  
19 that you don't see that there's any benefit to the  
20 shareholder?

21 **Proceeding Time 9:10 a.m. T4**

22 MS. YURKOVICH: A: Well, when we undertake donations  
23 that are associated with -- when we do it from B.C.  
24 Hydro's perspective, we don't consult with government  
25 about those decisions. We don't -- they're not  
26 associated with them. We -- they are specifically for

1 B.C. Hydro. So I'm not sure how the government  
2 benefits directly from those donations. I know we  
3 certainly do.

4 COMMISSIONER MILBOURNE: Okay. I'll leave it at that,  
5 thank you.

6 I have a couple of questions around the  
7 kind of health, safety and environment area. And the  
8 first question is, is there a committee of the board  
9 of directors that concerns itself with health, safety  
10 and environmental compliance at B.C. Hydro?

11 MR. STEWART: A: Yes, there is. The Human Resources  
12 Committee is the committee that I report to in some  
13 detail about safety and health.

14 COMMISSIONER MILBOURNE: Okay, thank you. So it's a  
15 combined responsibility. It's not an identifiable  
16 health, safety and environment committee.

17 MR. STEWART: A: Well, the major focus is on the safety  
18 and health at the moment because that's where we have  
19 most of the opportunities to improve, if you like,  
20 given the injuries we've been having.

21 COMMISSIONER MILBOURNE: Okay. In the environmental  
22 area, do you have measures of environmental compliance  
23 that are comparable to those you use in the health and  
24 safety area? In other words, frequency and severity  
25 of instances of non-compliance?

26 MR. STEWART: A: Yes, we have a very similar system.



1 in place for the health and safety side of the  
2 business? A management system.

3 MR. STEWART: A: Well, since we created the new safety,  
4 health and environment group, we have been revamping  
5 our management systems, and over the next 6 to 12  
6 months we will have a comprehensive system equivalent  
7 to the environment system.

8 COMMISSIONER MILBOURNE: At the present time, to answer  
9 my question, you don't have one?

10 MR. STEWART: A: Not a rigorous and formal system. We  
11 have systems, but we're going to be integrating those  
12 to make a safety and health one. And actually our  
13 goal is to have a combined safety, health and  
14 environment management system.

15 COMMISSIONER MILBOURNE: So you probably answered my --  
16 the second part of my question, but I'll ask it  
17 anyway. Do you have -- what steps do you take to  
18 ensure that the management systems you have are  
19 working?

20 MR. STEWART: A: We have internal audits periodically,  
21 which provide us feedback for where we need to  
22 improve.

23 COMMISSIONER MILBOURNE: I'm sorry, internal --

24 MR. STEWART: A: Internal audits of our systems and how  
25 we're using them.

26 COMMISSIONER MILBOURNE: By whom?

1 MR. STEWART: A: By our internal auditors in B.C.  
2 Hydro.  
3 COMMISSIONER MILBOURNE: But you don't have third-party  
4 independent audits.  
5 MR. STEWART: A: In the safety and health area?  
6 COMMISSIONER MILBOURNE: Yes. You indicated you did in  
7 environment.  
8 MR. STEWART: A: Yes.  
9 COMMISSIONER MILBOURNE: Or through the Canadian  
10 Electrical Association.  
11 MR. STEWART: A: Yes. No, not specifically in the  
12 safety/health area at this time.  
13 COMMISSIONER MILBOURNE: Who is responsible for the  
14 investigation of accidents?  
15 MR. STEWART: A: For the serious accidents, my group  
16 and myself are responsible for the investigations,  
17 carrying out the investigations.  
18 COMMISSIONER MILBOURNE: Do you have in place systems  
19 that engage the workforce in the identification and  
20 reporting of safety hazards and systems in place to  
21 ensure that those identified by the workforce are  
22 recorded, documented and followed up on for  
23 resolution? And I'm not talking about serious  
24 accidents, I'm talking about issues that come to the  
25 attention of the workforce, and concerns.  
26 MR. STEWART: A: Yes, we -- I think we have a pretty

1 powerful system for collecting the information that  
2 come out of incidents such as near-misses. These are  
3 all reported to our incident management system, and  
4 then they are reviewed. And they are categorized into  
5 three categories, and each category then is handled in  
6 a separate way. So the more serious ones get a  
7 rigorous review, and the less serious ones then are  
8 dealt with in a slightly lesser capacity, but  
9 nonetheless, with the intent of learning from these  
10 incidents to improve safety performance.

11 COMMISSIONER MILBOURNE: Could you describe a bit more  
12 that incident management system for me, please?

13 MR. STEWART: A: So, when an incident happens in the  
14 field, it's reported through the manager of the  
15 operating group that was involved. And a preliminary  
16 report is prepared through the incident system, which  
17 is within 24 hours of the incident. And then it gets  
18 categorized, and put into either level 1, 2 or 3, and  
19 then the investigation, if you will, of the incident  
20 is carried through the system. And the results are  
21 then -- require corrective actions, and those are  
22 posted.

23 COMMISSIONER MILBOURNE: Do you have systems in place  
24 that ensure that people in the workforce, in the  
25 field, are canvassed as to whether or not they have  
26 unresolved concerns?

1 MR. STEWART: A: Yes --

2 COMMISSIONER MILBOURNE: Or do you rely on after-the-fact  
3 reporting and recording?

4 **Proceeding Time 9:18 a.m. T6**

5 MR. STEWART: A: Yes, I think there's a couple of  
6 examples. We have a quarterly employee safety call,  
7 which is open to all employees across B.C. Hydro. And  
8 the employees bring up issues that they feel have not  
9 been resolved to their satisfaction. We collect that  
10 information and then we address their concerns.

11 The other avenue that we have is we have an  
12 employee council that meets quarterly with myself and  
13 the senior leaders of the operating groups, and we  
14 have an open and frank discussion with the  
15 representatives on that employee council. And many  
16 items, issues, concerns or opportunities are raised at  
17 that table, and again we collect that information and  
18 take action and feed that back.

19 So those are two actually pretty powerful  
20 means of gathering concerns in the field.

21 COMMISSIONER MILBOURNE: Thank you. Do you have in place  
22 a comprehensive loss management program with B.C.  
23 Hydro?

24 MR. STEWART: A: Yes, we do. I think if we think about  
25 it in terms of identifying the risks that are out  
26 there and then taking actions for loss prevention,

1           yes, we do. I'm not sure that we generally use the  
2           terminology of loss prevention. And I have to say  
3           that in my new organization, that is definitely the  
4           approach that we're taking, is really understanding  
5           the breadth of risks and providing those principles  
6           and loss protection. Loss prevention, sorry.

7   COMMISSIONER MILBOURNE:   If I understand, that's  
8           something you're looking for in the future as opposed  
9           to something you have?

10   MR. STEWART:   A:   Well, we're developing it in my NEW  
11           organization now as an overarching umbrella. You  
12           know, within the operating groups it is being  
13           practised, but my role and responsibility is to get  
14           the oversight view and pick up some of these, I would  
15           say, lower probability but higher consequence risks  
16           that we have in the system and then making sure we  
17           have our loss prevention in place.

18   COMMISSIONER MILBOURNE:   In the areas of health, safety  
19           and environmental compliance, you indicated that in  
20           both areas you keep records. You record incidents as  
21           to frequency and severity, for lack of better terms.  
22           And you, according to some of the information I've  
23           seen you set the targets in those areas for reductions  
24           in frequency of incidents and severity and so on.

25                           Is there any system in place at B.C. Hydro  
26           that links the achievement or non-achievement of those

1 objectives to the incentive portion of a manager's  
2 compensation, in a quantifiable sense?

3 MR. STEWART: A: So if we consider this particular  
4 year, for example, the goal that we have is for the  
5 workforce to identify hazards in their day-to-day work  
6 and then to put barriers in place between the worker  
7 and the hazard. And our goal is to make our workplace  
8 less dangerous by 10 percent for this year, and that  
9 is in the gain sharing agreement, and it is  
10 quantifiable and it's a new approach that we're  
11 taking.

12 If we focus, as we have in the past, on the  
13 statistics, some of those lagging indicators like the  
14 all injury frequency, it really doesn't drive  
15 behaviour with the workers and the frontline managers.  
16 It's a retrospective look, if you will. So what we  
17 wanted to do was move to leading indicators such as  
18 you would find in the oil and gas or the nuclear  
19 businesses, and that's what we're doing this year.

20 COMMISSIONER MILBOURNE: Well, let me try it a different  
21 way. In your -- I think it's in your service plan  
22 that it spells out -- we could have an offline debate  
23 about whether a leading or lagging indicator is the  
24 best motivation for improvement. That's not really my  
25 question.

26 In your service plan you indicate that



1 COMMISSIONER MILBOURNE: If you've got a ten percent  
2 reduction target, or whatever, right? If B.C. Hydro  
3 as an entity achieves that ten percent target, it  
4 would be a composite of some -- of a whole bunch of  
5 different management spheres, right? Some would go  
6 up, some would go down. The average might be that you  
7 achieve your objective. If I'm running one of the  
8 units that its performance deteriorated, would I still  
9 get the benefit of B.C. Hydro's overall performance  
10 improving?

11 MR. STEWART: A: So, overall there would be a  
12 percentage of the results pay that would take place  
13 because of the overall targets. But then within the  
14 operating groups themselves, they would probably --  
15 they would have their own targets, and if they meet  
16 them or don't meet them, it would then positively or  
17 negatively affect in the overall equation. So, you  
18 have the sort of corporate level and then, in each of  
19 the operating groups they would focus on their own  
20 performances and they would be rewarded or not  
21 rewarded accordingly.

22 COMMISSIONER MILBOURNE: But the portion of my incentive  
23 that related to corporate performance I would get  
24 regardless of how my unit performed. Is that what  
25 you're telling me?

26 MS. NAGLE: A: How it works is that you actually do

1 take a hit, for lack of a better expression, if your  
2 personal performance rating suffers because you didn't  
3 meet your targets as it relates to safety. Then, that  
4 becomes the starting point for the calculation of what  
5 you would get from a corporate multiplier perspective.  
6 So, you do actually get reduced incentive pay both for  
7 your individual goals and objectives, and you take a  
8 lesser proportion of the corporate multiplier. So you  
9 actually get a reduced portion on both sides.

10 COMMISSIONER MILBOURNE: Okay, I understand that. But  
11 would my personal target be different -- let's express  
12 it in percentage reduction terms. Let's keep it real  
13 simple. We want an overall ten percent reduction in  
14 accident frequency, right? Would my target be  
15 different than ten percent?

16 MS. NAGLE: A: I don't understand that question.

17 COMMISSIONER MILBOURNE: Okay. Well, you said a personal  
18 objective. Okay, I'm running a unit, I'm a manager  
19 running a unit that's got a hundred people in it,  
20 right?

21 MS. NAGLE: A: I'll perhaps re-phrase what I'm saying,  
22 and then perhaps you can tell me if that answers your  
23 question. But if, for example, my target is ten  
24 percent for my incentive pay, and I do not meet the  
25 safety targets, I also may have other targets as a  
26 personal individual. And say that the safety piece

1 means that my target is ten, but I actually only get  
2 five percent, because let's assume I'm at my financial  
3 targets, and I met my other personal goals and  
4 objectives. Then if we met the threshold targets with  
5 regards to the corporate goals and objectives, then  
6 that -- then five percent is used to then multiply on  
7 top of the corporate multiplier. So you actually get  
8 -- you get a reduced amount for what the company did,  
9 because you didn't contribute to the overall increase  
10 at the corporate level.

11 **Proceeding Time 9:29 a.m. T8**

12 So you actually do have -- you do have a  
13 reduced amount. You don't -- if Susan met her goals  
14 and objectives in terms of she met her 10 percent  
15 target, and she got the corporate multiplier, she  
16 would actually get more incentive pay than I would.  
17 So you actually get a reduced amount. The corporate  
18 multiplier applies to all people.

19 But the other thing is that if I actually  
20 got zero, then I get nothing in terms of the corporate  
21 multiplier. So the penalties are set in there if you  
22 don't meet those goals and objectives.

23 Now, the other piece is that as an  
24 individual I could have a personal goal and an  
25 objective on my personal service plan. I could also  
26 have a business group goal or objective set within my

1           10 percent, my personal 10 percent. If I don't meet  
2           my personal and the business group goal, I actually --  
3           that again leads back to a lower multiplier -- pardon  
4           me, a lower personal incentive pay rating or  
5           performance rating, which again detracts from the  
6           corporate multiplier. But you have to have a  
7           sufficient performance rating in the first place  
8           overall to get anything from the corporate multiplier.  
9           And again, the corporate numbers are a combination of  
10          safety and financial and customer satisfaction, so  
11          when that is paid out, it is not paid out simply based  
12          on the safety piece.

13                        So what we're trying to say is that you get  
14          a lower rate and you can actually get nothing if you  
15          don't meet your targets.

16   COMMISSIONER MILBOURNE:   Thank you. I understand how the  
17          system works. What I'm trying to understand is  
18          whether or not I as a manager can pick a different  
19          target in what you call my personal objective, for --  
20          a target that's been published as a corporate target  
21          in terms of reduction in accident frequency. And I  
22          pick one that's different and then get --

23   MS. NAGLE:    A:    You can't opt out of the -- if you're  
24          saying can you opt out of the corporate? No.

25   COMMISSIONER MILBOURNE:    So all the management, all the  
26          people responsible for managing people get the same

1 safety target.

2 MS. NAGLE: A: Correct. Yes.

3 COMMISSIONER MILBOURNE: Okay, that's really what I was  
4 trying to get at, okay.

5 MS. NAGLE: A: Okay.

6 COMMISSIONER MILBOURNE: Not that I could pick a  
7 different one.

8 MS. NAGLE: A: Sorry. It's early.

9 COMMISSIONER MILBOURNE: So you're sure about that?

10 MS. NAGLE: A: Yes. Everyone is subject to the service  
11 plan performance metrics.

12 COMMISSIONER MILBOURNE: Could you explain me why there's  
13 not a comparable target, since you say you measure  
14 them the same way, on environmental frequency and  
15 severity?

16 MR. STEWART: A: I think it really relates to the  
17 nature of the environmental incidents that we've been  
18 having over the last few years. They are very minor  
19 in nature. So when you make a comparison to the  
20 impact coming from those environmental incidents  
21 versus the impacts from the safety incidents, it's  
22 really very minor. So in the interest of really  
23 picking on the priorities that are affecting our  
24 business and kind of could affect it dramatically,  
25 that's where the focus has been.

26 COMMISSIONER MILBOURNE: Okay. Then my last question in



1 MR. CHRISTIAN: And it might be helpful to actually refer  
2 to the service plan, Appendix C in the application. I  
3 think the question is, which of the parameters  
4 described there are the ones that are reflected in  
5 the --

6 COMMISSIONER MILBOURNE: Yeah, how do you come up with a  
7 parameter out of that shopping cart that you can  
8 actually link to an individual's performance?

9 THE CHAIRPERSON: And I presume examples that  
10 Commissioner Milbourne is talking about -- so it's  
11 Appendix C of the application, and for instance on  
12 page 22 of 37 there are the financial efficiency  
13 performances.

14 COMMISSIONER MILBOURNE: Yeah.

15 THE CHAIRPERSON: Net income, return on assets, return on  
16 regulatory equity, EBIT, interest coverage and debt to  
17 GAAP equity.

18 MS. NAGLE: A: Thank you for bearing with us while we  
19 chatted that out. Finance actually does the  
20 calculations, with respect to how this actually  
21 translates from these particular metrics into the  
22 actual incentive payouts, and so when the HR  
23 department works with Finance, all those calculations  
24 are done, and then my understanding of this, as I've  
25 not been through a full cycle in this role, is that  
26 those numbers actually come forward from Finance and

1 so we've actually just talked it through and not one  
2 of us is familiar enough with the detailed  
3 calculations or how that works across the board to  
4 respond to this question.

5 COMMISSIONER MILBOURNE: I don't have any particular  
6 problem with -- that all these numbers are calculable.  
7 They're all kind of legitimate metrics. My question  
8 is, as a manager, since most of these result from the  
9 setting of parameters by this very process that we're  
10 going through now, how in fact can the individual  
11 manager in the organization influence these?

12 MS. NAGLE: A: Are you speaking to all of the metrics,  
13 or just strictly to the finance ones at this point?

14 COMMISSIONER MILBOURNE: I'm talking to the financial  
15 metrics. These one, two, three, four, five items that  
16 are listed under performance measures in the financial  
17 section on page 22 out of 37.

18 **Proceeding Time 9:39 a.m. T10**

19 MS. NAGLE: A: With regards to a typical manager, in a  
20 department, they're managing a budget. They each have  
21 their own budget dollars, and throughout the course of  
22 the year, they are responsible for making sure that  
23 they come in on target in terms of their budget. And  
24 how they can make a difference is by doing that.

25 A second area issue is that say Susan and I  
26 are working in a peer department and she's the manager

1 of one group and I'm the manager of another group, and  
2 my department actually has an unexpected cost that is  
3 going to be higher. Susan, working as the broader  
4 team, would actually maybe be able to cut a cost in  
5 her department to make sure that we all come in under  
6 the broader budget target of say our vice-president.  
7 And so when you think about what a manager does,  
8 coming in on budget, coming in target and actually  
9 looking for cost efficiencies within your own  
10 department for the greater good of one B.C. Hydro is  
11 one of the things that we can do, constantly looking  
12 for cost efficiencies or improvements.

13 I'll give you an example. In corporate  
14 human resources just this last year, we went out to  
15 market with regards to the agencies that we used to  
16 help for recruiting, and we negotiated about a 25  
17 percent reduction in the costs that we pay to agencies  
18 for placement fees. Those costs are actually borne  
19 out by other departments in the company. That didn't  
20 result in a cost savings for human resources. We  
21 estimate that savings between \$350,000 to maybe 300,  
22 but that is actually a cost efficiency that we went  
23 out and did, not to our own benefit but to the rest of  
24 B.C. Hydro. So that's another example of how I expect  
25 my managers to go out and do that on a regular basis.

26 We reduce the costs of our on-boarding and

1       our orientation programs by about \$35,000 this year,  
2       just by being more efficient, looking at different  
3       ways to how to orient people, and do that in a better,  
4       more efficient manner. And so when you think about  
5       how managers can influence these metrics, they can do  
6       that every day on the job depending on how they look  
7       at it.

8                        Another one that I think has been  
9       previously spoken to is that in the course of working  
10      with our customers, if we make sure that we do our job  
11      for them on time, and that we meet whatever deadlines  
12      that we have, and again we do it in a cost-efficient  
13      manner, meeting customer satisfaction rates also can  
14      have a positive impact with regards to our financial  
15      metrics.

16                      So I think that managers do believe and  
17      feel they make a difference at the end of the day,  
18      because how we actually behave and how we actually  
19      think in terms of costs within the organization lead  
20      to the outcomes with regards to these performance  
21      metrics.

22   COMMISSIONER MILBOURNE:    I clearly understand your  
23      comments about budgetary compliance.

24   MS. NAGLE:        A:    Yes.

25   COMMISSIONER MILBOURNE:    But I'm trying to understand, is  
26      that what comes out of this as your principal measure

1 of financial efficiency that you use in your incentive  
2 program? Or what is the -- how do you go about  
3 calculating that factor in your progression? If you  
4 -- I don't want to appear argumentative, but it's just  
5 the way of trying to get to an understanding.

6 If you told me that the financial metrics  
7 at the management level were based on budgetary  
8 compliance, that would be the end of my line of  
9 questioning. But I'm not hearing that that's -- I  
10 hear that as an example. But is that the metric  
11 you're using or is it some of these things?

12 MS. NAGLE: A: There is a calculation to that, and that  
13 goes back to what I was saying earlier, that Finance  
14 actually performs that calculation for us based on  
15 this. And none of us have that calculation. We  
16 cannot speak to that calculation here.

17 COMMISSIONER MILBOURNE: Could you put on the record a  
18 copy of that calculation? Hopefully it'll relate  
19 these to the incentive program.

20 MR. CHRISTIAN: Maybe we could take the undertaking in a  
21 slightly broader context and go to what I think the  
22 heart of your question is, which is what is the  
23 specific metric in the performance pay contracts that  
24 it is measured against? And I understand that to be  
25 the question. And the answer was the calculation  
26 comes from Finance, so you want to see the calculation

1 and I'm happy to provide the undertaking response, but  
2 it just suggests to me that a slightly broader version  
3 against your concern might be more useful.

4

5

**Proceeding Time 9:44 a.m. T11**

6 COMMISSIONER MILBOURNE: Given my notable lack of success  
7 in posing a clear question on an earlier matter, Mr.  
8 Christian, please formulate it your way, and I'll look  
9 it over, and then we may have a *quid pro quo* here.  
10 Thank you.

11

**Information Request**

12 COMMISSIONER MILBOURNE: I have a couple of questions  
13 surrounding your 50<sup>th</sup> percentile benchmark, which you  
14 referred to several times in the course of these  
15 proceedings. And it has to do with -- and again, just  
16 by way of context, I understand the basic notion and  
17 the mechanics of the 50<sup>th</sup> percentile approach. But my  
18 question has to do with the different, and I'll call  
19 it "strata" in the hierarchy, the organizational  
20 hierarchy. And at the kind of -- there's kind of the  
21 executive level, and then there's what I call a  
22 "general management" level, and then there's the  
23 professionals and then you kind of get to the  
24 supervisory, technical and staff level, and then you  
25 get kind of, what I call it, the clerical and  
26 resource-type groups, and then you get to the -- where

1 the rubber meets the road with the people who kind of  
2 do the work. I think your explanation the other day  
3 on the people that "do the work", the IBEW, COPE, and  
4 so on, was fairly clear where that comes from.

5 What I'm trying to understand is, where do  
6 you get the comparators, comparator group for the 50<sup>th</sup>  
7 percentile assessed evaluation, or benchmark, for your  
8 executive group? Where does it -- what's the  
9 comparator group? Or the source.

10 MS. NAGLE: A: So -- yes, okay. So, firstly, the  
11 relative -- I'll just answer from the top, which is  
12 the relative industries that we compare ourselves to,  
13 before we even get to the executive group, is general  
14 industries with annual revenues of a billion dollars  
15 or greater, other general electric utilities. And  
16 then we also look at the Canadian energy industry as a  
17 whole. Then from there, we work with Mercer's to get  
18 the executive management, and they also give us  
19 professional data as well, compensation survey data.  
20 And then we also work with Towers Perrin, with regards  
21 to their general industry executive survey as well.  
22 So, we have two sources that we work with for  
23 executives.

24 COMMISSIONER MILBOURNE: So at the risk of putting words  
25 in your mouth, your comparator group for B.C. Hydro as  
26 a regulated utility includes, I'll call it public

1 corporations with the revenues in the one billion and  
2 up range?

3 MS. NAGLE: A: That would be correct.

4 COMMISSIONER MILBOURNE: Where those revenues are not  
5 "assured". In other words, there's no market risk in  
6 your revenue.

7 MS. NAGLE: A: The reason that you compare to those  
8 types of companies is that's where we compete to the  
9 market, and that's where we lose people to that  
10 marketplace as well. And that's why we compete within  
11 those comparator groups. And this process is all,  
12 again, approved under PSEC in terms of how it's all  
13 calculated, as a Crown corporation.

14 COMMISSIONER MILBOURNE: I understand the PSEC role as  
15 well, so that's okay.

16 Do you look specifically at comparison with  
17 other large B.C. Crown corporations and authorities?

18 MS. NAGLE: A: So, my understanding of the Towers  
19 Perrin and the Mercer's data is that -- I haven't  
20 looked for those companies in particular. I have a  
21 manager of total compensation and rewards who actually  
22 heads up the group that takes care of this component.  
23 But I believe that those companies would participate  
24 in the same surveys as we do, because they also need  
25 to compete to the marketplace.

26 So to the best of my knowledge, those Crown

1 corporations are also in those same surveys.

2 COMMISSIONER MILBOURNE: Okay, thank you. In terms of  
3 your, what I call "ticketed professionals", lawyers,  
4 engineers, CAs, CMAs, people with -- that have to have  
5 a ticket or equivalent to do their work.  
6 Professionals.

7 Proceeding Time 9:49 a.m. T12

8 MS. NAGLE: A: Yes?

9 COMMISSIONER MILBOURNE: Where do you look for  
10 comparators there?

11 MS. NAGLE: A: It's roughly the same place. We also  
12 have -- we have data that comes from Hay. So there's  
13 a number of different resources that you can use from  
14 a compensation perspective. But the next one that we  
15 would go to is Hay, and then there's also Towers  
16 Perrin energy survey, and there's -- when you go back  
17 to the Mercer's executive, it's also inclusive of  
18 management and professionals, and professionals would  
19 be in that category.

20 COMMISSIONER MILBOURNE: Within the professional --  
21 professionally ticketed group, would you agree with me  
22 that a lot of the employers other than large  
23 organizations such as B.C. Hydro do not provide the  
24 level of income security or in particular post-  
25 employment benefits that come from working in a large  
26 organization? And just further to that, there's

1 generally a difference in apparent salary between  
2 people who work in professional service organizations  
3 as opposed to professionals who work for, I'll call it  
4 "operating organizations". In other words, a lawyer  
5 in private practice tends to have a higher apparent  
6 compensation level than a lawyer who's on the payroll  
7 of a \$3 billion corporation. But the *quid pro quo* is  
8 that the lawyer in private practice has a large  
9 portion of his overall earnings based on (a), he eats  
10 what he kills, for lack of a better term, and he  
11 doesn't get any guarantees in terms of employment  
12 length, he doesn't get any guarantees in terms of the  
13 post-employment benefits. He's on his own, right?  
14 He's practicing within a professional practice. To  
15 some degree the accountants, in many cases the  
16 engineers fall in those same categories.

17 So what I'm asking for -- asking you is,  
18 when you look at the comparators in the professionally  
19 ticketed area, do you include people in professional  
20 service providers as part of that comparison? Or do  
21 you look to people who are in comparable employment  
22 situations with large organizations?

23 MS. NAGLE: A: So, just to clarify, so for a lawyer,  
24 for example, are you saying that -- do we look at the  
25 information put forward by law firms, hire-for-service  
26 law firms, versus lawyers who work for private- or

1 public-sector?

2 COMMISSIONER MILBOURNE: Yes.

3 MS. NAGLE: A: Okay.

4 COMMISSIONER MILBOURNE: Lawyers who have a steady pay  
5 cheque and benefits.

6 MS. NAGLE: A: Yeah. We -- the surveys that we  
7 actually respond to -- or pardon me, that we  
8 participate in, and then look to get data from, are  
9 the category that they're not the law firms that are,  
10 you know, fee-for-hire. We actually look at large  
11 corporations. The reason for that is, is that we've  
12 found that the data, in terms of what we're looking  
13 for, from the Towers Perrin, Mercer's, Hay -- they're  
14 steady, they're reliable, they're apples-to-apples in  
15 terms of comparison. And so what we find is that  
16 there's a lesser degree of volatility, and that we can  
17 better interpret and relate that information back to  
18 B.C. Hydro.

19 But I'd like to go back to one of your  
20 points with regards to how we look at that data. So  
21 if you come back to the fact that we choose to compete  
22 at the 50<sup>th</sup> percentile, so when you take a look at a  
23 company that has their, as you say, revenue for risk,  
24 in that there's a greater volatility for risk, we're  
25 not looking to compete at the 75<sup>th</sup> percentile, and  
26 we're also -- we look to compete at the 50<sup>th</sup>

1 percentile. And the reason that we do that is that,  
2 as a Crown corporation, the kind of -- the quality of  
3 person that we need to attract has to be the -- has to  
4 be of the caliber that we need to run the kind of  
5 organization that we have. So in terms of the  
6 comparator groups that we go to, we have to go to data  
7 that actually is where we would attract or compete to  
8 the marketplace.

9 But having said that, when we put our total  
10 compensation together, we look at it as the 50<sup>th</sup>  
11 percentile. We're not looking to compete with the oil  
12 patch in Calgary, but what we're trying to do is make  
13 sure that we've got the right overall total  
14 compensation package to compete where we should be  
15 roughly to market.

16 **Proceeding Time 9:53 a.m. T13**

17 COMMISSIONER MILBOURNE: Okay. I'd like to switch gears  
18 here a bit. A subject that came up a fair bit  
19 yesterday was the notion of FTEs versus head counts  
20 and so on and so forth, and I don't want to beat that  
21 to death for any particular reason. But what did  
22 interest me, and I found this number in -- I think it  
23 was BCUC 1.55.1 revised, and you don't have to go  
24 there. But it indicated that your criteria for  
25 defining an FTE is a 1537.5 hours per year. So you  
26 can verify that if you want, but that's the number I

1 wrote down.

2 MS. NAGLE: A: It is correct.

3 COMMISSIONER MILBOURNE: And I guess I'm probably dating  
4 myself here and it wouldn't be the first time, but if  
5 I take a basic employment situation -- and I say  
6 probably dated, but if I look at kind of a person who  
7 works eight hours a day, 50 weeks a year, two weeks  
8 vacation and eight stat holidays, that comes out to  
9 about 242 days a year of employment. If I divide your  
10 1537.5 by 8, I get 192 days on the same basis.  
11 Because I'm trying to understand how does 192 days  
12 equivalent eight-hour days of employment relate to a  
13 full-time employee as I would define them, that has to  
14 work 242 days? How do I bridge that gap?

15 Just to put it another way, the inverse  
16 would be that you'd be working 6.4 hours per day and  
17 you'd be an FTE of B.C. Hydro, okay?

18 MS. NAGLE: A: So there's one piece I'd like to just  
19 confirm for one moment.

20 COMMISSIONER MILBOURNE: Mm-hmm.

21 MS. NAGLE: A: Because I don't have the historical  
22 context.

23 Historical piece that I was wanting to  
24 double-check. So the historical calculation from a  
25 Hydro perspective has always been based on a seven and  
26 a half hour work day. And so yes, it is less

1 statutory holidays, vacation, other time off  
2 provisions that would have been negotiated through a  
3 collective agreement process and/or on the management  
4 and exempt side of things. So that is how that  
5 calculation is derived at. I don't personally know  
6 that the 1537, in terms of how it is built up, but it  
7 is based on that calculation.

8 COMMISSIONER MILBOURNE: Would you not agree with me that  
9 doesn't seem to be very many hours of work in a year,  
10 in a full year of employment?

11 **Proceeding Time 9:58 a.m. T14**

12 MS. NAGLE: A: What's probably missing in that picture,  
13 and it's actually noted in one of the IRs with regards  
14 to overtime is, is -- particularly from the management  
15 side of things, is that management doesn't generally  
16 record any overtime. So when you take a look at the  
17 actual hours worked as opposed to this calculation,  
18 there's probably a lot more that are actually worked.  
19 What I can speak to is to the historical calculations  
20 as to how this is built up, but the calculation is  
21 what it is in terms of historical formulation.

22 But we have actually spoken to, in one of  
23 the other IRs, with regards to how overtime is  
24 calculated, and management and exempt in particular,  
25 which is a large group within the organization, does  
26 not particularly record a whole lot of overtime, in

1 terms of what is claimed. And so it's certainly not a  
2 reflection necessarily as to what people actually  
3 work, and I would venture to say that that's -- it's  
4 just probably not an actual reflection of the hours  
5 worked, necessarily.

6 COMMISSIONER MILBOURNE: Okay, thank you. I would expect  
7 that organization like B.C. Hydro invests a fair bit  
8 in what I would call "employee development". And  
9 we've heard some discussion around that with respect  
10 to some of these work force strategic initiatives and  
11 so on. And what I wanted to understand was, do you  
12 have practices of kind of sending people off for  
13 specialized education and training at the senior  
14 levels?

15 MS. NAGLE: A: There isn't -- on a very rare occasion  
16 we might do that, but not -- it is not a consistent  
17 practice. I myself cannot list somebody who's gone on  
18 for that kind of development. But it's not to say  
19 that it doesn't happen in terms of certain types of  
20 programs. It's just not a common occurrence.

21 COMMISSIONER MILBOURNE: So you don't have -- again, I  
22 don't want to put words in your mouth, but you don't  
23 have a practice of sending five or six or ten or  
24 twenty so-called high identified -- high-profile,  
25 high-potential people off for, I'll call them  
26 executive MBAs, or this kind of stuff?

1 MS. NAGLE: A: Again, I'll just double --

2 COMMISSIONER MILBOURNE: Sure, go ahead.

3 MS. NAGLE: A: It is rare. I guess what I'm saying is,  
4 I would be hesitant to say that it doesn't happen, but  
5 amongst the panel, there isn't one that is  
6 particularly -- that comes to mind with regards to an  
7 EMBA or that kind of a program. So, it's not to say  
8 that it doesn't happen, it's just not something that  
9 we generally would support.

10 COMMISSIONER MILBOURNE: Well, let me be a little more  
11 clear. Like, all sorts of different business schools  
12 and so on offer these kind of one-, two-, six-, eight-  
13 week management, intensive management programs, right?  
14 That kind of -- some of them go on for 12 weeks, 14  
15 weeks, they go to -- it's that kind of program I'm  
16 addressing.

17 MS. NAGLE: A: Okay, thank you.

18 COMMISSIONER MILBOURNE: Okay? Not four years of part-  
19 time MBA programs.

20 MS. NAGLE: A: Okay.

21 MR. STEWART: A: Perhaps I can answer this question. I  
22 go back a little farther than my two colleagues here.  
23 But ten, fifteen years ago, it was reasonably common  
24 practice to go for the MBAs and have five or six  
25 people go. We made a deliberate decision to stop  
26 doing that, and actually developed our leadership

1 programs within B.C. Hydro to make it more efficient,  
2 make it tailored more to B.C. Hydro. And so we  
3 discontinued that practice.

4 So there may be from time to time a single  
5 person for some very good reason may go, but it's very  
6 very rare today.

7 **Proceeding Time 10:03 a.m. T15**

8 COMMISSIONER MILBOURNE: Okay, I'm going to come back to  
9 that. When you do send people off on -- give people  
10 the opportunity to participate in those kind of  
11 activities, I assume you would recognize that that's a  
12 benefit to the person as well as to the organization.  
13 That if I have an MBA designation from some place like  
14 Harvard, I might be a little more marketable than my  
15 colleague who doesn't have one. So there's a kind of  
16 benefit in terms of ability to seek alternative  
17 employment and so on that comes to the participant.

18 So my question is, when B.C. Hydro does pay  
19 for people's personal development -- I'm not  
20 questioning whether or not you should or shouldn't do  
21 this. Is there a *quid pro quo* that the person who's  
22 going to be the beneficiary has to agree to a minimum  
23 of post-upgrading employment? In other words, you're  
24 going -- to ask us to suspend belief here, you're  
25 going to send me for an executive MBA. Are you going  
26 to ask me to say, well, you're not going to leave for

1 three years if we do that?

2 MR. STEWART: A: So I can give you one example from my  
3 group. There is a person taking emergency  
4 preparedness training and we are paying 50 percent and  
5 we're binding them into a two-year minimum stay after  
6 they finish. So that's one example.

7 COMMISSIONER MILBOURNE: You're doing that?

8 MR. STEWART: A: Yes.

9 COMMISSIONER MILBOURNE: Right. I'm asking is there a  
10 policy of doing that?

11 MS. NAGLE: A: We're actually just in the process of  
12 updating our policy in this regard, so it's not yet  
13 complete, and the two things that we would be  
14 contemplating is that if we do sponsor -- and the  
15 kinds of dollars that we're looking at are much lower  
16 than that. They're, you know, a course or a program  
17 that you might take that's local. And the examples  
18 that we're talking about within this policy are more  
19 of, you know, the thousand dollar to two or three  
20 thousand dollar course range. And you can do one of  
21 two things or both. You can actually say you have to  
22 stay within a period of two, three or four years post-  
23 completion of the course, and you have to pay them  
24 back. And these are some of the things that we're  
25 actually working on with this draft policy, but it's  
26 not complete. It was just started over the course of

1 the summer. But we are working on a policy just for  
2 general tuition and education support.

3 COMMISSIONER MILBOURNE: Okay, coming back to my  
4 question, and again this is directed principally  
5 towards what I would call the general management or  
6 people who are being groomed as general managers and  
7 up level, could you have a quick look at see over the  
8 course of the last three years up to date, how many  
9 people you've sent on that kind of exercise?

10 MS. NAGLE: A: Could you define the exercise that  
11 you're looking for?

12 COMMISSIONER MILBOURNE: Specific management, external  
13 management training programs that involve one week or  
14 more away from the job, that are presented by a  
15 reputable business school.

16 MR. CHRISTIAN: Yes, absolutely.

17 **Information Request**

18 COMMISSIONER MILBOURNE: And could you tell me as well,  
19 and it doesn't have to be to four decimal places, the  
20 cost of that inclusive of the time equivalent  
21 employment cost for when they're away. In other words  
22 you're sending me away for six weeks, okay? So I get  
23 six weeks of salary plus the cost of the course, the  
24 housing, the whole shebang. So I'd just like to again  
25 have a sense of how much of that's going on.

26 MR. CHRISTIAN: Yes, I understand and we'll provide that.

1 COMMISSIONER MILBOURNE: I'm trying to be specific in my  
2 questions here.

3 **Information Request**

4 COMMISSIONER MILBOURNE: My last question is kind of a  
5 housekeeping item. On your ticketed professionals, is  
6 it B.C. Hydro's practice to pay their professional  
7 fees?

8 MS. NAGLE: A: So again, when you refer to a ticketed  
9 professional, are you talking about a CMA/CGA/CA?

10 COMMISSIONER MILBOURNE: A professional engineer.

11 MS. NAGLE: A: A professional engineer?

12 COMMISSIONER MILBOURNE: Lawyer. Where I have to belong  
13 to a professional association in order to practise.

14 MS. NAGLE: A: So my understanding of that would be, if  
15 it's a required part of the job that you were doing,  
16 then, yes, we would pay for that. So if the job  
17 bulletin says that you must be a CA/CGA/CMA, we would  
18 pay for that.

19 **Proceeding Time 10:09 a.m. T16**

20 COMMISSIONER MILBOURNE: So you do pay your  
21 professionals' professional fees.

22 MS. NAGLE: A: If it's a required part of their job to  
23 keep their designation.

24 COMMISSIONER MILBOURNE: Okay, thank you. Those are my  
25 questions.

26 THE CHAIRPERSON: Good morning, panel. Most of my

1 questions have already been answered through yesterday  
2 and this morning, so I just have a few, very much  
3 clarification questions.

4 First one comes back once more to the FTEs,  
5 Ms. Nagle. Yesterday you indicated quite clearly that  
6 budgeting is based on FTEs. And when you do that  
7 budgeting process, that always assumes, then, that  
8 those positions are filled in for the year.

9 MS. NAGLE: A: It's assumed that they're filled over  
10 the course of the year.

11 THE CHAIRPERSON: Over the course of the year.

12 MS. NAGLE: A: Mm-hmm.

13 THE CHAIRPERSON: So, I just want to make sure that I  
14 fully understand. Again, in the Appendix C where we  
15 talked about -- of the application where you talked  
16 about the service plan, one of the performance  
17 measures is the vacancy rate, and target being, for  
18 instance, for F2008/09, it would be 9.9 percent. And  
19 target for F2009/10 is 9.6 percent. And is it correct  
20 that this rate that is stated there as a target is as  
21 a performance indicator? It seems just to measure how  
22 good B.C. Hydro is in terms of people, management  
23 between -- as an employer, in terms of employee morale  
24 and so on.

25 So that has nothing to do with budgeting  
26 and accounting. It's simply a performance measure

1 from the performance management point of view.

2 MS. NAGLE: A: It is -- yes, it's more tied to that  
3 side of things. If we have -- because if we don't  
4 fill the vacancy we'll actually use other contractors,  
5 consultants. We'll still try to get that work done  
6 through another means. So the vacancy rate is tied  
7 more to our overall -- just the overall effectiveness  
8 of our ability to run the business, and morale, and it  
9 makes good business sense to make sure that those  
10 vacancies are kept at a reasonable amount.

11 THE CHAIRPERSON: So one way to try to link this, let's  
12 say, 9.9 percent to the FTEs that were the basis  
13 providing the employment costs for F2009, is it fair  
14 to say that the salary forecast for this year is  
15 really 9.9 percent less than it would be if you had  
16 budgeted everything without the -- assuming the 9.9  
17 percent vacancy rate throughout the year, on an  
18 average? It's roughly about that, to get an -- a  
19 picture there.

20 MS. NAGLE: A: So, the budgets are based on -- if we go  
21 back to what the FTE amount is, the budgets are based  
22 on FTEs.

23 THE CHAIRPERSON: Right.

24 MS. NAGLE: A: Whatever the head count is, which is  
25 always lower than what the FTE is, what we would then  
26 use is overtime or consultants or contractors, to get



1           have to increase your consulting dollars or your  
2           contractor dollars, or you'd always have to set aside  
3           overtime dollars. Because what I was trying to  
4           explain yesterday is that the FTE is the equivalent of  
5           the number of full-time employees that we would have  
6           to have, assuming that there was no overtime.

7   THE CHAIRPERSON: All right, so are you then telling me,  
8           Ms. Nagle, actually the answer is the opposite? The  
9           overall cost -- the work at Hydro that will have to be  
10          done, let's say if 2009 really is assuming always  
11          every position is full.

12   MS. NAGLE: A: It's the 6100. It's the -- pardon me,  
13          it's the FTE equivalent. So if you take a look at  
14          fiscal 2010 -- just let me grab my numbers here.

15                        So if we look at fiscal 2009 for plan for  
16          this year for full-time equivalence, based on the  
17          service plan, we've said that we need 5,974 full-time  
18          equivalents. So that is the work to be done and  
19          that's what drives the budgets.

20                        Now, if we have a higher or lower number of  
21          vacancies, if people actually plan to do that work,  
22          the additional work will either be done in overtime or  
23          it will be done using contractors or consultants. So  
24          you might be under with regards to what your budgeted  
25          employee costs are, but then presuming that that's the  
26          case your contractor and consultant dollars would be

1 going correspondingly up because we've determined that  
2 we need the equivalent of 5,974 people. And again, if  
3 that were to be the case, they wouldn't be working  
4 overtime. But what I'm saying is that it would just  
5 go to another cost area. If you have vacancies it's  
6 going to go another cost area.

7 THE CHAIRPERSON: All right, so investors -- coming back  
8 were I guess we started, the vacancy rate as a  
9 performance measure, it's on their own for different  
10 purposes there.

11 MS. NAGLE: A: Absolutely. Thank you, yes.

12 THE CHAIRPERSON: Thank you. Then following up on the  
13 questions and answers dialogue that went on with  
14 Commissioner Milbourne, this incentive pay, and we  
15 started again this dialogue yesterday. We talked  
16 about productivity, performance criteria, performance  
17 management, individual performance goals. And then  
18 what triggered my question was again one of the IRs  
19 which was the -- in Exhibit B-5, the BCUC IR 1.41.1.  
20 And there we have the dollar amounts for variable pay  
21 and gain sharing from F2004 to F2007 for different  
22 groups.

23 And perhaps just to complete the record in  
24 this whole area, I would still like to give you  
25 another undertaking and I think it would be really  
26 helpful to make sure we all understand how this

1 incentive pay works and ends up in the dollars that  
2 the ratepayers will be paying. If we could have  
3 samples for -- and let's take the case being this  
4 F2009 which is happening right now; samples for gain  
5 sharing and performance goals. So the person, which I  
6 now understood is of course the combination of  
7 individual and corporate performance of these  
8 performance goals, like one sample each level.  
9 Executive level, then other management and exempt,  
10 management and professional, IBEW, and COPE.

11 **Proceeding Time 10:18 a.m. T18**

12 I think if we would have, like, the sample  
13 for each -- I don't think there would be any  
14 confidentiality, because it's just a standard sample  
15 for each group, and having that kind of a sample for  
16 each area would be quite helpful.

17 Is that doable without a huge amount of  
18 work?

19 MR. CHRISTIAN: So, are we looking actually for samples  
20 of the performance pay contracts that individual  
21 employees in those classes would have. or more of a  
22 summary of what a typical employee in each of those  
23 classes would get for base pay, and then performance  
24 pay on an actual basis for some of their -- I mean, we  
25 could do both, I suppose. But I wasn't clear if you  
26 had one of those particularly in mind, or --

1 THE CHAIRPERSON: So, I'm not interested in dollars.  
2 It's more the goals, what they are -- like, on a  
3 personal level, let's take somebody in Mr. Stewart's  
4 group. The performance goals, as they link to safety,  
5 and other areas, in that business group, and then also  
6 at the same time there are the corporate objectives as  
7 well.

8 MS. NAGLE: A: It's sample performance plans.

9 THE CHAIRPERSON: Yes.

10 MS. NAGLE: A: Yes.

11 MR. CHRISTIAN: Yeah, we can do that.

12 **Information Request**

13 THE CHAIRPERSON: Okay, thank you. And then I would  
14 still, once more, like to return to what seems to be a  
15 favourite, of the donations, Ms. Yurkovich. First, as  
16 to -- coming back to a couple of answers you gave to  
17 Commissioner Milbourne, you were explaining, for  
18 instance, that the donations will be really helpful.  
19 I presume, certainly, in certain communities, you can  
20 use it for operations and communications purposes.  
21 But wouldn't that type of activity be just part of  
22 your ongoing operations and communications budget?  
23 Why would you have to have a special donation for that  
24 type of activity?

25 MS. YURKOVICH: A: Well, it is an ongoing thing,  
26 because you build and maintain public support over a

1 long period of time. So, we believe it's in our  
2 interest to be able to maintain those relationships  
3 over a long period of time, because we are an entity  
4 that operates on a public resource and our assets are  
5 not movable. So, building and maintaining those  
6 relationships over time is very important for us.

7 THE CHAIRPERSON: And you believe that you need no  
8 donation -- specific donations to support certain  
9 groups, as opposed to just doing your regular  
10 operations and activities, that also can be a part of  
11 communications, or your communications, just doing  
12 communications.

13 MS. YURKOVICH: A: I think it is a part of that,  
14 building our -- certainly we get consent to operate  
15 from the Commission. The way we use the term "consent  
16 to operate" internally is the need to have that kind  
17 of support to be able to undertake our activities.  
18 And it is a comprehensive effort, includes engaging  
19 our customers, engaging our communities over a long  
20 period of time, keeping them informed, and I think  
21 there is a growing -- the world has changed, and the  
22 public and customer expectations about our  
23 participation in the communities where we operate, I  
24 think, has grown dramatically over the last number of  
25 years. And I think there is an expectation that we  
26 are not just impacting the communities, but we are

1           also demonstrating that we are there for the long  
2           term, and contributing to those communities in some  
3           way, shape or form. And we do those donations to be  
4           able to build and maintain that relationship.

5                         We also do it, in some respects, to recruit  
6           and retain our people. Some of the things that we  
7           support, for instance, in our donations portfolio are  
8           scholarships, at about 19 institutions around the  
9           province of British Columbia. Can I guarantee that a  
10          person we provide a scholarship to comes back to B.C.  
11          Hydro? I can't draw that direct link, but I can know  
12          that if we create a scholarship in an area in the  
13          trades school where we incent someone to go to school,  
14          and they start their relationship with B.C. Hydro, we  
15          can track that person and try and bring them back into  
16          our organization, or into a trades trainee program, or  
17          into our apprenticeship program.

18                         So we use it in a couple of ways, but it is  
19          -- it helps us build and maintain good relations  
20          across the province and we believe that, frankly,  
21          helps us deliver our operations in a least-cost way  
22          over time.

23   **Proceeding Time 10:24 a.m. T19**

24   THE CHAIRPERSON:   Thank you, that's quite helpful, and I  
25                         think you partially already answered second part of  
26                         this question as well, because again, you earlier --

1 with Mr. Milbourne, Commissioner Milbourne, you talked  
2 about specific projects and how they -- you require,  
3 community and public engagement in certain community  
4 when you are going to do a new project. Because it's  
5 -- my question there was, any time you do a new  
6 project, you do public consultation, but doesn't that  
7 become then part of that project again? But you kind  
8 of explained earlier already how it is helpful to have  
9 that earlier engagement there.

10 But before we leave this, you know that  
11 BCTC also has a donation budget. Do you know how much  
12 that is?

13 MS. YURKOVICH: A: I believe that in their revenue  
14 requirement application they asked for \$500,000. I'm  
15 not sure whether the Commission granted that or not in  
16 its decision. I do -- I can tell you, though, that we  
17 make sure we have a process. The woman who manages  
18 our community investment process works very closely  
19 with BCTC to make sure that there is no duplication.  
20 We also have, as I mentioned yesterday, a system  
21 that's a grant stream system, where people apply on-  
22 line, because it makes it efficient and it allows us  
23 to capture all the information that we need.

24 We ask them when they apply whether they  
25 have also asked for funds from BCTC. That's one of  
26 the ways we make sure that we don't duplicate. And we

1 also have a quarterly call with BCTC to make sure that  
2 they know the activities we are undertaking, and we  
3 understand what their plans are.

4 THE CHAIRPERSON: Thank you. And I can confirm that the  
5 Commission approved that \$500,000 for BCTC.

6 MS. YURKOVICH: A: Thank you.

7 THE CHAIRPERSON: But again, I think, you anticipated my  
8 question there, Ms. Yurkovich, is that I certainly  
9 want to make -- well, the Commission Panel wants to  
10 make sure that you work closely with BCTC to ensure  
11 that, number one, there certainly is no duplication.  
12 But hopefully also you may find some synergies,  
13 because you are in the same communities, and BCTC is  
14 working on the assets that are owned by B.C. Hydro.

15 MS. YURKOVICH: A: Yes, I can confirm that we are  
16 tracking that very closely, and we will continue to do  
17 so.

18 THE CHAIRPERSON: Okay, thank you. Coming back to that  
19 \$1.2 million, do you have with you here that you could  
20 give us a sort of a rough breakdown, where it goes to  
21 -- you already mentioned scholarships, for instance.  
22 How much are the scholarships of that \$1.2 million?

23 MS. YURKOVICH: A: About \$100,000 of it is  
24 scholarships. I don't have a complete breakdown, but  
25 I can tell you some of the areas that we do, and if  
26 you needed a breakdown we are -- we do produce an

1 annual report that we provide to the communities that  
2 tracks exactly which programs, or which initiatives  
3 that we have undertaken in the year. That report is  
4 not ready yet. It will be in the next few weeks, and  
5 we will be making that public. But I could also  
6 provide to you a list of the initiatives that we  
7 supported in 2008, if you needed it for the purposes  
8 of the hearing.

9 THE CHAIRPERSON: I think we would appreciate for the  
10 record, for the rate --

11 MS. YURKOVICH: A: Yes, I'd be happy to provide that.

12 MR. CHRISTIAN: Yes.

13 **Information Request**

14 THE CHAIRPERSON: Thank you. I have no other questions  
15 -- no further questions.

16 So, Mr. Christian, do you have any -- a  
17 follow-up question by Commissioner Rhodes.

18 COMMISSIONER RHODES: I just have a couple of areas that  
19 I was -- just a little bit more clarification. When  
20 you're taking about -- Ms. Nagle, when you're talking  
21 about the 50<sup>th</sup> percentile, what goes into it? Like, is  
22 it salary, does it include pensions, does it include  
23 vacations and --

24 MS. NAGLE: A: Absolutely. It's in -- it's reflective  
25 of total compensation.

26 COMMISSIONER RHODES: Okay. And my other question was,

1 I'm -- I think maybe Ms. Yurkovich, we were talking  
2 about who was taking overtime, or was it Ms. Nagle?  
3 Anyway, you said that the management and professional  
4 staff tends to not claim very much overtime. Can they  
5 claim overtime?

6 MS. NAGLE: A: For the employees that are in the field,  
7 so, for example -- a good example, when a manager in  
8 the field would be attracting overtime, if there was  
9 an emergency situation, like the storm season, when  
10 they're out there at the same time along with a lot of  
11 the crews and whatnot, and they're required to be  
12 there on-site, on the job, supervising, directing the  
13 work, that would be the kinds of examples to which we  
14 would pay them for their time worked that day that was  
15 in excess of their regular hours.

16 COMMISSIONER RHODES: Is there, like, a written policy  
17 about that?

18 MS. NAGLE: A: There is a written policy that explains  
19 who's entitled to that. It's in one of our guidelines  
20 for overtime.

21 COMMISSIONER RHODES: Do you think we could get the  
22 guidelines for overtime?

23 MR. CHRISTIAN: Yes.

24 **Information Request**

25 COMMISSIONER RHODES: Thank you. That's all, thank you.

26 THE CHAIRPERSON: Any re-direct, Mr. Christian?



1 MS. NAGLE: A: Dawn held our senior vice-president of  
2 engineering and environment and it's the same role  
3 that Chris O'Riley holds right now, so engineering,  
4 aboriginal and generation, aboriginal relations and  
5 generation. And Alister was our chief financial  
6 officer and senior VP. And Hugo Shaw was our director  
7 of Site C.

8 MR. CHRISTIAN: Q: Right, thank you. Those are my  
9 questions.

10 THE CHAIRPERSON: Thank you, panel, you are excused. And  
11 it's a good time then for us to have our 15-minute  
12 morning break. And in the meantime, Mr. Christian, I  
13 guess you can get your next panel set up here.

14 MR. CHRISTIAN: Thank you, Madam Chair.

15 THE CHAIRPERSON: Thank you.

16 (PANEL ASIDE)

17 (PROCEEDINGS ADJOURNED AT 10:31 A.M.)

18 (PROCEEDINGS RESUMED AT 10:46 A.M.) T21/22

19 THE CHAIRPERSON: Please be seated.

20 MR. CHRISTIAN: So, thank you, Madam Chair. I've got my  
21 witness panel here, number four, up as you can see.  
22 Before I introduce them and have them affirmed, I  
23 thought I might take the opportunity to file some  
24 undertakings, the ones I mentioned this morning that  
25 were the subject of our photocopier issuer.

26 THE CHAIRPERSON: Now, photocopier is working.

1 MR. CHRISTIAN: Exactly. So, the first one would be  
2 Exhibit B-46. It's a response to a question asked by  
3 Ms. Worth on behalf of the BCOAPO, and she asked us to  
4 update Tables 5 and 6 of Exhibit B-10 to incorporate  
5 the effects of the recent residential inclining block  
6 rate decision. Again, that's B-46.

7 THE HEARING OFFICER: B-46.

8 (RESPONSE TO B.C. HYDRO UNDERTAKING NO. 11, RE. VOLUME  
9 5, PAGE 711, LINES 3 TO 13, MARKED AS EXHIBIT B-46)

10 MR. CHRISTIAN: The next one I have to file here is --  
11 it's actually two questions we got worked into one  
12 undertaking response. It's questions from Mr. Wait.  
13 He asked about the "other income" line item in the  
14 October evidentiary update. That's at Schedule 8 and  
15 line 52 of that, of Appendix 1 of the October  
16 evidentiary update, and he asked us to provide  
17 components of other income, and also to explain why  
18 B.C. Hydro enters into swap agreements. And so the  
19 response to those two queries is Exhibit B-47.

20 THE HEARING OFFICER: Exhibit B-47.

21 (RESPONSE TO B.C. HYDRO UNDERTAKING NO. 18, RE. VOLUME  
22 6, PAGE 898, LINES 9 TO 26 TO PAGE 899, LINES 1 AND 2,  
23 MARKED AS EXHIBIT B-47)

24 MR. CHRISTIAN: And the next undertaking response we have  
25 to file here arises in response to a question posed by  
26 yourself, Madam Chair. That was at Volume 6 of the

1 transcript, page 947, and you enquired as to the cost  
2 of the PricewaterhouseCoopers study that was provided  
3 in response to BCUC IR 1.27.1. And this will be  
4 Exhibit B-48.

5 THE HEARING OFFICER: B-48.

6 (RESPONSE TO B.C. HYDRO UNDERTAKING NO. 23, RE. VOLUME  
7 6, PAGE 947, LINES 19 TO 26 TO PAGE 948, LINES 1 TO  
8 25, MARKED AS EXHIBIT B-48)

9 MR. CHRISTIAN: The last one I have this morning arises  
10 from an exchange between Mr. Weafer and Mr. Stewart on  
11 Panel 3, and it was a series of questions that was  
12 aimed at the relative timing of the budgets for which  
13 Mr. Stewart is responsible in his organizational  
14 business unit, and the shareholder letter of  
15 expectations which you recall was dated April 18<sup>th</sup>,  
16 2008. And so the response to that query is Exhibit B-  
17 49.

18 THE HEARING OFFICER: Exhibit B-49.

19 (RESPONSE TO B.C. HYDRO UNDERTAKING NO. 42, RE. VOLUME  
20 8, PAGE 1236, LINES 23 TO 26 TO PAGE 1237, LINES 1 TO  
21 11, MARKED AS EXHIBIT B-49)

22 MR. CHRISTIAN: And that concludes my filings. And I'm  
23 now prepared to introduce B.C. Hydro's fourth witness  
24 panel.

25 Proceeding Time 10:50 a.m. T23

26 THE CHAIRPERSON: Thank you, Mr. Christian.

1 MR. CHRISTIAN: This panel is chaired by Mr. Tony Morris.  
2 He's a strategic procurement officer with B.C. Hydro  
3 and he's primarily responsible for addressing  
4 questions related to the procurement enhancement  
5 initiative.

6 On Mr. Morris's immediate right is Mr.  
7 Allan Leonard. He's the director of strategic  
8 partnerships and he's primarily responsible for  
9 answering questions with respect to B.C. Hydro's  
10 relationship with Accenture and the Accenture  
11 arrangements.

12 On Mr. Leonard's right is Mr. Don Stuckert,  
13 vice-president and chief information officer of B.C.  
14 Hydro, and Mr. Stuckert is here primarily to address  
15 questions with respect to B.C. Hydro's IT plans,  
16 information technology plans.

17 And back to Mr. Morris and on his immediate  
18 left -- on his immediate left I should say, Mr. Aki  
19 Lintunen. He's director of properties at B.C. Hydro  
20 and he's here to answer questions with respect to B.C.  
21 Hydro's properties, plans and budgets and initiatives.

22 And with that, if I could have the  
23 witnesses affirmed, please.

24 **B.C. HYDRO PROCUREMENT, ACCENTURE, IT**  
25 **AND PROPERTIES - PANEL 4**  
26 **TONY MORRIS, Affirmed:**

1 ALLAN LEONARD, Affirmed:

2 DON STUCKERT, Affirmed:

3 AKI LINTUNEN, Affirmed:

4 MR. CHRISTIAN: Thank you and I'll now have each of the  
5 witnesses adopt, and with changes as necessary, their  
6 direct testimony. Those are all filed as part of  
7 Exhibit B-21.

8 EXAMINATION IN CHIEF BY MR. CHRISTIAN:

9 MR. CHRISTIAN: Q: Mr. Stuckert, I'll start with you.  
10 If you could turn to your direct testimony please.

11 MR. STUCKERT: A: Yes.

12 MR. CHRISTIAN: Q: Do you have any changes you'd like  
13 to make to your direct testimony?

14 MR. STUCKERT: A: Yes, I have a small correction with  
15 question 4 related to my time as director of  
16 technology for the 2010 Winter Games bid. I was  
17 actually employed between 1999 and 2003, not 2203 as  
18 shown.

19 MR. CHRISTIAN: Q: Thank you.

20 THE CHAIRPERSON: Good correction.

21 MR. CHRISTIAN: Q: And with that change do you adopt  
22 your direct testimony in this proceeding?

23 MR. STUCKERT: A: I do.

24 MR. CHRISTIAN: Q: Thank you. Mr. Leonard, do you have  
25 your direct testimony before you?

26 MR. LEONARD: A: I do.

1 MR. CHRISTIAN: Q: Do you have any changes you'd like  
2 to make to that at this time?  
3 MR. LEONARD: A: No, I don't.  
4 MR. CHRISTIAN: Q: And do you adopt that as your  
5 testimony in this proceeding?  
6 MR. LEONARD: A: I do.  
7 MR. CHRISTIAN: Q: Thank you. Mr. Morris, do you have  
8 your direct testimony?  
9 MR. MORRIS: A: Yes, I do.  
10 MR. CHRISTIAN: Q: And do you have any changes you'd  
11 like to make to it?  
12 MR. MORRIS: A: No.  
13 MR. CHRISTIAN: Q: And do you adopt it as your  
14 testimony in this proceeding?  
15 MR. MORRIS: A: Yes.  
16 MR. CHRISTIAN: Q: Thank you. Mr. Lintunen, do you  
17 have your direct testimony before you?  
18 MR. LINTUNEN: A: Yes, I do.  
19 MR. CHRISTIAN: Q: And do you have any changes you'd  
20 like to make to it?  
21 MR. LINTUNEN: A: No, I don't.  
22 MR. CHRISTIAN: Q: And you adopt it in this proceeding?  
23 MR. LINTUNEN: A: Yes, I do.  
24 MR. CHRISTIAN: Q: Thank you very much. And that makes  
25 the panel available for cross-examination.  
26 THE CHAIRPERSON: Mr. Fulton, sir, do you have the number

1 of people, list of people doing cross-examination for  
2 the panel?

3 **Proceeding Time 10:53 a.m. T24**

4 MR. FULTON: I do, Madam Chair, and I have an order of  
5 cross-examination in the usual form for you, but for  
6 this panel. The cross-examining parties will be the  
7 JIESC, Commercial Energy Consumers' Association of  
8 B.C., Canadian Office and Professional Employees'  
9 Union, and myself. And in -- as a follow-up to the  
10 discussion yesterday, COPE will examine after me,  
11 because otherwise we won't be able to -- we'll have a  
12 fair amount of down time today if I don't start my  
13 cross-examination, and I may be able to complete it  
14 today, I may not. But in any event, the order will be  
15 JIESC, CEC, Commission counsel, followed by COPE.

16 THE CHAIRPERSON: Thank you, Mr. Fulton. Now, we then  
17 start with JIESC, Mr. Wallace.

18 MR. WALLACE: Q: Thank you, Madam Chair.

19 **CROSS-EXAMINATION BY MR. WALLACE:**

20 MR. WALLACE: Q: Mr. Morris, I suspect most of my  
21 questions are directed to you, but if there's anybody  
22 else on the panel they should be directed to, by all  
23 means let me know.

24 MR. MORRIS: A: Okay, thank you.

25 MR. WALLACE: Q: I will be looking at the procurement  
26 enhancement initiative throughout my questions, I

1 believe, although obviously there's some related  
2 matters.

3 First, just by way of general background,  
4 this is a major project with costs of approximately  
5 \$36.4 million?

6 MR. MORRIS: A: Overall that would be correct, yes.

7 MR. WALLACE: Q: And it is not subject to a CPCN  
8 review.

9 MR. MORRIS: A: Not that I'm aware of.

10 MR. WALLACE: Q: And that's because it's below the \$50  
11 million threshold?

12 MR. CHRISTIAN: Well, with respect, there is no CPCN \$50  
13 million threshold that's applicable to B.C. Hydro, so,  
14 I can either ask my friend to re-phrase the question,  
15 or I can put Hydro's view of what its commitments are  
16 with respect to capital projects and Commission review  
17 of them.

18 MR. WALLACE: That would be helpful, if you put the view,  
19 actually. Seeing as you volunteered.

20 MR. CHRISTIAN: Well, it's set out in the negotiated  
21 settlement agreement that arose from the fiscal  
22 '07/fiscal '08 revenue requirement application. For  
23 projects that cost more than \$50 million dollars, the  
24 commitment that Hydro made was that it would seek a  
25 determination under provisions of the Act that the  
26 capital project and the expenditures thereto were in

1 the interests of Hydro's ratepayers. That's different  
2 from a CPCN application.

3 Now, those provisions of the Act have been  
4 repealed, but as I think Hydro said, it's continuing  
5 to abide by that spirit of that commitment and will be  
6 addressing more fulsomely what it can do in light of  
7 the amendments to the Act in the LTAP proceeding.  
8 But, to be clear, with respect to CPCN applications,  
9 there is no obligation on Hydro to file, except  
10 insofar as they arise under the Act on its terms, or  
11 by Commission Order.

12 MR. WALLACE: Okay. Thank you, that was actually  
13 helpful. I wasn't sure what the distinction was, and  
14 that is useful.

15 MR. WALLACE: Q: It's also a project that will affect  
16 most areas of B.C. Hydro, in that it's very broad-  
17 based?

18 MR. MORRIS: A: Yes, it will affect all areas of Hydro  
19 that purchase goods or services.

20 MR. WALLACE: Q: And it required Board approval before  
21 proceeding.

22 MR. MORRIS: A: That is correct.

23 MR. WALLACE: Q: And in -- you've attached a business  
24 case for it as part of Appendix H to the application?

25 **Proceeding Time 10:56 a.m. T25**

26 MR. MORRIS: A: Yes.

1 MR. WALLACE: Q: And would it be fair that that  
2 business case, or fair to suggest that that business  
3 case reflects the best of B.C. Hydro business  
4 practices and terms of a business case review?

5 MR. MORRIS: A: I think for a business case of this  
6 nature, the ones I am used to doing, this would be  
7 similar to what I would normally have done, yes.

8 MR. WALLACE: Q: Okay, thank you. Now, I'd like to get  
9 into a little more detail with it. The performance  
10 enhancement initiative replaces, as I understand, and  
11 enhances services performed in the past by Accenture?

12 MR. MORRIS: A: That is a small part of the project.  
13 The business case, which is entitled "The Procure to  
14 Pay Implementation Phase", is a follow-on from two  
15 previous phases. Those two previous phases were an  
16 assessment phase and a design phase, and the  
17 assessment phase looked at Hydro's broad procurement  
18 practices across the company. So it looked not just  
19 at, if you like, buying goods and service but it  
20 looked more high-level, more strategically about how  
21 we went about that. So it's a lot broader program  
22 than the services that are presently provided by  
23 Accenture.

24 MR. WALLACE: Q: And can you elaborate a bit on that?

25 MR. MORRIS: A: Certainly. The services that are  
26 presently provided by Accenture are more of a

1 transactional nature. B.C. Hydro at the present time  
2 has a decentralized purchasing process whereby the end  
3 users, i.e. the people who needed the goods and  
4 services, would request those goods and services  
5 through Accenture when they needed them. We have  
6 taken a look at -- and some of this is actually  
7 described in the business case. We have taken a look  
8 at the overall processes we have followed, and looked  
9 at how the business has changed over the last X number  
10 of years such that we need to kind of move from what I  
11 would describe as more of an ad hoc reactionary  
12 decentralized process through a far more strategic  
13 forward-looking process for overall procurement.

14 So we're really looking at kind of three  
15 main things. One is improving value, one is improving  
16 capacity, and the other is improving the controls over  
17 the procurement process.

18 MR. WALLACE: Q: Now, as I read the Appendix H  
19 document, the business case, I took that there were  
20 two aspects to the strategic sourcing and a procure to  
21 pay or P2P?

22 MR. MORRIS: A: That would be correct.

23 MR. WALLACE: Q: And strategic sourcing has already  
24 been implemented?

25 **Proceeding Time 11:00 a.m. T26**

26 MR. MORRIS: A: No, that's actually not correct. What

1 we've implemented or what we've done is what's called  
2 a pilot sourcing, and that commenced in the fall of  
3 2006, and we have undertaken a number of pilot  
4 sourcings with Accenture, and with the agreement with  
5 Accenture, we had an option, or an option to decide,  
6 based on those pilot sourcings, whether we would  
7 pursue strategic sourcing with Accenture or not. So  
8 we have not actually commenced strategic sourcing.

9 MR. WALLACE: Q: Okay. And you've expended about \$8  
10 million on strategic sourcing?

11 MR. MORRIS: A: I think that number is a little bit --  
12 that's somewhat high. It's -- can I ask where you got  
13 the \$8 million from?

14 MR. WALLACE: Q: Actually, I don't have a reference to  
15 it. I thought it was from the application.

16 MR. MORRIS: A: I think the \$8 million may be the  
17 amount we have in the business case for strap sourcing  
18 -- for strategic sourcing, through to the completion  
19 of it.

20 MR. WALLACE: Q: And that quite -- could well be the  
21 case. And the balance of the \$36.4 million is the  
22 procure-to-pay?

23 MR. MORRIS: A: That is correct.

24 MR. WALLACE: Q: And the total PEI, as I understand it,  
25 net of technology costs, is roughly \$28 to \$30  
26 million?

1 MR. MORRIS: A: If you look at the business case on  
2 page 16, that has some nominal values there for  
3 strategic sourcing and P2P, and that indicates that  
4 there's a total for assessment, design and  
5 implementation of \$28.4 million, which does actually  
6 include the technology costs.

7 MR. WALLACE: Q: Okay, actually maybe it would be  
8 helpful if we turned to that. That's Appendix H to  
9 the application.

10 MR. MORRIS: A: That is correct. Appendix H, page 16  
11 and 34.

12 MR. WALLACE: Q: Okay. And you've said \$28.4 million?

13 MR. MORRIS: A: That is correct.

14 MR. WALLACE: Q: And I'm just looking -- where on that  
15 page do I find that?

16 MR. MORRIS: A: Actually, if I can refer you to page 22  
17 rather than page 16, the totals are the same but page  
18 22 shows those costs split down between the types of  
19 costs. And there you'll see the technology, hardware  
20 and software costs of approximately \$3.4 million.

21 MR. WALLACE: Q: Okay. Now, I'm sorry, did you say the  
22 hardware and software are included there, the \$3.4  
23 million?

24 MR. MORRIS: A: That is correct.

25 MR. WALLACE: Q: Okay. I did -- I was going to come to  
26 it in a minute, but maybe while we're pointing to



1 MR. WALLACE: Q: And which is the more accurate number?

2 MR. MORRIS: A: The more accurate number at this point  
3 I think is the 3.4 million.

4 MR. WALLACE: Q: Thank you. And so if we take the 28.4  
5 million on page 22 of 34 in Appendix H, when you net  
6 that -- or take out the 3.4 for technology, you're  
7 still looking at \$25 million. And very hard from  
8 reading this to understand what exactly that covers.  
9 How do you spent \$25 million on doing a procurement  
10 enhancement initiative?

11 MR. MORRIS: A: Okay, the implementation is split down  
12 to the other costs. So as you can see on that  
13 schedule, we have external resources and internal  
14 resources to complete that. The big part of the  
15 project, and we talked earlier, this would affect  
16 pretty much everybody across Hydro who is involved in  
17 buying goods and services. So what we're essentially  
18 doing is changing the internal processes. And part of  
19 that processes is also the change that you need to  
20 get, and I think Mr. Elton referred to this on Panel  
21 1, in reflection of -- in relation to this initiative  
22 of the cultural change. And that is a big issue,  
23 because one of the things that we need to do is change  
24 the way that people acquire goods and services across  
25 the company.

26 I would say people are used to doing things

1 a certain way. Getting them to change the way they do  
2 that is going to take a significant effort in  
3 training, education, and -- training materials and  
4 those types of things. Designing the process is also  
5 a significant thing. At the present time we have  
6 somewhere upward of seven different processes  
7 throughout the company, so we've got to combine those  
8 processes into one process. That also requires  
9 changing policies that -- with seven processes,  
10 although at the highest level the policies are the  
11 same. As they get carried out at each individual  
12 office they can get carried out differently.

13 So it's critical that we get those policies  
14 set down and that we go through the necessary training  
15 and education to do that. So that is a big part of  
16 the effort.

17 MR. WALLACE: Q: But these costs only include the  
18 trainers. They don't include the employees coming in  
19 to be trained.

20 MR. MORRIS: A: That is correct.

21 MR. WALLACE: Q: And it just seems to me that's a huge  
22 amount of training. Now, how -- I guess -- well, I'll  
23 leave it at that.

24 I take it that the activities are really --  
25 that these costs involve changing the existing  
26 processes and rolling it out to the employees.

1 MR. MORRIS: A: That is correct.

2 MR. WALLACE: Q: And that it is Hydro's position that  
3 it will not result in any benefits to B.C. Hydro or  
4 any net benefits to B.C. Hydro during the test period.

5 MR. MORRIS: A: That is correct. If you look at the  
6 business case, we're forecasting those benefits to  
7 come in in 2011. And I think your point about net  
8 benefits is correct. As we just talked about  
9 training, training is an ongoing thing through to --  
10 through 2010. So I think there will be some benefits  
11 from the project but they expect -- we expect those to  
12 be basically offset by the additional effort to get  
13 people to follow the right policies as we go forward.  
14 Plus a number of transitional things as you change  
15 from one process to another.

16 MR. WALLACE: Q: Now, also added into this there --  
17 maybe not because it seemed relatively new.

18 **Proceeding Time 11:08 a.m. T28**

19 MR. WALLACE: Q: Now, also added into this there --  
20 maybe not because it seemed relatively new. There is  
21 the business case identifying 18 employees, and that's  
22 Appendix H, page 22 of 24, on the same page we're  
23 looking at, at some point. Can you --

24 MR. MORRIS: A: Correct, yes.

25 MR. WALLACE: Q: Now, at the point you were -- you  
26 filed the Appendix H, I thought you were intending to

1 carry on with Accenture doing the purchasing -- I  
2 guess what's called the "purchasing tower"? Is that  
3 correct?

4 MR. MORRIS: A: At that point, and it's referred to a  
5 number of times in the business case, no decision had  
6 been made as to whether we would continue with  
7 Accenture for the purchasing tower or not, and no  
8 decision actually had been made on the organization  
9 structure within B.C. Hydro, *post* the completion of  
10 this project.

11 MR. WALLACE: Q: Okay, so the 18 FTEs referred to in  
12 paragraph 7.4 are simply for realization and  
13 deployment and not for replacement of the purchasing  
14 tower?

15 MR. MORRIS: A: Actually, the 18 FTEs referred to in  
16 Section 7.4 are the internal resources that we  
17 estimated we would require to undertake that  
18 particular phase of the project. They're nothing to  
19 do with the ongoing procurement function.

20 MR. WALLACE: Q: Okay, thank you. Now, turning to the  
21 procurement tower, just so I understand where the two  
22 fit -- well, actually, sticking with this, but if you  
23 wish to raise the procurement tower in the same  
24 context. Prior to the decision to go to the -- or  
25 commence the performance enhancement initiative, and  
26 to take over the procurement tower, I got the

1 impression from the audits and BCUC IR 1.8.1,  
2 Attachment 36, I don't know that you need to turn to  
3 it, B5-1A --  
4 MR. MORRIS: A: Thank you.  
5 MR. WALLACE: Q: That there had been significant  
6 improvement in the management of at least major  
7 commodities since the last audit. Is that correct?  
8 MR. MORRIS: A: I think that is correct, yes. There  
9 have been improvements made.  
10 MR. WALLACE: Q: Okay. So do I take it that audit  
11 wasn't one of the driving forces?  
12 MR. MORRIS: A: I think one of the -- there were a  
13 number of audits that were part of the driving forces  
14 to this, and I think the audit you're referring to,  
15 and I haven't seen it, or I haven't seen it  
16 specifically here, is a follow-on audit from previous  
17 audits that were one of the drivers to the completion  
18 of this project.  
19 MR. WALLACE: Q: Okay. And the response to COPE filed  
20 on March 25<sup>th</sup>, and that's B-5, COPE 1.12.2, indicated  
21 satisfactory performance by Accenture. And again, I  
22 took that to be with the purchasing process. Can you  
23 confirm that?  
24 MR. MORRIS: A: Yes, I can confirm that.  
25 MR. WALLACE: Q: And I guess I'm wondering what  
26 happened between March 25<sup>th</sup> and, I think it's September

1 29<sup>th</sup>, when you filed Exhibit B-20.

2 MR. MORRIS: A: Okay. The question that we responded  
3 to on COPE 1.12.2, the one you just referred to, was  
4 whether we were satisfied with the procurement  
5 activities undertaken by ABSU, and we answered, as you  
6 just said, "Yes." The issues -- some of the issues  
7 driving the procure-to-pay business case, and the  
8 project, are to do with the processes that we have in  
9 place. So, ABSU carries out those processes under the  
10 direction of B.C. Hydro.

11 So, we were satisfied with the performance  
12 of ABSU in carrying out those processes, but the  
13 processes themselves need to be updated, need to be  
14 changed, need to be rationalized. So there's a -- I'm  
15 differentiating between the performance of ABSU and  
16 the processes underpinning those roles.

17 MR. WALLACE: Q: But those processes were the  
18 purchasing tower, effectively. Is that correct?

19 MR. MORRIS: A: Those processes are -- some of those  
20 processes are purchasing tower, some of those  
21 processes are outside the purchasing tower, because a  
22 lot of the processes are presently done by B.C. Hydro  
23 employees themselves, and as I mentioned before, under  
24 a de-centralized environment. So it's only once B.C.  
25 Hydro employees will contact ABSU that obviously ABSU  
26 can follow the processes that they're -- that they

1 have been provided to do.

2 MR. WALLACE: Q: Okay, and maybe for the record just  
3 because -- to set the context, and I could try, but I  
4 might not get it right. Can you indicate, just in  
5 general terms, the services provided by ABSU and  
6 particularly how the purchasing tower fits into that?

7 MR. MORRIS: A: Sorry, could you repeat the question,  
8 please?

9 MR. WALLACE: Q: Yeah. Just to set in background, can  
10 you give an overview of the services provided by ABSU  
11 and in particular how the purchasing tower fits into  
12 those services.

13 **Proceeding Time 11:14 a.m. T29**

14 MR. MORRIS: A: Okay, perhaps in the order of your  
15 question I'll ask Mr. Leonard to provide an overview  
16 of ABS, and then I can comment on the particular  
17 tower.

18 MR. LEONARD: A: So in relation to the purchasing  
19 services, ABS would sort of -- there's sort of two  
20 main areas. One is the issuing of purchasing orders  
21 and change orders. Another one is in the area of  
22 running and facilitating tenders, RF -- requests for  
23 proposals, requests for expression of interest. And  
24 then the last one would be is around IT acquisitions  
25 and customs and tracking. Those would be sort of the  
26 four main areas that Accenture provides in the

1 purchasing arena.

2 MR. WALLACE: Q: And how does the purchasing tower  
3 relate in terms of the total services provided to you  
4 by Accenture?

5 MR. LEONARD: A: Purchasing, the purchasing tower  
6 represents roughly about \$2.6 million in terms of  
7 expenditure, and it's roughly under two percent of our  
8 total expenditure with Accenture.

9 MR. WALLACE: Q: And just again, I take it that on  
10 September 29<sup>th</sup> Hydro made it clear to the Commission  
11 that it was intending to pull back the purchasing  
12 power financing and take it in house.

13 MR. LEONARD: A: Yes, that would be correct.

14 MR. WALLACE: Q: And how does that decision relate to  
15 the performance enhancement or -- yeah, performance  
16 enhancement initiative?

17 MR. MORRIS: A: Perhaps I should just clarify, it was  
18 not pulling back the services provided by Accenture.  
19 We're terminating the services provided by Accenture,  
20 and we'll be doing obviously procurement services, but  
21 the nature of those services will be different in line  
22 with the procure-to-pay project.

23 MR. WALLACE: Q: And will you be taking back, or taking  
24 -- if not back, taking employees from Accenture as  
25 part of that reassignment or redeployment of function?

26 MR. MORRIS: A: My understanding is that Accenture has

1           -- I'm not sure of the correct terminology, but given  
2           termination notice to their employees. B.C. Hydro is  
3           presently in the process of hiring a number of  
4           employees to fill the roles that we need going  
5           forward. Those bulletins, which is what we call them,  
6           have gone out internally to B.C. Hydro and they've  
7           gone out publicly in the marketplace. And I am aware  
8           that a number of Accenture employees have applied on  
9           those positions. We're presently going through the  
10          hiring process. So if they meet the relevant  
11          criteria, then we could be hiring some of those people  
12          who have applied.

13 MR. WALLACE:   Q:   Do you know how many employees  
14           Accenture was using in the purchasing tower?

15 MR. MORRIS:   A:   I don't. I have -- I mean, I  
16           understand that somewhere between 30 and 40, but I  
17           don't actually know the number because what we --  
18           we're acquiring the service, not the individuals.

19 MR. WALLACE:   Q:   And if I understand it correctly from  
20           Exhibit B-20, B.C. Hydro will be adding 27 FTEs when  
21           it takes over the purchasing function?

22 MR. MORRIS:   A:   That's our estimate at this point, so  
23           that may change a little bit. But we're looking at,  
24           yes, hiring approximately 27 additional people.

25 MR. WALLACE:   Q:   Okay, and that will be at a net  
26           increase in cost of about \$165,000 a year over ABSU?

1 MR. MORRIS: A: And I think you got that from the  
2 evidentiary update.

3 MR. WALLACE: Q: From Exhibit B-20.

4 MR. MORRIS: A: Yeah. In the evidentiary update, that  
5 165 comes from a budget for fiscal 2009. I would  
6 actually forecast at this point that it will actually,  
7 if you like, go the other way, not significantly,  
8 because of volumes that we're processing are going up,  
9 and the payments we make to Accenture are partially  
10 driven by volumes.

11 MR. WALLACE: Q: Okay, now the Accenture costs included  
12 infrastructure and overheads, I take it? That was the  
13 total cost to them for the purchasing function?

14 MR. LEONARD: A: The 2.6 million would be B.C. Hydro's  
15 cost and that's what we would pay, what we paid  
16 Accenture for the purchasing services.

17 MR. WALLACE: Q: Okay, does the estimate of the  
18 \$165,000 higher cost contained in Exhibit B-20 include  
19 overheads and infrastructure?

20 MR. MORRIS: A: Sorry, I'm just looking at the  
21 evidentiary update.

22 Okay. Obviously there are overhead costs  
23 related to the provision of services by Accenture, and  
24 there are also the overhead costs for B.C. Hydro  
25 related to similar services that we would provide.

26 My understanding is that, as part of the



1 MR. CHRISTIAN: Yeah, and maybe I can take the  
2 opportunity just to state what, you know, the  
3 confidentiality obligations are in the context of a  
4 regulatory proceeding. If a question is asked of B.C.  
5 Hydro that requires the disclosure of confidential  
6 information, that is confidential information as  
7 defined in the amended Master Services Agreement, B.C.  
8 Hydro is meant first to -- and required, indeed, to  
9 give notice to Accenture of the request. And second,  
10 to obtain advice of counsel as to whether or not the  
11 information requested should be provided. And then  
12 thirdly, follow the usual practice, assuming the first  
13 two steps have been taken, with respect to seeking  
14 confidential treatment.

15 So, we have to first of all ascertain  
16 whether the request requires us to even follow that  
17 process, and then if it does, we will be able to get  
18 back to the Commission in short order. Of course, you  
19 know, we anticipated that there may be these type of  
20 questions that require us to follow this, so I don't  
21 expect this to be a lengthy process, but we'll do what  
22 we can to get the information in as timely a way as we  
23 can.

24 MR. WALLACE: Q: Okay, that's satisfactory. And maybe  
25 if I can add to it a second question, which may assist  
26 just by aggregating sufficiently that confidentiality

1 does not become an issue, could you provide a  
2 comparison of the total cost of the purchasing tower  
3 under Accenture and the total costs of B.C. Hydro  
4 assuming those functions?

5 MR. CHRISTIAN: Yes, thank you, and that's a helpful  
6 clarification. That might make it easier for us to  
7 get over that confidentiality hurdle.

8 **Information Request**

9 MR. WALLACE: Hopefully I can have both, but if not, that  
10 may be a way of matching it.

11 MR. WALLACE: Q: I'd like to go back to the business  
12 case, then, and as I read the business case, there  
13 were three alternatives; *status quo*, quick wins, and  
14 implementation of P2P?

15 MR. MORRIS: A: That is correct.

16 MR. WALLACE: Q: And it seemed to me there were a  
17 couple of other alternatives, and I'm wondering if  
18 they were examined, or why they weren't, and the first  
19 one would be seeing what you could achieve for  
20 different levels of expenditure, say \$10 million, \$20  
21 million and \$28 million, and maybe pick off low-  
22 hanging fruit more efficiently than this project would  
23 appear to do.

24 MR. MORRIS: A: We did actually look at something like  
25 that as -- but the -- I think the decision that was  
26 made at the end of the day, based on the assessment

1 and design information we had, that really anything  
2 less than the full thing, you wouldn't get the  
3 benefits out of that. So --

4 MR. WALLACE: Q: That's not demonstrated in the  
5 business case, is it?

6 MR. MORRIS: A: That particular alternative, no, it's  
7 not.

8 MR. WALLACE: Q: Okay. And another alternative that I  
9 would have thought might be worthy of consideration  
10 that doesn't appear to be in the business case is  
11 using Accenture.

12 **Proceeding Time 11:24 a.m. T31**

13 MR. MORRIS: A: Yeah. And that -- I wouldn't say that  
14 was an alternative we looked at, except at a very high  
15 level. One of the things we wanted -- we want to do  
16 with this is, is move from a de-centralized process to  
17 a centre-led process, and that's where you get many of  
18 the benefits from. Also, changing the organization to  
19 move from end users who, in many cases, really have  
20 very little knowledge of purchasing and procurement to  
21 the use of purchasing professionals, and that's where  
22 we see most of the benefits coming from.

23 So, certainly I think we had a high-level  
24 look at whether that would be appropriate for  
25 Accenture to possibly provide those services, but we  
26 were also looking at procurement from a more strategic

1 point of view, which is having expertise within B.C.  
2 Hydro to move us forward, to look at it from a much  
3 longer-term perspective. And one of the big drivers  
4 of this initiative is improving our relationships with  
5 our suppliers. And we came to the conclusion that in  
6 order to do that, we need to be doing procurement  
7 ourselves, with the expertise in-house.

8 MR. WALLACE: Q: Okay, and again, none of that is set  
9 out in the business case, is it?

10 MR. MORRIS: A: That is correct.

11 MR. WALLACE: Q: Thank you.

12 MR. MORRIS: A: This -- I should add that the business  
13 case is for the implementation. As I mentioned  
14 before, there were two designs -- sorry, two previous  
15 phases, the assessment and design. And the item I  
16 just talked about was -- came out of the design phase.  
17 So at the end of the design phase, the decisions were  
18 made that we would -- from a strategic point of view,  
19 not necessarily the transactional point of view, from  
20 the strategic point of view, we needed to do supplier  
21 relationships -- supplier relationship in-house. So  
22 that's certainly one of the reasons it isn't shown  
23 here as an alternative.

24 MR. WALLACE: Q: And can you provide copies of the  
25 other two business cases, then?

26 MR. CHRISTIAN: I was about to say, "Absolutely, yes,"

1 but Mr. Morris is hesitating, so perhaps we could give  
2 him an opportunity to explain whether they're  
3 available or subject to any confidentiality issues.

4 MR. MORRIS: A: Sure. I don't think they're subject to  
5 any confidentiality issues. And what I was going to  
6 say is, I'm not sure business cases would actually  
7 help in what I think you're looking at. I think what  
8 -- perhaps if I can suggest what you're more  
9 interested in looking at is the results of that work  
10 that was done.

11 MR. WALLACE: Q: No, I'm interested in looking at a  
12 business case, as Hydro examines going about spending  
13 \$36 million, and you seem to be telling me that the  
14 business case that's here is not complete, that maybe  
15 there were some issues examined earlier that seemed to  
16 be logical and important alternatives, and if they  
17 are, I'd be quite happy to look at those business  
18 cases.

19 MR. MORRIS: A: That's fine, and we're happy to give  
20 you that information. What I'd like to add is, this  
21 is the business case for the spending of \$25 million,  
22 as discussed. The assessment design phase is worth  
23 significantly smaller -- I think the assessment phase  
24 was \$1.2 million, and the design phase was \$2.2  
25 million. So we don't have comprehensive business  
26 cases to justify the spending of that money, and the

1 reason for that is, we did this project specifically  
2 in phases, so we could stop at the end of particular  
3 points and re-assess whether it was worthwhile to  
4 proceed with the additional phases.

5 So, you're -- we can give you what I have,  
6 but it's not going to look like this.

7 MR. WALLACE: Q: Okay. That would be helpful. In any  
8 event, it will give us a complete picture. And just  
9 to be clear, this business case that's attached to --  
10 or is Appendix H, is the business case for spending  
11 the \$25 million here.

12 MR. MORRIS: A: That is correct.

13 MR. WALLACE: Q: Now, the difference between that \$25  
14 million and the total of \$36 million, where does  
15 authorization for the other \$11 million come in?

16 MR. MORRIS: A: Okay. If I can refer you back to page  
17 16 of Appendix H, and the table of the costs, which I  
18 know is one of the IRs that you asked for, we just  
19 talked about the assessment and design phase of \$3.4  
20 million. The \$25 million is the implementation phase,  
21 the subject of this business case. And the balance of  
22 8 million, which I think is where you got the \$8  
23 million from for strategic sourcing, is the contract  
24 that we had with Accenture in that regard. And the  
25 business case for that was -- my understanding is part  
26 of the AMIS agreement with Accenture.





1           that you haven't done.

2 MR. WALLACE:   Q:   Right.  But --

3 MR. MORRIS:   A:   So, you know, there could be perhaps  
4           100 different alternatives to get to the end result.  
5           We didn't look at every 100 alternatives.  We did an  
6           assessment and then it's like a pie.  If you start  
7           with a lot of options and then it comes down to a  
8           smaller number of options.

9 MR. WALLACE:   Q:   But you did in this, you did go  
10           forward and you did look at -- in putting it forward,  
11           quite properly as part of a business case, you  
12           discussed three different alternatives, status quo,  
13           quick wins, and implementation.  And I asked you about  
14           a couple of other alternatives which weren't here, and  
15           I got the impression they were considered elsewhere,  
16           and if so, I was inviting you to have the opportunity  
17           to put them forward if they were part of a prior  
18           business case.  If they're just simply excluded, I'm  
19           not concerned.

20 MR. MORRIS:   A:   Okay.

21 MR. WALLACE:   Q:   Okay, are we clear?  So you're going  
22           to go ahead and give me those two business cases and  
23           what you think is necessary to complete.

24 MR. MORRIS:   A:   They're not business cases but --

25 MR. CHRISTIAN:  I think we have enough to work with here.  
26           And if we don't, I'm sure Mr. Wallace will let me

1 know.

2 MR. MORRIS: A: I think we do too.

3 MR. WALLACE: Q: Okay, and I'm happy to take it at that  
4 and see what shows up. Thank you.

5 Okay. Now, in the procurement enhancement  
6 initiative benefits, you show three types of benefits,  
7 I take it, direct cost reductions, productivity  
8 improvements, and intangible benefits?

9 MR. MORRIS: A: Yes, we do.

10 MR. WALLACE: Q: Okay. And the key metrics as I  
11 understand it are found at page 7 of 34?

12 MR. MORRIS: A: That would be correct.

13 **Proceeding Time 11:34 a.m. T33**

14 MR. WALLACE: Q: And when I look at those -- and that's  
15 of Appendix H. When I look at those metrics, none of  
16 them appear to have been reduced to dollars. None of  
17 them are financial.

18 MR. MORRIS: A: In this table, that is correct, yes.

19 MR. WALLACE: Q: And in terms of metrics for the  
20 business case, I mean, also the other -- the only  
21 other table I saw in the key benefits was found at  
22 page 8 of 34, and again, these are objectives, I  
23 guess. I'm not even sure they're metrics. Again,  
24 they were not reduced to financial terms.

25 MR. MORRIS: A: That's correct.

26 MR. WALLACE: Q: As I understand it, the metrics that

1           have been described will be revisited within 24 months  
2           of deployment to determine success?

3 MR. MORRIS:    A:    That's the plan, yes.

4 MR. WALLACE:   Q:    And part of the project that's ongoing  
5           is to develop the means to track the benefits?

6 MR. MORRIS:    A:    I'm sorry, can you repeat that?

7 MR. WALLACE:   Q:    Part of the ongoing PEI project is to  
8           develop the means to track the benefits?

9 MR. MORRIS:    A:    Yes.

10 MR. WALLACE:   Q:    How -- I guess I find it a little  
11           difficult when you don't have them quantified to start  
12           with, in dollar terms, and you haven't got the  
13           methodology to track them straightened out yet, how  
14           you intend to properly evaluate this project.

15 MR. MORRIS:    A:    So, what we're trying to do here -- and  
16           as you can see from the table on page 7 of 34 in  
17           Appendix H, the metrics, what we want to do is move  
18           forward from where we are today towards leading  
19           practices, which you can see on the right-hand side of  
20           that table. And also what we talk about in the  
21           business case is that this is kind of the -- if you  
22           like, the project's in two phases. There's one to  
23           what we call "go live", which is when the technology  
24           gets turned on. But then there's a phase of  
25           continuous improvement, and that phase of continuous  
26           improvement will probably take a number of years,

1 which is why we've got up to 48 months here.

2 And part of that is, if you like, tweaking  
3 or changing this as we go forward to essentially bring  
4 more spend under control. We don't think that we can  
5 go from where we are today to where we'd like to be  
6 overnight. It takes time. It takes effort. It takes  
7 training. It takes a lot of things.

8 MR. WALLACE: Q: But at this point, the simple answer,  
9 I think, is you don't have a process for how you're  
10 going to measure the metrics that you've set out on  
11 page 7 of 34. That will be developed as part of the  
12 project.

13 MR. MORRIS: A: The -- dependent -- I mean, each metric  
14 will be measured differently. So it does depend on  
15 the metric. For instance, what percentage of invoices  
16 are received electronically? Once that process is  
17 built, then that will be very easy to measure that.  
18 We don't receive electronic invoices or electronic  
19 PO's, so we know the amount is zero.

20 MR. WALLACE: Q: Okay. I guess there are two things.  
21 One, if you measure the metrics, which are non-cash,  
22 are you going to come up with a scheme for turning  
23 that into a dollar measurement too?

24 MR. MORRIS: A: I'm sorry, can you say that again? I  
25 coughed, I didn't hear you.

26 MR. WALLACE: Q: Sure. You're going -- if you find a

1 way to measure the metrics on page 7 of 34, are you  
2 also intending to find a way to turn that into a  
3 financial -- or quantify that financially?

4 MR. MORRIS: A: Yes, I just want to be clear. We do  
5 have processes that we're building to measure the  
6 metrics. It's not like we don't know how we're going  
7 to measure the metrics. We know how we're going to  
8 measure the metrics. And, once we have that  
9 measurement, that process in place, we can estimate  
10 the dollar savings coming out of that, yes.

11 MR. WALLACE: Q: And do you have a formula now for how  
12 you are going to estimate the dollar savings? Or are  
13 you going to devise that as you go ahead?

14 MR. MORRIS: A: As you see in the business case, we  
15 have high-level numbers. We have estimates. They are  
16 very high-level estimates, because the challenge that  
17 we have right now is actually the reason why we're  
18 doing this project. If we had all of that information  
19 readily available, then we wouldn't need to do the  
20 project. So it's a bit like a chicken and egg if you  
21 like.

22 **Proceeding Time 11:39 a.m. T34**

23 MR. WALLACE: Q: Yeah, but I guess my concern is that  
24 if you haven't decided what the -- how you convert the  
25 metric to dollars, then -- and you leave that till you  
26 get out there, it's very likely that this is going to

1           come up as a successful financial project. And what I  
2           would like to know is, do you have at this time a  
3           formula for converting those metrics to dollars?

4 MR. MORRIS:    A:    We don't have a formula in place. We  
5           have some methodology that's in place. And in the  
6           business place we have some numbers. We have done, as  
7           you can tell, some comparison with other organizations  
8           as to how the metrics can be determined. And once  
9           those metrics go into place, the financial benefits  
10          will follow.

11                    I gave you one instance, I can give you  
12          another instance. We have spent through peak hour --  
13          that's the procurement card, that's the corporate  
14          credit card. We're only using that for five percent  
15          of our expenditures now. As we increase that spend,  
16          that will increase the rebate that we get from the  
17          procurement card supplier. That will also enable us  
18          to deal electronically with some of the suppliers that  
19          we'll be using through a procurement card. As we're  
20          dealing with them electronically, you will get the  
21          benefits from increased volume or volumes as opposed  
22          to the manual process now, which is very much one-off.

23                    So it's very clear to me that we will get  
24          benefits. I cannot quantify in detail what those  
25          benefits will be, going forward at this point, because  
26          we don't have the systems in place to do that.

1 MR. WALLACE: Q: Well, no sir, but if you met these  
2 metrics, I would have thought you would know there  
3 would be certain savings and that you would have a  
4 formula for getting from the metrics to the savings.  
5 And I don't find that in this business case.

6 MR. MORRIS: A: So those are how we got to the numbers  
7 in the business case. When you look at the table on  
8 page 16, what we're showing there is under the  
9 benefits, productivity savings of \$2.5 million a year  
10 in fiscal 2011, and that number continues. Then in  
11 addition we're showing the benefits from strategic  
12 sourcing that is growing. Most of the benefits that  
13 we will get from completing these two initiatives are  
14 from the sourcing, which is really, if you like,  
15 having longer-term contracts with suppliers, being --  
16 making sure that we use those suppliers, and managing  
17 suppliers and proving relationships, those kind of  
18 things. So even though they are two separate  
19 initiatives, they are very closely linked and --

20 MR. WALLACE: Q: But the strategic sourcing benefits  
21 are also directly related to the strategic sourcing  
22 costs of \$8 million.

23 MR. MORRIS: A: Yes, that's correct.

24 MR. WALLACE: Q: Okay. And the productivity benefits  
25 are the -- and the productivity and the direct cost  
26 reductions, the 2.8 million per year going forward,

1 are associated with the balance of the PEI costs of 36  
2 -- 28 million dollars.

3 MR. MORRIS: A: With one very, very large caveat. If  
4 we don't change our systems and processes, we'll have  
5 great difficulty achieving those strategic sourcing  
6 benefits because those sourcing benefits require that  
7 you have the right processes in place, require that  
8 you have thorough controls over the processes. So  
9 without the procure-to-pay project, it will be, I  
10 would say, almost impossible to achieve the strategic  
11 sourcing benefits. You can't separate the two. You  
12 really can't separate the two of them out.

13 MR. WALLACE: Q: There is again no analysis in this  
14 business case as to the interconnection between those  
15 two, is there?

16 MR. MORRIS: A: I think there's some discussion of  
17 that, yes.

18 MR. WALLACE: Q: And would you like to point to that?  
19 I suggest to you it's a very loose tie.

20 MR. MORRIS: A: I think it may be because I know it so  
21 well, I know it's alluded to there in any paragraph,  
22 but I don't see it specifically, no.

23 **Proceeding Time 11:45 a.m. T35**

24 MR. WALLACE: Q: Thank you. I'd like to turn to how  
25 those benefits for productivity and direct cost  
26 reductions are going to be measured? The direct cost

1 reductions, I think, sounds fairly straightforward of  
2 what you've been saying. The productivity  
3 improvements I have more difficulty with, and I'll  
4 tell you why, and then maybe you'll be able to address  
5 it.

6 It seems to me they're spread all over the  
7 corporation. It will be little bits of time, say, or  
8 efficiencies here, there and everywhere, rather than  
9 in one chunk, identifiable. And I'm wondering if you  
10 could indicate how those are going to be measured.

11 MR. MORRIS: A: So, and generally, your comments are  
12 appropriate that, you know, we're moving from a  
13 decentralized process to a more centralized process.  
14 So the decentralized process -- the business case  
15 talks about 450 people across the company doing  
16 procurement right now. So we're changing that to a  
17 far more centralized approach with procurement  
18 professionals as opposed to non-procurement  
19 professionals.

20 What that will do is, that will free up a  
21 significant amount of time in some cases, and a minor  
22 amount of time in other cases, of those people across  
23 the company. So, in some cases, yes, it is a small  
24 amount of time. And those are people who really  
25 should be focused on, in many cases, their line  
26 management functions. So, they should be out talking

1 to the crews, et cetera, et cetera. They should be  
2 focused on their -- the main reason that they have a  
3 position. They shouldn't be focused on procurement.

4 So in those cases, it will be, yeah, a  
5 little bit here for individuals. In other cases,  
6 where the office is a sufficient size that they have  
7 somebody perhaps devoted to procurement, then that  
8 position would no longer be required for procurement.  
9 So that person may be applying for one of the  
10 procurement positions we've talked about, or they may  
11 be moving into another role.

12 MR. WALLACE: Q: Okay. So how are you going to measure  
13 that, going out?

14 MR. MORRIS: A: So, how we're going to measure that is  
15 really two-fold. One is with the metrics that we've  
16 got here, plus additional metrics that we will be  
17 developing. And the second is through the actual  
18 implementation of the procure-to-pay project, and the  
19 changes in people's budgets that will take place in  
20 2011. So we show on the business case here the \$2.5  
21 million. That \$2.5 million is going to be reduced, or  
22 actually has been reduced in I think the preliminary  
23 budgets for 2011, across the company based on the  
24 estimates we've got as to where those time savings  
25 will take place.

26 MR. WALLACE: Q: Well, I guess my problem, sir, is that

1       having done these rate hearings about every two years,  
2       it's hard enough to decide what is driving budgets,  
3       and to go out and talk about a budget three years from  
4       now, and how an element like this, spread over the  
5       whole corporation, is going to affect it, and find two  
6       and a half million dollars, seems to me absolutely  
7       impossible -- implausible.

8                     Can you tell me how you can do that and see  
9       that fine-tuning on a Hydro budget?

10   MR. MORRIS:    A:   At a high level what we have done is,  
11       we've taken the 2.5 million and allocated to each  
12       business group, and told those business groups that  
13       you need to find your proportion of this amount in  
14       your budget in fiscal 2011.  So, of the 450 FTEs that  
15       I talked about, those are out -- we have the  
16       information to allocate those by business group.  And  
17       therefore, we've taken that, allocated the 2.5  
18       million, by the 450 by business group, and those  
19       business groups have been required to reduce their  
20       budgets by that amount for 2011.

21                     Obviously, if I was in the business group,  
22       I might not be happy about that, and as part of the  
23       budget process, if they're not happy about that, they  
24       would come back.  But when we did this, that was a  
25       very directive approach.

26   MR. WALLACE:    Q:   Okay.  So, you have a document that

1 has gone out as a result of PEI to various business  
2 groups, saying "Reduce your budget"?

3 MR. MORRIS: A: I have a document that I prepared for  
4 the VP Finance at the time, directing this. I'm not  
5 involved in the budget process, so I don't have the  
6 recipient information, if there was any, yeah.

7 MR. WALLACE: Q: Okay. So, I mean, do we know if a  
8 document has actually gone out to the business group  
9 saying reduce your budget for 2011 for PEI?

10 **Proceeding Time 11:50 a.m. T36**

11 MR. MORRIS: A: I haven't seen the document, but based  
12 on the phone calls I got at the time, I am sure a  
13 document went out.

14 MR. WALLACE: Q: Okay, well, I would like a copy of  
15 that document by way of undertaking, please.

16 MR. CHRISTIAN: Yeah, and document used loosely. I'm not  
17 sure if Mr. Morris is agreeing to a specific piece of  
18 paper or an e-mail, but the communication that Mr.  
19 Morris referred to, we'll endeavour to file.

20 THE CHAIRPERSON: Thank you.

21 **Information Request**

22 MR. WALLACE: Q: Mr. Morris, how did you determine the  
23 2.5 million in the first place?

24 MR. MORRIS: A: How we determine the 2.5 million in the  
25 first place. We tried to identify the 450 people  
26 across B.C. Hydro and we estimated that, and we

1 estimated the amount of time on average, based on  
2 talking to a number of those people. So that gave us  
3 a certain number. Then we looked at the design that  
4 we came up with, and we looked at what we estimate the  
5 time of those people or the equivalent would be going  
6 forward. Because end users are still going to be  
7 involved in the procurement process, because they are  
8 the ones that identify whether they need the goods and  
9 services. They're also still going to be the people  
10 who say whether they received the goods and services.

11 What they're not going to need to do is  
12 actually do the sourcing with the vendor, identify the  
13 vendors, et cetera. So they'll still have some  
14 involvement. So it's the difference between those two  
15 percentages that we used to come up with the two and a  
16 half million dollars.

17 MR. WALLACE: Q: Okay, now that calculation doesn't  
18 form any part of the business case, does it?

19 MR. MORRIS: A: The end result of that calculation  
20 does, yes.

21 MR. WALLACE: Q: The 2.5 million.

22 MR. MORRIS: A: Correct.

23 MR. WALLACE: Q: But there is --

24 MR. MORRIS: A: The calculation is not in the business  
25 case.

26 MR. WALLACE: Q: No, and there's no description really

1 of how the 2.5 million was derived, I don't think, or  
2 no detailed description.

3 MR. MORRIS: A: I think that's correct.

4 MR. WALLACE: Q: Thank you. If you find out  
5 differently you can -- you'll be here for a while.

6 MR. MORRIS: A: Yeah, I'm sure.

7 MR. WALLACE: Q: You can come back.

8 Now, what stage is that 2011 budget at now?

9 MR. MORRIS: A: As I say, I'm not involved in the  
10 budget process. I don't know at what stage the 2011  
11 budget is at.

12 MR. WALLACE: Q: Would it be fair to say, given this is  
13 August of -- or October of 2008, that it's going to go  
14 through a few iterations yet?

15 MR. MORRIS: A: I would imagine so.

16 MR. WALLACE: Q: And there may be pushback on that two  
17 and a half million that you would like to see taken  
18 off of the budgets of some of the groups?

19 MR. MORRIS: A: Budgets are always an iterative  
20 approach, but obviously this business case went to the  
21 executive and went to the board, and they've bought in  
22 with that.

23 MR. WALLACE: Q: Well, where did the board buy in?  
24 Where does this document say the budgets will be  
25 reduced by two and a half million and particularly  
26 specific budgets will be reduced by two and a half

1 million?

2 MR. MORRIS: A: I don't think the business case  
3 actually says that.

4 MR. WALLACE: Q: Yeah. I didn't think so either.  
5 Thank you.

6 And do you think that in 2011 it will  
7 actually be possible to trace through the budget  
8 process whether that two and a half million did get  
9 reduced? Because I would suggest to you the budgets  
10 are approved as total and you don't know whether that  
11 happens.

12 MR. CHRISTIAN: I rise to object to the question for a  
13 number of reasons. Firstly Mr. Morris has already  
14 testified that he's not involved in the budgeting  
15 process. Secondly, the budgeting process that we're  
16 talking about would be in respect of a year that is  
17 not the subject of the revenue requirement application  
18 before the Commission at this time. He's talking  
19 about the fiscal 2011 budget, and of course we're here  
20 for fiscal 2009, fiscal 2010.

21 And then lastly, probably the most  
22 overarching observation, I guess, is that we're not  
23 seeking to recover in this revenue requirement any  
24 dollars with respect to PEI. We're seeking and we're  
25 allowing B.C. Hydro to defer those costs to a future  
26 period so that the benefits match the costs. We're

1 effectively seeking an order allowing the  
2 capitalization of what would otherwise be expenses.

3 And so for all those reasons, I think the  
4 line of inquiry that gets to what the budgeting  
5 process will look like for fiscal 2011 goes beyond, I  
6 think, what's probative and relevant in this  
7 proceeding.

8 THE CHAIRPERSON: Mr. Wallace.

9 Proceeding Time 11:55 a.m. T37

10 MR. WALLACE: Yeah, Madam Chair, what I am seeking to  
11 understand is the verification process. We have an  
12 expenditure here of \$36 million down to 28, 25, you  
13 take out strategic sourcing, that is being expended,  
14 that they will be coming back, and it's very  
15 important, if we're going to have this deferral  
16 account, that we know that the expenditure is  
17 worthwhile, because let's not tell them after they've  
18 spent \$36 million. And we need to know whether the  
19 expenditures are going to be properly verified. And  
20 my questions go not as much to the budget process -- I  
21 didn't raise budget process, I went to verification,  
22 and it appears that verification is through the budget  
23 process, and we have to follow it.

24 But I think verification is extremely  
25 important on a business case, and understanding how  
26 business cases work in B.C. Hydro, and the indication

1 was this is a fairly typical one, if not probably the  
2 best business practices, is a very important exercise  
3 for this Commission and for the intervenors.

4 MR. CHRISTIAN: And if I may have a right of reply, with  
5 respect, my friend's submissions don't go to the  
6 actual question that was asked, which is about the  
7 budgeting process for fiscal 2011 will account for  
8 this two and a half million dollars. And while it's  
9 true that the witness referred to the two and a half  
10 million dollars in the fiscal 2011 budget, it was not  
11 in the context of explaining how the overall benefit  
12 of this project was calculated. Rather, it was an  
13 example of how it will, in fact, be reflected. And so  
14 I think that my friend's general line of enquiry is  
15 not objectionable, and I haven't objected. I'm  
16 objecting to a specific question that requires this  
17 witness, or this panel, to address a matter that  
18 they're not here to address, and that isn't relevant  
19 in any event.

20 THE CHAIRPERSON: Let's try again, Mr. Wallace.

21 MR. WALLACE: I can just go back and ask again, how are  
22 the benefits going to be measured and verified?  
23 Confirmed, whatever -- I mean, that is what I'm after.  
24 That led into the budget process, and that's why I  
25 asked about it.

26 THE CHAIRPERSON: Perhaps to conclude on this topic,

1           because I think hearing Mr. Christian's objections, I  
2           think, Mr. Wallace, you have to keep in mind what Mr.  
3           Morris has told you a few times already. He is no  
4           longer involved in the budgeting process.

5                           But having said that, same time I think the  
6           panel certainly is with you there, that we have a  
7           business case there, and it is certainly important for  
8           this panel to understand what -- why these dollars  
9           will be spent, and why would we allow them to be  
10          deferred. So, please proceed, but see -- I think we  
11          have heard enough evidence on that. But just remember  
12          also that Mr. Morris is not the budgeting expert.  
13          Perhaps you can reframe, talking about his personal  
14          expectations.

15 MR. WALLACE:   Okay. Thank you, Madam Chair. I note that  
16           it's noon, and I suspect I'm going to be on this  
17           subject for a little while, so it might be better to  
18           come back to it after the back.

19 THE CHAIRPERSON:   Might be then good for everybody.

20           Adjourn, and we shall return 1:30. Thank you.

21 **(PROCEEDINGS ADJOURNED AT 11:59 A.M.)**

22 **(PROCEEDINGS RESUMED AT 1:30 P.M.)**

**T38/39**

23 THE CHAIRPERSON:   Please be seated.

24                           Mr. Christian.

25 MR. CHRISTIAN:   Thank you, Madam Chair. I've got three  
26           undertakings to file -- actually, two undertakings to

1 file and another document that really arises from a  
2 commitment Hydro made in response to IR, BCUC IR  
3 3.186.1.2, and that relates to the failure of the G.M.  
4 Shrum unit 3, and earlier already, at the outset of  
5 this proceeding, filed an internal B.C. Hydro report  
6 and we've now got the external report on that failure  
7 that I'd like to file.

8 Now, it was filed under cover of letter  
9 today already. The colour copy, and what I have here  
10 is a black and white hard copy that I can hand up as  
11 Exhibit B-50.

12 THE HEARING OFFICER: B-50.

13 **(LETTER DATED OCTOBER 15, 2008 FROM J. SOFIELD, B.C.**  
14 **HYDRO, TO BCUC, WITH ATTACHMENT RE. GM SHRUM G3 RUNNER**  
15 **FAILURE, MARKED AS EXHIBIT B-50)**

16 MR. CHRISTIAN: The colour copies are available online  
17 but we didn't reproduce them in colour for the purpose  
18 of this, but they are available and have been filed  
19 electronically.

20 And then the two undertakings I have are  
21 firstly a request -- or in response to a request first  
22 from Mr. Fulton asking about the transmission capital  
23 expenditures year to date versus plan for fiscal 2009,  
24 and we have a table here that shows those figures, and  
25 that would be Exhibit B-51.

26 THE HEARING OFFICER: Marked B-51.

1 (RESPONSE TO B.C. HYDRO UNDERTAKING NO. 22, RE. VOLUME  
2 6, PAGE 937, LINES 11 TO 26 TO PAGE 938, LINES 1 TO 8,  
3 MARKED AS EXHIBIT B-51)

4 MR. CHRISTIAN: And the second one arises from a question  
5 from Commissioner O'Hara and it asks with respect to  
6 BCUC IR 2.153.2, the fiscal 2009 plan overtime costs  
7 include operating overtime only or does it include  
8 both operating and capital, and the answer is here in  
9 B-52 and the answer is they include both.

10 THE HEARING OFFICER: Marked B-52.

11 (RESPONSE TO B.C. HYDRO UNDERTAKING NO. 40, RE. VOLUME  
12 7, PAGE 1209, LINES 23 TO 26 TO PAGE 1210, LINES 1 TO  
13 3, MARKED AS EXHIBIT B-52)

14 THE CHAIRPERSON: Thank you. Mr. Christian, Commissioner  
15 Milbourne might wish to ask a question or respond  
16 here. So Commissioner Milbourne has --

17 COMMISSIONER MILBOURNE: Just responding to your inquiry  
18 of earlier today.

19 MR. CHRISTIAN: Yes.

20 COMMISSIONER MILBOURNE: I have a proposal for you.

21 **Proceeding Time 1:33 p.m. T40**

22 MR. CHRISTIAN: Always keen to hear proposals.

23 COMMISSIONER MILBOURNE: It will be in writing as soon as  
24 our friend, Mr. Bemister, gets it transcribed.

25 My suggestion on the dilemma that the  
26 illusory nature of my question seems to pose is, if

1       you would look specifically at page 1158 -- you don't  
2       have to do this now. Page 1158, line 25 to page 1159,  
3       line 5, and then add to that page 1160, line 16 to  
4       line 25, and add to that page 1161, line 10 to line  
5       14, and then add to that page 1162, line 4 to line 6.  
6       And if you read those in sequence, and if it doesn't  
7       clearly dimension my request, then -- to the point  
8       where you could respond to it, then just forget the  
9       whole matter and I'll leave it for other people. So  
10      that's the end of my statement, okay?

11 MR. CHRISTIAN: Normally -- normally I'd be very grateful  
12      for the opportunity to forget the whole matter. But I  
13      can tell you that we have looked at exactly those  
14      passages, in that order that you suggested, and that  
15      was the reason that I gave my speech this morning.  
16      But I'm still reluctant to just take that as a "forget  
17      it". It's clearly an issue that concerns you, and --

18 COMMISSIONER MILBOURNE: Well, the -- if you take all the  
19      intervening things out and just read that in a  
20      sequence, I submit to you that it frames the question  
21      -- the issue and the response I'm looking for.

22 MR. CHRISTIAN: All right.

23 COMMISSIONER MILBOURNE: Not satisfied -- if that doesn't  
24      work for you, as I say, forget it.

25 MR. CHRISTIAN: We'll do what we can.

26 COMMISSIONER MILBOURNE: Thank you.

1 MR. CHRISTIAN: And then that's all I have.

2 THE CHAIRPERSON: Thank you, Mr. Christian.

3 Mr. Wallace, back at the podium?

4 MR. WALLACE: Thank you, Madam Chair, I'll continue.

5 MR. WALLACE: Q: I'm going to start from a slightly  
6 different spot on the same issue, but hopefully it  
7 will clarify it. Could you turn to Exhibit B-5, JIESC  
8 -- or response to JIESC Information Request 1.18.6?

9 MR. MORRIS: A: Yes, we have it.

10 MR. WALLACE: Q: Thank you. And it's dealing with the  
11 procurement enhancement initiative, and the question  
12 is, how have the benefits been committed to, and how  
13 will they be reflected in future budgets? And the  
14 second paragraph of the response deals with the P2P,  
15 and states:

16 "The productivity benefits from P2P will be  
17 reflected in individual business group  
18 budgets in fiscal 2011 and subsequent years  
19 by specific dollar reductions to those  
20 budgets. Such reflections should reflect  
21 the expected savings to the group from the  
22 P2P implementation and the process  
23 improvement benefits. No reduction is being  
24 made for 2010, as this is the first year for  
25 deployment, and will include a significant  
26 effort for training, education, embedding



1 groups were not involved. They were, if you like, the  
2 recipients of our recommendation.

3 MR. WALLACE: Q: Okay, and how firm are those  
4 recommendations? I mean are they confirmed at this  
5 stage? Are they being negotiated or are they subject  
6 to the 2011 budget process whenever that happens?

7 MR. MORRIS: A: So my understanding is when this was  
8 done, and that was earlier this year, is those were  
9 firm at that point. And what I saw was a directive  
10 that your budgets will come down by dollars X. Having  
11 said that, as we talked earlier, I mean, budgets do  
12 change. We're a long way away from fiscal 2011. So  
13 I'm sure a whole bunch of other things will change in  
14 the budgeting process between now and then.

15 MR. WALLACE: Q: Thank you. And I would assume in the  
16 budgeting process by then, and again if this is beyond  
17 you by all means say so, that the value of the P2P  
18 initiative to the business group, ultimately in the  
19 submission of their budget, will be decided by the  
20 business group.

21 MR. MORRIS: A: Sorry, could you repeat the question?

22 MR. WALLACE: Q: When the business group goes to put in  
23 its budget, the value of the P2P benefits in terms of  
24 reducing the workers on their group, will be decided  
25 by them at that time.

26 MR. MORRIS: A: I can't really comment on that because

1           that would be their decision at the time.

2 MR. WALLACE:   Q:   And just so when we look ahead and  
3           come to it, are you aware of any way that the benefit  
4           of P2P will be able to be transparently observed or  
5           measured at that time?

6 MR. MORRIS:    A:   Am I aware of any way, did you say?

7 MR. WALLACE:   Q:   Yes.

8 MR. MORRIS:    A:   Yes, I am.

9 MR. WALLACE:   Q:   And how would that be?

10 MR. MORRIS:    A:   Okay, there are a number of different  
11           ways, as we talked about earlier.  What we see is  
12           there will be less involvement going -- excuse me,  
13           less involvement going forward once P2P is implemented  
14           by the end users in the determination and the  
15           acquisition of goods and services.  So the end user in  
16           the field should see a number of changes.  Very  
17           simply, what they should see if they want to buy a  
18           microphone, for instance, they would presently -- they  
19           could be involved in all the stages of buying that  
20           microphone from kind of looking at what the specs are  
21           for the microphone and saying, "Well, this type, this  
22           size," and researching the market, to see what's there  
23           and be involved in all stages of starting, saying they  
24           need the microphone, going through a competitive  
25           process, going through an evaluation process, awarding  
26           the contract, being involved in even the contract

1 negotiations, writing up the contract.

2 **Proceeding Time 1:40 p.m. T42**

3 In the future stage they will just say, "I  
4 need the microphone, it's for this and it needs to  
5 meet this criteria." The rest of it would be done  
6 within the procurement department, except obviously  
7 the end user would need to say that they've got the  
8 microphone that they need. Very simply, that's the  
9 direction that we're heading in.

10 MR. WALLACE: Q: And I understand that subjectively,  
11 but I'm trying to get down to a measurement. Do most  
12 business groups have a line item in their budget for  
13 procurement at this stage?

14 MR. MORRIS: A: The reason I hesitate, it's a difficult  
15 question to answer. Some business groups have people  
16 that do procurement. When you get down to the more  
17 granular level, I would say most groups don't have a  
18 line item for procurement, but that doesn't mean they  
19 don't spent time doing procurement. That's part of  
20 the challenge that we have.

21 MR. WALLACE: Q: Yeah. But in a measurable sense, it's  
22 going to be very hard to see the dollars saved out in  
23 the department for -- identify them for procurement.

24 MR. MORRIS: A: Yes, I think you can see it more in the  
25 way of -- I used to be spending half my time doing  
26 procurement, now I'm spending 10 percent of my time

1           doing procurement. So people don't code their time to  
2           procurement activities generally, unless they spend a  
3           lot of time on, you know, full-time job on  
4           procurement.

5   MR. WALLACE:   Q:   Thank you. If this had been done  
6           through Accenture, there I presume would have been in  
7           the terms of the Accenture contract, measurable  
8           metrics, I guess, that would have identified exactly  
9           what was being done and time being spent, or number of  
10          transactions or some metric.

11   MR. MORRIS:   A:   I think you're asking me a speculative  
12          question.

13   MR. WALLACE:   Q:   Okay.

14   MR. MORRIS:   A:   I can't really answer that.

15   MR. WALLACE:   Q:   Then if you don't want to answer it  
16          I'll argue it. It's okay.

17                    What -- I mean who is accountable in B.C.  
18           Hydro for these benefits arriving, and what are the  
19           consequences if they don't?

20   MR. MORRIS:   A:   So essentially the procure-to-pay  
21           project is sponsored by the VP Finance through the  
22           chief procurement officer through myself. So at this  
23           point we are responsible for the achievement of those  
24           benefits. And as we refer in the response to an IR,  
25           we will be tracking the benefits that we get going  
26           forward. So we will be, you know, held accountable to



1 MR. MORRIS: A: That hasn't been determined at this  
2 point. Normally we do post-implementation. Reports  
3 will be done by a group outside the group that  
4 initiated the project, so it may be internal audit.  
5 It could be another internal group. That -- as far as  
6 I know, that decision hasn't been made.

7 MR. WALLACE: Q: Okay. And I guess the reason I ask  
8 is, I don't know if you're familiar with the stringent  
9 DSM audits that are done by B.C. Hydro of industrial  
10 customers, but they're generally a hired third-party  
11 outside auditor. Are you familiar with that, sir?

12 MR. MORRIS: A: I know there are audits done. I'm not  
13 actually familiar with them.

14 MR. WALLACE: Q: Okay. And has Hydro given any thought  
15 to applying the same vigour in using a third-party  
16 outside auditor on this?

17 MR. MORRIS: A: I haven't given any thought to that.

18 MR. WALLACE: Q: Okay, thank you. I'd like to turn now  
19 to a completely different subject, and that's the use  
20 of a fairness commissioner, which was done in this  
21 case, and I gather is done on other occasions inside  
22 B.C. Hydro.

23 MR. MORRIS: A: That's my understanding, it's done,  
24 yes.

25 MR. WALLACE: Q: And can you outline generally the  
26 purpose of a fairness commissioner, or the purpose of

1 the fairness commissioner in the procurement  
2 enhancement initiative?

3 MR. MORRIS: A: The purpose of the fairness  
4 commissioner in the procurement enhancement initiative  
5 was to ensure that we undertook a fair process, from  
6 the time the fairness commissioner was hired through  
7 to the end of the award of the contract.

8 MR. WALLACE: Q: Okay, and in this case that was Mr.  
9 Michael Asner?

10 MR. MORRIS: A: He was in place for part of that time,  
11 yes.

12 MR. WALLACE: Q: He was hired for that purpose, from  
13 the time he was hired till the end --

14 MR. MORRIS: A: Yes, he was hired for that purpose,  
15 yes.

16 MR. WALLACE: Q: Okay. And if you could turn to BCUC  
17 IR 2.176.1.

18 MR. MORRIS: A: Yes, I have that.

19 MR. WALLACE: Q: And this -- and there are three  
20 attachments there. A letter from Mr. Asner to B.C.  
21 Hydro, and a response to that letter from Ms.  
22 Hemmingsen, and a draft report which is confidential  
23 and filed with the BCUC only?

24 MR. MORRIS: A: Yes.

25 MR. WALLACE: Q: And when I read that correspondence, I  
26 get the impression, and please correct me if I'm

1 wrong, that Mr. Asner was concerned that Deloitte's  
2 might have an advantage in the process of selecting a  
3 consultant to assist in the procurement enhancement  
4 initiative, design and implementation, due to prior  
5 work for B.C. Hydro on that matter?

6 MR. MORRIS: A: You're referring to the Attachment 1?

7 MR. WALLACE: Q: Yes.

8 MR. MORRIS: A: Yes, that, I think, is the gist of Mr.  
9 Asner's comments.

10 MR. WALLACE: Q: And he raised these concerns, as I  
11 take it, and I'm inferring into the correspondence,  
12 and as a result there was a meeting held with B.C.  
13 Hydro some time in October of 2007.

14 MR. MORRIS: A: That's correct.

15 MR. WALLACE: Q: And in that -- having raised those  
16 concerns, I take it from his letter, that the  
17 discussion after he laid out his concerns turned to  
18 three options. One was ignoring the events prior to  
19 August 14<sup>th</sup>, and that was prior knowledge of  
20 Deloitte's. Second, that he moderate his report, and  
21 third that his contract be terminated. And from what  
22 I take, he wasn't very happy with any of those  
23 options. Would you agree?

24 **Proceeding Time 1:49 p.m. T44**

25 MR. MORRIS: A: Well, I don't think I can comment on  
26 Mr. Asner's happiness or lack of it.

1 MR. WALLACE: Q: Well, we'll leave the letter to speak  
2 for itself then. In the end, what happened was Mr.  
3 Asner's contract was terminated, wasn't it?

4 MR. MORRIS: A: That's correct.

5 MR. WALLACE: Q: And I guess my question to you is, why  
6 -- and it was terminated without him completing this  
7 report.

8 MR. MORRIS: A: Mr. Asner completed a number of draft  
9 reports, and in those draft reports he raised a few  
10 issues. All of those issues were addressed in his  
11 subsequent draft reports. They were addressed to his  
12 satisfaction.

13 MR. WALLACE: Q: The other issues, you're saying?

14 MR. MORRIS: A: All the issues that he raised.

15 MR. WALLACE: Q: Were addressed to his satisfaction did  
16 you say, or --

17 MR. MORRIS: A: That's what I said. I am just --  
18 because we did file one of these reports in  
19 confidence.

20 MR. WALLACE: Q: Right. But the letter clearly  
21 indicates -- he finishes his final paragraph, final  
22 part, "My concerns..." and this is Attachment 1:

23 "My concerns are obvious to the outside  
24 observer. In this meeting I was told I  
25 would not be allowed to submit my report  
26 because of my conclusion that Deloitte was

1           unfairly favoured. I am concerned that some  
2           of those in the meeting did not understand  
3           the role of a fairness officer. It is not  
4           the role of the fairness officer to mitigate  
5           problems himself or herself. Rather the  
6           role of the fairness officer is to point out  
7           conflicts and issues which might potentially  
8           result in unfair competition. However, when  
9           an issue is not mitigated, the fairness  
10          officer cannot simply ignore the issue.  
11          Please distribute this letter to your  
12          colleagues who attended the meeting, and  
13          please contact me if you wish to discuss it  
14          further."

15                        That letter, written on October 25<sup>th</sup> doesn't  
16          seem to imply that he's happy that all the issues have  
17          been resolved. And I'm wondering where you came to  
18          that conclusion.

19 MR. MORRIS:   A:    So prior to Mr. Asner's letter of  
20          October 25<sup>th</sup>, we got a number of draft reports from Mr.  
21          Asner. The latest one was dated sometime in  
22          September, and all except, I think, one minor issue  
23          that doesn't relate to his concern in this letter were  
24          addressed and the subsequent report from Mr. Asner  
25          said he was happy with the resolution of those issues,  
26          and the status of the outstanding issues was

1 completed.

2 MR. WALLACE: Q: Okay, and -- but you're not suggesting  
3 that his concerns in his letter of October 25<sup>th</sup>, 2007  
4 were addressed to his satisfaction?

5 MR. MORRIS: A: I'm sorry, could you repeat that?

6 MR. WALLACE: Q: You are not suggesting that his  
7 concerns raised in his letter of October 25<sup>th</sup>, 2007  
8 were addressed to his -- or to his satisfaction.

9 MR. MORRIS: A: No, I am suggesting that all of the  
10 issues he raised in his letters prior to October the  
11 25<sup>th</sup> were addressed to his satisfaction, which were  
12 referenced by subsequent letters from him.

13 MR. WALLACE: Q: And the prior reports were interim  
14 reports?

15 MR. MORRIS: A: That is correct.

16 MR. WALLACE: Q: Okay, and we -- and the letter of  
17 October 30<sup>th</sup> from B.C. Hydro terminating his  
18 involvement stated, and I go to the final paragraph:

19 "As a result of our meeting and your letter  
20 of October 25<sup>th</sup>, your current view relative  
21 to the involvement of Deloitte is on the  
22 record and clear to us. We do not feel that  
23 any purpose is served or value added in  
24 continuing your engagement. Accordingly,  
25 this letter is notice of termination under  
26 Section 16(c) of the consulting services

1 agreement dated August 14<sup>th</sup>, 2007 between us.  
2 The agreement will terminate 15 days after  
3 delivery of this notice. In the interim you  
4 should do no further work under the  
5 agreement."

6 And that's the position Hydro took.

7 MR. MORRIS: A: If you go back a little earlier in that  
8 letter to the third paragraph, which is just one  
9 sentence, that letter says:

10 "While we respect your right to change your  
11 view, your lack of timely notice to B.C.  
12 Hydro is a concern."

13 And so, Mr. Asner's letter of October 25<sup>th</sup> was  
14 different to the information that we had received in  
15 letters before that date, and he had essentially done  
16 all of the work that he had been requested to do in  
17 his contract. So --

18 **Proceeding Time 1:54 p.m. T45**

19 MR. WALLACE: Q: Well, he hadn't finalized -- he was  
20 providing interim reports.

21 MR. MORRIS: A: Correct.

22 MR. WALLACE: Q: He was presumably requested under the  
23 contract to finalize his reports, or intended that he  
24 would finalize them.

25 MR. MORRIS: A: I don't have the contract in front of  
26 me, so I'm not sure exactly what the contract said.

1 But he --

2 MR. WALLACE: Q: Well, subject to check, wouldn't you  
3 agree with me that it was probably intended under the  
4 contract that he would finalize his interim reports at  
5 some point?

6 MR. MORRIS: A: That would be a logical thing, yes.

7 MR. WALLACE: Q: Yes. Okay. And he hadn't done that.

8 MR. MORRIS: A: No, that's correct.

9 MR. WALLACE: Q: Okay. And when he raised this  
10 concern, he was -- for, I gather, lack of timely  
11 notice, terminated and asked to do no further work.

12 MR. MORRIS: A: We didn't see any additional value in  
13 spending more funds for Mr. Asner to finalize the  
14 report when we already had the letter on file with his  
15 views.

16 MR. WALLACE: Q: Do you know how much Mr. Asner was  
17 paid?

18 MR. MORRIS: A: I do.

19 MR. WALLACE: Q: So, could you tell me?

20 MR. MORRIS: A: I think it was roughly \$16,000.

21 MR. WALLACE: Q: Okay. And what was the total contract  
22 intended to be for?

23 MR. MORRIS: A: Ten thousand dollars.

24 MR. WALLACE: Q: Okay. Thank you.

25 That completes my questions for this panel.

26 THE CHAIRPERSON: Thank you, Mr. Wallace.

1                   Next in the order of cross-examination of  
2           this Panel number 4, I believe, is CEC. Yes, Mr.  
3           Weafer? Correct.

4 MR. WEAFER: Thank you, Madam Chair.

5 **CROSS-EXAMINATION BY MR. WEAFER:**

6 MR. WEAFER: Q: Good afternoon, B.C. Hydro panel. My  
7           name is Chris Weafer. I'm representing the Commercial  
8           Energy Consumers' Association of British Columbia in  
9           this proceeding. I've got three areas of questions  
10          that we'll proceed with this afternoon. The ABSU, the  
11          procurement enhancement initiative and then lastly  
12          building and civil infrastructure.

13                   Firstly, dealing with ABSU, if I could turn  
14          you to BCUC IR 1.35.1. And here, looking at the  
15          financial summary, the costs set out in Table 5.6,  
16          "Updated summary".

17 MR. LEONARD: A: I have that.

18 MR. WEAFER: Q: Now, looking at the actual spending and  
19          growth from 2006 to 2008, and I put to you that it's  
20          in and around 7 percent, or 2.33 percent per year,  
21          subject to check. Does that sound correct?

22 MR. LEONARD: A: Subject to check, yes, that would be  
23          correct.

24 MR. WEAFER: Q: And that, to my understanding, is about  
25          the same as the internal B.C. Hydro budget formula of  
26          inflation plus customer growth less 1.05 percent

1 productivity. Are you familiar with that formula, and  
2 does that sound about right to you?

3 MR. LEONARD: A: Yeah, that would sound --

4 MR. WEAVER: Q: Thank you. So, in terms of managing  
5 the ABSU area of services, the formulaic approach, I  
6 take it, B.C. Hydro takes the position that that's  
7 been quite successful?

8 MR. LEONARD: A: We wouldn't -- I mean, I wouldn't  
9 speak to the formulaic approach. We haven't, in my  
10 role in managing ABS agreement, we wouldn't be taking  
11 a formulaic approach in doing that. We would be  
12 basing it on working with the various business units,  
13 working with the needs of B.C. Hydro, both in the  
14 delivery of the service plan, customer growth, as well  
15 as our employees and managing the contract in that  
16 sense.

17 MR. WEAVER: Q: Right. But you're managing it  
18 according to a formula in terms of measuring the  
19 success.

20 MR. LEONARD: A: I wouldn't say that we're managing to  
21 a formula in terms of success, no.

22 MR. WEAVER: Q: But we do have a formula in terms of,  
23 when we're looking at the annual assessment of the  
24 costs.

25 MR. LEONARD: A: Assessed.

26 MR. WEAVER: Q: We're using a formula, and I would



1 about is not how these costs are derived and how the  
2 savings are. We have a savings model that we use,  
3 that we had a third party come in and assist and help  
4 us develop that and validate that. That is how these  
5 savings are derived.

6 MR. WEAFFER: Q: And the savings at the end of the year  
7 are part of how you assess whether you're seeing  
8 success is through utilization of a formula. That's  
9 the standback test and look at whether the contract is  
10 working in the interest of B.C. Hydro and its  
11 customers. Is that --

12 MR. LEONARD: A: The model that -- yes, the model that  
13 we use specific to the ABS, our agreement with  
14 Accenture is how we determine if yes, in fact the  
15 savings are on track, what we had forecasted, and  
16 delivering the value that we had intended.

17 MR. WEAFFER: Q: And that approach would do -- do you  
18 believe that's been successful for B.C. Hydro?

19 MR. LEONARD: A: Yes, I mean I would say absolutely,  
20 that our agreement with Accenture has been successful,  
21 you know, and we would categorize that it cost a  
22 number of things. First of foremost would be savings.  
23 You know, we have forecasted savings. Accenture to  
24 date has saved \$100 million of savings to the end of a  
25 contract, the fifth year of the contract. We'd also  
26 look to satisfaction; satisfaction both in terms of

1 our employees, our external customers. Again we have  
2 third party, you know, measurement and verification of  
3 that. And then in terms of service, you know, the  
4 overall quality of the service and we have  
5 benchmarking that we look to for that.

6 So across those three variables I'd say  
7 absolutely. And then I think, you know, you overlay  
8 productivity. Part of the reason we went to Accenture  
9 was to get those productivity savings, and that's been  
10 witnessed again in our savings.

11 MR. WEAVER: Q: Right, and the productivity is also a  
12 formula-based approach, would you agree?

13 MR. LEONARD: A: Not with respect to Accenture. We pay  
14 Accenture for service and an outcome, and that pricing  
15 is fixed and we note what that's going to look like  
16 over the ten years of our agreement. And that pricing  
17 was put in place with the signing of our amended  
18 service agreement in fiscal 2007. So that is put  
19 forward. And based on the volumes that are, you know,  
20 of the services that we use, that will then generate  
21 those savings.

22 MR. WEAVER: Q: Right, and there's a discipline in that  
23 pricing, correct?

24 MR. LEONARD: A: Absolutely.

25 MR. WEAVER: Q: Thank you. Just looking to the cost of  
26 management of the ABSU contract, if I could turn you

1 over to BCUC 1.36.1 and looking at the bottom line of  
2 that IR response, "The total ABSU contract management  
3 costs," you'd agree with me that the costs appear to  
4 have decreased over time, and could you give me just a  
5 general description of why that has occurred?

6 MR. LEONARD: A: Yeah. The costs to administer the  
7 contract have, yeah, have in fact decreased. I mean,  
8 if we look from fiscal 2006 they were roughly at 4.3  
9 million. This year we're budgeting them to be 3.3  
10 million for both fiscal '09 and fiscal '10. In terms  
11 of why the costs have decreased, I think it's  
12 reflective in where we are with respect to the  
13 contract. There's definitely a greater understanding,  
14 both in terms of my contract to office as well as in  
15 the business of how the agreement works. The amount  
16 of governance that is needed is appropriate and, you  
17 know, we look very closely at external benchmarking on  
18 this. And external benchmarking at this, you know, in  
19 this -- for a contract of this size would point to  
20 that we are, you know, well within our contract to --  
21 or sort of helping measures in terms of governance and  
22 costs associated.

23 MR. WEAVER: Q: Thank you. Can you tell me why you're  
24 not forecasting increased savings, given the success  
25 you're having and which you just described and planned  
26 fiscal '09 --

1 MR. LEONARD: A: In terms of --

2 MR. WEAFFER: Q: -- fiscal 2010, why you stay constant  
3 in those two years, notwithstanding savings overall  
4 prior years?

5 MR. LEONARD: A: In terms of the \$3.3 million?

6 MR. WEAFFER: Q: Yes.

7 **Proceeding Time 2:04 p.m. T47**

8 MR. LEONARD: A: I think where -- I think we've hit a  
9 level that we feel is comfortable and appropriate.  
10 We're roughly around 2.2 percent of the overall  
11 contract value. If we feel that that is an  
12 appropriate level to govern the contract. We've got a  
13 model that we feel is -- you know, provides the  
14 appropriate level. And like I said, when we looked at  
15 third-party benchmarking, those are sort of at that  
16 level of two percent. You know, it's probably on the  
17 low side. You know, most costs for an agreement of  
18 this size, you'd be looking at three to ten percent of  
19 overall governance. So we feel that that's an  
20 appropriate level at 3.3 million.

21 MR. WEAFFER: Q: So you've improved every year, but you  
22 don't see any future improvement?

23 MR. LEONARD: A: I'm not saying that we won't see  
24 future improvements. What we may see is, you know,  
25 there are -- this is a complex agreement. But I think  
26 we've -- if you will, we've hit our stride in terms of

1           what's -- you know, we've hit efficiencies in how we  
2           administer and work with Accenture and in the business  
3           groups. And we -- you know, like I said, we feel this  
4           is appropriate, going forward.

5 MR. WEAFFER:   Q:   No room for further improvement, in  
6           terms of cost.

7 MR. LEONARD:   A:   No, I would say at this point -- I  
8           mean, there is a fine line, if you don't spend enough,  
9           too, to administer and govern, then you're not  
10          probably reaping as much in terms of savings of the  
11          agreement. We want to make sure that we are --  
12          there's an appropriate level of due diligence, and  
13          that \$3.3 million, we feel that that's an appropriate  
14          level.

15 MR. WEAFFER:   Q:   Okay, thank you. Just moving on and  
16          just to delve into that a little bit further, at BCUC  
17          IR 1.38.1, and here you've got the service metrics  
18          being used to control the ABSU contract.

19 MR. LEONARD:   A:   Sorry, what was that IR again?

20 MR. WEAFFER:   Q:   BCUC IR 1.38.1.

21 MR. LEONARD:   A:   Okay. Yes.

22 MR. WEAFFER:   Q:   And the attached schedule, pages 1  
23          through 10, set out in detail the metrics utilized.  
24          Can you tell me how well the monitoring defines the  
25          essential performance criteria? Is that detailed  
26          model working well?

1 MR. LEONARD: A: Sorry, can you repeat your question  
2 again?

3 MR. WEAFFER: Q: The detailed model that you've  
4 attached, in terms of assessing the performance  
5 criteria, is it improving? Are you seeing  
6 improvements in performance as a result of that  
7 monitoring? We've just discussed the improvements on  
8 the cost side.

9 MR. LEONARD: A: Yes.

10 MR. WEAFFER: Q: Now try to assess the improvements on  
11 the benefits side.

12 MR. LEONARD: A: Yeah, absolutely. Accenture's  
13 performance has improved over the various years. You  
14 know, we administer -- there's roughly 85 metrics that  
15 we look at. We have seen a significant improvement  
16 over the years. I think currently year-to-date, we're  
17 -- just let me -- overall right now on the -- for the  
18 entire contract, we're at 98.5 percent, and that,  
19 we've seen a steady improvement over the years, across  
20 the metrics. So, absolutely we've seen an  
21 improvement.

22 MR. WEAFFER: Q: And can it be further improved?

23 MR. LEONARD: A: Yeah, absolutely. I mean, I think  
24 there are -- there is room for improvement. You know,  
25 currently, this year, we're seeing -- we've seen an  
26 improvement from fiscal '05 to fiscal -- sorry,

1 contract year 5 to contract year 6. We've seen an  
2 improvement, and we work very closely with that, you  
3 know, with Accenture, to ensure that there are -- you  
4 know, there are the appropriate level of improvements.

5 Every year, Accenture's required to submit  
6 a service improvement plan for the various towers, and  
7 we look at those, and work with them, you know,  
8 closely to ensure that it's in line with what our  
9 needs are at the time and for the future.

10 MR. WEAFFER: Q: So, in summary, B.C. Hydro, in looking  
11 at the ABSU contract, where metrics have been defined,  
12 B.C. Hydro has been able to work well to improve  
13 services and manage performance.

14 MR. LEONARD: A: We've -- I would characterize that  
15 we've been able to work with Accenture to ensure that  
16 the metrics are the right metrics, and to ensure that  
17 we set our expectations and the achievement of those  
18 metrics out and then Accenture goes out and, you know,  
19 they put in place the appropriate measures to ensure  
20 that they're meeting those metrics.

21 MR. WEAFFER: Q: And so in that situation, B.C. Hydro  
22 has applied some judgment in terms of setting metrics,  
23 and then let the metrics work over time, but has  
24 monitored those metrics.

25 MR. LEONARD: A: Yes, we monitor those metrics very  
26 closely, and in some cases -- most of these metrics

1 would be monitored on a monthly basis. Some are  
2 quarterly, but most of them are monthly.

3 **Proceeding Time 2:10 p.m. T48**

4 MR. WEAVER: Q: And that's resulted in being able to  
5 efficiently look at performance in those areas, and  
6 keep track of those, the performance.

7 MR. LEONARD: A: Yeah, it's assisted in improving that  
8 service level of performance.

9 MR. WEAVER: Q: Thank you. That's helpful. I'm going  
10 to move on to the procurement enhancement initiative.  
11 And I'll just give you the IR references I'm going to  
12 refer to. I don't think you're going to need -- just  
13 for the record, so that we know, it's BCUC IR 1.64.1,  
14 BCUC IR 2.158.1, and CEC IR 1.4.1. But I think the  
15 level of discussion is not going to require that you  
16 go to them, but feel free to as need be.

17 MR. CHRISTIAN: Having pointed them out, I wonder if I  
18 could still have them said again, because I didn't  
19 actually note them down.

20 MR. WEAVER: Q: Oh, absolutely, yes. BCUC IR 1.64.1,  
21 BCUC IR 2.158.1, and CEC IR 1.4.1. And as I say, I  
22 think the level of discussion is going to save you  
23 going through them, but if you need them, that's where  
24 I'll be referring to.

25 With respect to -- in response to BCUC IR  
26 1.64.1, and talking about the procurement enhancement

1 initiative, the response indicated that the reductions  
2 in scope for application of the process indicate that  
3 about half of the expenditures did not have  
4 opportunity for improvement, and mentions the  
5 possibility of long-term contracts interfering with  
6 being able to make the improvements.

7 Can you tell me if the other half of the  
8 opportunities can be improved at any time, or are  
9 there other obstacles to utilizing the procurement  
10 enhancement initiative, other than the existence of  
11 long-term contracts?

12 MR. MORRIS: A: I'm sorry, I'm just reading 1.64.1 and  
13 I'm missing your comment that half of the categories,  
14 or half the expenditures, aren't available for  
15 improvement. So we can just go on to your question.

16 MR. WEAFFER: Q: Well, if I've referred you to the wrong  
17 IR, I apologize. Well, let's -- rather than deal with  
18 the IR, the question -- is that your understanding,  
19 that roughly half of the categories of where the  
20 procurement enhancement initiative may have been  
21 assessed, there's obstacles to utilizing the  
22 procurement enhancement initiative because of the --  
23 there exists long-term contracts. Is that a correct  
24 statement?

25 MR. MORRIS: A: No, actually, I don't agree with that.

26 MR. WEAFFER: Q: Okay.

1 MR. MORRIS: A: There are certainly a few categories  
2 where there is very limited opportunities, but I  
3 wouldn't say it was anywhere near half.

4 Perhaps I can just clarify also when we  
5 talk about the procurement enhancement initiative,  
6 we're talking about the procure-to-pay project, which  
7 is the project to improve and enhance our internal  
8 processes. And then we're also talking about  
9 strategic sourcing, which I think is what you're  
10 referring to in the response to 1.64.1, where we're  
11 looking at different categories of spend and how we  
12 can look at those categories of spend to improve the  
13 efficiency and effectiveness of that spend.

14 MR. WEAFFER: Q: And I -- Mr. Morris, sorry, the IR  
15 referencing the long-term contracts is actually  
16 2.158.1.

17 MR. MORRIS: A: Yeah.

18 MR. WEAFFER: Q: And there, the statement in response:

19 "To be conservative in its business case,  
20 B.C. Hydro applied the 5 percent reduction  
21 to annual expenditures of 400 million,  
22 recognizing the existence of long-term  
23 contracts or the inability to change the  
24 cost of some items, such as health insurance  
25 and..."

26 So that's the source of that comment. So maybe you

1 can elaborate on that comment.

2 MR. MORRIS: A: Yeah. So, certainly I agree with that  
3 comment, and -- but it doesn't say that there's half  
4 the categories we don't expect to get any benefits  
5 from. It's saying that there are some categories, or  
6 some contracts, which would mean that we couldn't  
7 necessarily immediately get the benefits from those  
8 particular categories. But I don't think there's  
9 anywhere where we say it's anywhere as large as one-  
10 half of the total.

11 MR. WEAFFER: Q: Sorry if I misunderstood that, then,

12 MR. MORRIS: A: Sorry, I've now forgotten your  
13 question.

14 MR. WEAFFER: Q: And the issue was whether the other --  
15 whether it's a half, or -- certainly a percentage of  
16 those opportunities are not precluded by the existence  
17 of long-term contracts, so what -- can they be made at  
18 any time? Can the benefits be sought at any time, or  
19 are there other obstacles to pursuing benefits of the  
20 categories that you'd be pursuing procurement?

21 **Proceeding Time 2:15 p.m. T49**

22 MR. WEAFFER: Q: Well, different categories have  
23 different benefits, and different obstacles, if we can  
24 put it that way. Well, we try to -- we haven't done  
25 strategic sourcing yet. We've been doing pilot  
26 sourcing. And we are going to be proceeding into

1 strategic sourcing as we do that. Part of that is a  
2 prioritization exercise to see overall where the  
3 biggest benefits, and obviously we'd like to pursue  
4 the bigger benefits for long-term contracts. If you  
5 have a long-term contract in place, that doesn't  
6 preclude you from strategic sourcing that contract.  
7 But it would be an obstacle from the point of view if  
8 you've got a contract in place for five years, you  
9 either need to wait five years or you need to break  
10 that contract. In some cases it may be worthwhile to  
11 break the contract, but perhaps unlikely.

12 So that's the reason why I mentioned long-  
13 term contracts might be an obstacle. One of the  
14 reasons -- one of the things we're driving to is  
15 having more long-term contracts, so we would like to  
16 have long-term contracts.

17 MR. WEAFFER: Q: Can you give me some other examples of  
18 the obstacles that we would expect, prioritization of  
19 what you proceed with?

20 MR. MORRIS: A: Yes. Excuse me a second.

21 One of the obstacles might be, as I've  
22 mentioned earlier, we have a very decentralized  
23 process, processes at the moment, so we have lots of  
24 people throughout the company buying things. One of  
25 the advantages of that, the more decentralized the  
26 process, probably the bigger benefits you have going

1 forward by consolidating that spend in one place, but  
2 also the more difficult it is. If you've got a spend  
3 that's being done by one department, it's a lot easier  
4 to understand what that spend is and getting the  
5 details you need, understanding the supply market and  
6 so on. If you've got 200 different suppliers  
7 scattered perhaps all over North America with goods  
8 being acquired by 100 different departments, it's more  
9 difficult to coordinate that and manage that.

10 So that's, I think, a good example of where  
11 it's more difficult where you have more suppliers.  
12 But you have to balance that off with probably you've  
13 got bigger opportunities as doing that.

14 MR. WEAVER: Q: Let's go to the specific examples that  
15 you, as I understood, you have pursued. There were  
16 two pilot projects with, to date, transformers and  
17 wires and cables. So you're familiar with that?

18 MR. MORRIS: A: That's correct.

19 MR. WEAVER: Q: Can you tell me for those two projects,  
20 what was strategic outsourcing? What specifically was  
21 done differently with those two examples as opposed to  
22 procurement in the past for those services?

23 MR. MORRIS: A: I'm going to focus, I'll focus on  
24 distribution transformers because it's -- I think it's  
25 an easier one to focus on. Essentially there we were  
26 buying transformers from a number of different

1 suppliers. Some of them we had fairly short-term  
2 contracts with. Some we didn't have contracts with.  
3 And the spend on those transformers was not always  
4 consolidated across the company.

5 We have what's called the materials  
6 management business unit that buys a lot of our  
7 electrical equipment and goods. So most transformers  
8 but not -- most distribution transformers but not all  
9 of them would be acquired through materials management  
10 business unit. So as part of the strat sourcing  
11 process, we consolidated all the acquisition of  
12 distribution transformers through materials  
13 management, put a specific contract manager in place  
14 to manage the contracts that we had, talked to people  
15 who acquired transformers across the company as --  
16 talked to our standards people. We have standards for  
17 distribution transformers. They weren't necessarily  
18 100 percent consistent. We spent time and effort  
19 getting consistent. We invited potential suppliers in  
20 for a discussion, asked them, among a number of other  
21 questions, what improvements they would like to see at  
22 Hydro because I think we acknowledged we're not the  
23 best customer in the world. So what things could we  
24 improve to make their life, if you like, a little bit  
25 easier, because if we make their life easier then we  
26 benefit from that as well. So we got a lot of

1 information.

2 We looked at what the market was for  
3 distribution transformers. Recently it's been  
4 difficult to get a lot of specific electrical  
5 equipment, because it is a world market and there's a  
6 shortage of certain types of steel in particular. So  
7 one of the things we wanted to ensure is that whatever  
8 contract we had with a supplier, we had the very  
9 specific steel in place for these transformers.

10 So we ended up going through a request for  
11 proposal process, got a number of proposals, came in,  
12 went through a comprehensive evaluation process, ended  
13 up awarding a long-term contract with a supplier, that  
14 has also provided some other benefits to us.

15 **Proceeding Time 2:20 p.m. T50**

16 The administration cost is now less. We  
17 now have, I would say, a comprehensive set of metrics  
18 in place for both supplier performance and our  
19 performance on that contract. And we had an instance  
20 not very -- fairly recently where somebody wanted a  
21 particular type of transformer, not within this  
22 contract. And we were able to go to that supplier,  
23 because they knew the type of thing we are -- and got  
24 a very timely response, because a big thing with  
25 transformers is when we have big winter storms, those  
26 are the transformers we need. So we need a very quick

1           turnaround in -- for those transformers, and we need  
2           them obviously located in the right places.

3                        So that's kind of a lightning go-through of  
4           that particular category.

5 MR. WEAVER:    Q:    Thank you, you were ready for that  
6           question, clearly, and I appreciate that.

7                        Now, if I look at BCUC IR 2.158.1, and I  
8           look at the average savings in the 80 categories, if  
9           you look at what was selected by B.C. Hydro as the  
10          test there, they're down to 1.2 percent.  What will  
11          determine whether B.C. Hydro pursues an initiative  
12          that may result in a more significant saving as  
13          opposed to what I would consider on the list a fairly  
14          low-percentage saving?  What's going to prioritize --  
15          what's going to cause B.C. Hydro to maximize the  
16          savings as opposed to pursue very small savings?

17 MR. MORRIS:    A:    So, there are a number of factors.  As  
18          I mentioned, we selected these two categories, pilot  
19          categories.  So the purpose of the pilot categories  
20          was really not only to meet our business needs but  
21          also to be able to test the process.  One of the  
22          reasons -- actually, I think the main reason we  
23          selected distribution transformers is -- was because  
24          most of it was within materials management business  
25          unit, and therefore it was easier than a category  
26          that's spread all across the company to do.  Also, we

1 had a -- we were coming to the end of actually a long-  
2 term contract, so the timing was right, and it worked.

3 And also, I should add, we actually got a  
4 savings percent of -- it was over 5 percent. I think  
5 it was 5.7 percent from these distribution  
6 transformers. So, we got significantly higher  
7 percentage than in the schedule, attached to 2.158.1.  
8 That is not, as you point out, not all dollar savings.  
9 Roughly I think a third of it is dollar savings, but  
10 two-thirds of it is improvements in energy efficiency.  
11 Transformers, like any piece of equipment, have an  
12 efficiency rating.

13 One of the things with the new contract is,  
14 we had a higher guaranteed performance from the  
15 supplier, which basically means if the transformer  
16 doesn't operate to that guaranteed efficiency, we will  
17 get a cash payment. The advantage of that to Hydro  
18 and to Hydro's customers is that we can then kind of  
19 plan our system knowing we're going to get that  
20 efficiency, which first of all means we're going to  
21 need to go to the market to buy less energy, because  
22 we're producing more energy through those  
23 transformers. So that's a big benefit, and over time  
24 will be a lot more significant than the actual  
25 purchase price of the equipment.

26 MR. WEAVER: Q: Thank you for that. And I did want to

1 go there, in the sense of capital -- as I understand  
2 the initiative, these are to reduce capital  
3 expenditures. But there's no budgeted direct  
4 reduction in operating costs. Do you not -- will you  
5 not be budgeting in the -- as a result of the  
6 initiative, operating cost savings? Or will those be  
7 tracked and --

8 MR. MORRIS: A: Where it's appropriate, we'll be  
9 budgeting operating cost savings. Transformers are  
10 capital assets, so they last somewhere between 35 and  
11 50 years, depending on the type of transformer, I  
12 believe.

13 So, essentially we buy transformers, they  
14 might go into inventory, then they'd go into service,  
15 so the benefits of the lower price in transformers,  
16 obviously there's a -- if you're buying at a lower  
17 purchase price, there's a purchase price benefit up  
18 front, but you only see that in our financial  
19 statements over the life of that asset through lower  
20 depreciation and finance charges. And that would be  
21 the case for the transformers.

22 MR. WEAFFER: Q: Okay. But looking to the list attached  
23 to BCUC IR 2.158.1, is it B.C. Hydro's position that  
24 these are all capital expenditures? Or would you  
25 agree that some of these also are operating  
26 expenditures?

1 MR. MORRIS: A: Oh, these are -- this is basically our  
2 annual spend for materials and services, split by  
3 category. So some of them are all capital, some of  
4 all operating, and some of them are both.

5 **Proceeding Time 2:25 p.m. T51**

6 MR. WEAFFER: Q: But are they all captured under the  
7 procurement enhancement?

8 MR. MORRIS: A: Yes, we would be looking at all  
9 categories over time.

10 MR. WEAFFER: Q: Capital and operating?

11 MR. MORRIS: A: Capital and operating.

12 MR. WEAFFER: Q: Okay, thanks.

13 The last area, building and civil  
14 infrastructure, and if I could turn you to Exhibit B-  
15 5, IPPBC IR 1.9.1, and here there's reference -- the  
16 last line of the response is that B.C. Hydro considers  
17 other opportunities for private sector involvement in  
18 respect of civil infrastructure. And I wanted to  
19 explore just what B.C. Hydro had in mind in terms of  
20 referencing that type of involvement.

21 Do you have any examples of what you'd be  
22 referring to there? And do you see any of that  
23 occurring in the test period?

24 MR. LINTUNEN: A: I believe this is a question more for  
25 Mr. Rodford or Mr. O'Riley dealing with civil  
26 infrastructure. We're dealing with buildings and

1 procurement here, so civil infrastructure is I think  
2 relating to the dams and other facilities like that.

3 MR. WEAVER: Q: So, okay, that response in no way deals  
4 with buildings.

5 MR. LINTUNEN: A: No.

6 MR. WEAVER: Q: Okay, thank you. With respect to the  
7 corporate facilities improvement program, that would  
8 be for this panel, I would assume?

9 MR. LINTUNEN: A: Yes, yes.

10 MR. WEAVER: Q: Okay. And here the response I am  
11 touching on is BCUC IR 1.73.4, and what I'd just like  
12 to explore is the timing and benefits of the CFI. Can  
13 you tell me if the density of staffing has been  
14 reviewed for every floor and all buildings occupied by  
15 B.C. Hydro?

16 MR. LINTUNEN: A: The benefits of density? Right now  
17 we've reviewed the benefits of density for the floors  
18 that we've done, and for those floors we've achieved a  
19 20 percent density benefit, which is roughly 12 people  
20 additional per floor. And for the floors that we're  
21 proposing to do, then we would -- when we design the  
22 floor and do the planning for the floor, we would then  
23 look at the achievement of densification for those  
24 floors. For the ones we've done so far, it's about  
25 \$1.8 million per floor, and that's a capital cost.  
26 And I think the annual cost of that translates into

1 depreciation and interestingly around 110,000, our  
2 savings have been about 140 to 150 thousand per floor.  
3 So each floor has actually produced a benefit, so.

4 MR. WEAFFER: Q: Have you done a review of all floors  
5 that B.C. Hydro does occupy? Has that been done?

6 MR. LINTUNEN: A: Yeah. In the sense of what was the  
7 density of those floors, the pre-existing density?  
8 Yes, in 2007 we did that, and it was an average of 56  
9 to 57 people per floor equivalent. Some of the larger  
10 floors -- there are podium stall floors, so we  
11 translated that into a floor equivalent of a tower.  
12 So it's about 50-60, 57 people per floor.

13 MR. WEAFFER: Q: And in terms of the target that B.C.  
14 Hydro is pursuing in terms of density of staffing  
15 improvement, does it represent a standard for  
16 commercial operations, or is it an aggressive high-end  
17 productivity level?

18 MR. LINTUNEN: A: In terms of the space usage, right  
19 now we're at about 220 square feet per person and  
20 we're going to 180 square feet per person. And the  
21 Lower Mainland and I think much of Canada, it's around  
22 200 square feet. So it's heading down because of the  
23 cost of space, the cost of real estate, I think that  
24 there's a trend towards densification. But I think  
25 that the technology is there to assist with that, so.

26 MR. WEAFFER: Q: So your target is 220?

1 MR. LINTUNEN: A: We are at 220. Our target is 180.

2 MR. WEAFFER: Q: I'm sorry, thank you.

3 MR. LINTUNEN: A: And I think that the current market  
4 average is 200 square feet per person.

5 MR. WEAFFER: Q: And when do you anticipate reaching  
6 that target of 180?

7 MR. LINTUNEN: A: At the end of the program.

8 MR. WEAFFER: Q: Which is --

9 MR. LINTUNEN: A: 2013.

10 MR. WEAFFER: Q: In terms of the program, and I'm not  
11 pursuing this for LTAP purposes, have you tracked -- I  
12 understand one of the objectives and one of the  
13 benefits of this initiative is energy savings. As you  
14 look at this program, are you tracking your DSM  
15 savings and improvements?

16 **Proceeding Time 2:30 p.m. T52**

17 MR. LINTUNEN: A: I'm not sure about DSM savings, but  
18 in terms of the per-floor consumption savings, we are  
19 tracking that. So it's been -- the first few floors  
20 we did, it was 30 percent savings per floor. After  
21 the densification it was close to 50 percent per  
22 person, so --

23 MR. WEAFFER: Q: And have you got targets for that, or  
24 is that just -- has that been the result, or --

25 MR. LINTUNEN: A: The target is 30 percent per floor.

26 MR. WEAFFER: Q: Can you tell -- is this project a

1 capital project, and can you tell me over what period  
2 of time it's being amortized?

3 MR. LINTUNEN: A: Yes, it's a capital project, and each  
4 element of it is amortized over a specific -- you  
5 know, over a period of time that's relating to that  
6 element. So the carpets would be amortized over a  
7 different period of time from the furniture, from each  
8 element. So --

9 MR. WEAVER: Q: And in terms of the cost of the --  
10 there's no overall budget for the corporate facilities  
11 improvement program that's being amortized over a  
12 period of time, just all the line items within it are  
13 being amortized, is that --

14 MR. LINTUNEN: A: I'm not an accountant, so I'm not  
15 sure.

16 MR. WEAVER: Q: Okay, that's fine. That's fine. And  
17 I'm sure those are my questions. Thank you, panel.

18 THE CHAIRPERSON: Thank you, Mr. Weaver.

19 And then we move to Commission counsel,  
20 cross-examination.

21 **CROSS-EXAMINATION BY MR. FULTON:**

22 MR. FULTON: Q: Good afternoon, panel. I'd like to  
23 begin with a few questions that arise from Exhibit C3-  
24 7, the COPE evidence. And so, if you could have  
25 Exhibit C3-7 before you, and I'd like to take you  
26 first to Attachment B, Schedule 4.4(d), page 9. And

1 it relates to procurement enhancement services.

2 MR. MORRIS: A: Yeah, we think we have that.

3 MR. FULTON: Q: Thank you. And there's a reference  
4 under the heading "Reporting" that:

5 "ABSBC will provide B.C. Hydro with written  
6 reports that show the calculation of the  
7 contracted savings, along with supporting  
8 documentation to verify such calculation."

9 Does B.C. Hydro have from Accenture the contracted  
10 savings reports for fiscal 2007 and 2008?

11 MR. MORRIS: A: We have the reports. I'm not -- I'm  
12 just trying to recall whether we have any for 2007. I  
13 don't think we do, because the savings only commenced  
14 in fiscal 2008.

15 MR. FULTON: Q: Okay. And --

16 MR. MORRIS: A: Yeah. And these savings are from the  
17 pilot sourcing exercise initiative.

18 MR. FULTON: Q: Right. That report has not been filed  
19 in these proceedings to your knowledge, Mr. Morris?

20 MR. MORRIS: A: No, it has not.

21 MR. FULTON: Q: Can I ask as an undertaking that the  
22 report be filed, please?

23 MR. CHRISTIAN: Subject to any confidentiality issues, I  
24 haven't looked at the report for that -- from that  
25 lens, but subject to that issue, we can file that.

26 **Information Request**

1 MR. FULTON: Q: Thank you. And I'd also like to have  
2 the detailed calculations, or assumptions regarding  
3 the contracted savings in terms of how they're arrived  
4 at.

5 MR. MORRIS: A: So, I just want to clarify. These are  
6 the savings from the pilot sourcing initiatives that I  
7 just talked to Mr. Weafer about, distribution  
8 transformers and wire and cable?

9 MR. FULTON: Q: Well, specifically there's a contracted  
10 savings -- there are written reports that show a  
11 calculation of the contracted savings along with  
12 supporting documentation to verify the calculation  
13 that ABSBC was to provide B.C. Hydro with, according  
14 to Exhibit C3-7.

15 MR. MORRIS: A: Correct. So, those contracted savings  
16 are the contracted savings that Hydro is obtaining  
17 from the pilot sourcing services.

18 MR. FULTON: Q: Right.

19 **Proceeding Time 2:35 p.m. T53**

20 MR. MORRIS: A: And those categories are distribution  
21 transformers and wire and cable.

22 MR. FULTON: Q: Okay. And that's all they relate to.

23 MR. MORRIS: A: That's all they relate to, that's  
24 correct.

25 MR. FULTON: Q: All right. And so, subject to the  
26 issues of confidentiality that Mr. Christian has said

1           there may -- that may exist, I'm seeking that  
2           information.

3 MR. MORRIS:   A:   I may be speaking out of turn here, but  
4           those do include third party prices for individual  
5           materials from our suppliers. So I think that a lot  
6           of that is confidential information.

7 MR. FULTON:   Q:   Do contracted savings mean the same as  
8           productivity savings?

9 MR. MORRIS:   A:   Contracted savings in this instance, is  
10          that what you're referring to?

11 MR. FULTON:   Q:   Yes.

12 MR. MORRIS:   A:   Contracted savings are calculated in  
13          accordance with the pilot sourcing methodology. So  
14          there's a methodology that we go through. That  
15          methodology will change depending on many factors. So  
16          a different category would have different  
17          calculations. For instance, we may have a saving in  
18          purchase price, we may have a saving in administration  
19          costs, as I mentioned, in distribution transformers.  
20          There are benefits from efficiency gains. So it could  
21          be any number of things which would depend on the  
22          category. So it's not the same as productivity.

23 MR. FULTON:   Q:   Yes, thank you. I was going to ask you  
24          to confirm that. It sounded like it wasn't the same  
25          as productivity.

26                                    At page 5 of the COPE evidence there is a

1 statement about the complicated practice of statement  
2 of works has added layers of contract management and  
3 compliance efforts and scenarios by which employees  
4 are waiting to perform simple services. And are you  
5 able to provide by way of undertaking an example of  
6 the statement of work?

7 MR. CHRISTIAN: I'm not seeing any of the witnesses  
8 suggesting that such a thing doesn't exist. I think  
9 we can do that.

10 MR. LEONARD: A: Yeah, I think what we would want, we'd  
11 have to obviously is just make sure that it was  
12 representative of the typical statement of work. But,  
13 you know, statements of work are sort of typical in  
14 outsource again and a best practice. So we would have  
15 no problems providing that.

16 MR. FULTON: Q: Thank you. And basically what I'm  
17 looking for one is an example of one in the  
18 procurement area.

19 MR. LEONARD: A: Yeah, I mean, subject to review we  
20 would see what we could -- yeah, absolutely.

21 MR. FULTON: Thank you.

22 **Information Request**

23 MR. LEONARD: A: If one can't be provided in  
24 procurement, is there another area you'd be interested  
25 in?

26 MR. FULTON: Q: Well, if one can't be provided in

1 procurement, I'd like to know why it can't be provided  
2 for procurement. And then, yes, you can provide one  
3 for another area as well, but my focus at this point  
4 is on the procurement side.

5 MR. CHRISTIAN: Yeah, I understand.

6 MR. FULTON: Q: Thank you. At page 6 of the COPE  
7 evidence, there's a discussion about Hydro receiving  
8 net benefits from all services performed by Accenture.  
9 And then it goes on to say:

10 "However, what is at issue here is the fact  
11 that Accenture has contractual  
12 responsibilities for procurement  
13 enhancement. Accenture has positions  
14 assigned to perform these services and  
15 responsibilities, but those very same  
16 positions are now being posted by B.C.  
17 Hydro."

18 Are those positions that are being posted the ones  
19 that you were referring to earlier this morning with  
20 Mr. Wallace, Mr. Morris, on the posting bulletins?

21 MR. MORRIS: A: To be honest I don't know because I  
22 don't know what positions was referred to in the COPE  
23 evidence.

24 MR. FULTON: Q: All right.

25 MR. MORRIS: A: But I would just like to add that some  
26 of these comments here are erroneous.

1 Proceeding Time 2:40 p.m. T54

2 MR. FULTON: Q: I'm sorry?

3 MR. MORRIS: A: Some of the comments here are  
4 erroneous.

5 MR. FULTON: Q: Okay.

6 MR. MORRIS: A: It talks about Accenture being  
7 responsible for the procurement enhancement  
8 initiative. That's incorrect. I think what they're  
9 referring to is their attachment, where they talk  
10 about procurement enhancement services, which is, I  
11 think, Attachment B to the evidence.

12 MR. FULTON: Q: Okay.

13 MR. MORRIS: A: And as I think I've mentioned before,  
14 the procurement enhancement services are limited to  
15 pilot sourcing services, which we've talked about  
16 earlier, and strategic sourcing services, if B.C.  
17 Hydro had opted to proceed with those services. That  
18 is quite different than B.C. Hydro's procurement  
19 enhancement initiative, which, as I've spent a lot of  
20 time today, probably talked to Mr. Wallace about, is  
21 the procure-to-pay project and strategic sourcing  
22 initiative.

23 MR. FULTON: Q: But you have made -- you have posted  
24 bulletins for new FTEs, for example, in the  
25 procurement area at B.C. Hydro over the course of the  
26 last 12 months.

1 MR. MORRIS: A: That is correct, in the course of the  
2 last month. So, as I think you're aware, we  
3 terminated the purchasing services from Accenture and  
4 consequent on that, and as disclosed in the  
5 evidentiary update we filed on September 29<sup>th</sup>, B.C.  
6 Hydro is in the process of filling approximately 27  
7 positions.

8 MR. FULTON: Q: Okay. And so, could you then produce,  
9 by way of undertaking, those job posting bulletins?

10 MR. MORRIS: A: They're -- yeah, they're on the public  
11 record, so --

12 MR. CHRISTIAN: Yeah, we'll get them.

13 MR. FULTON: Q: Well, they're not part of this record  
14 at this point, and that's what I'm looking for.

15 MR. MORRIS: A: Oh, okay.

16 MR. CHRISTIAN: The answer is yes, we'll file those.

17 **Information Request**

18 MR. FULTON: Q: And not only for the last month, but  
19 can you also do it for the last 12 months? And I'm  
20 only looking for the procurement area.

21 MR. CHRISTIAN: So, I'm not sure I follow the relevance  
22 of that line of enquiry. As I understand it, the  
23 evidence that the positions that have been posted as a  
24 result of the termination of the procurement tower,  
25 that's happened fairly recently. And the witness has  
26 -- and we have agreed to provide those bulletins for

1           those new positions at Hydro, so I'm not clear on what  
2           the relevance to all procurement bulletins in the last  
3           12 months could have to the revenue requirement  
4           generally, or the issues being pursued here  
5           particularly.

6 MR. FULTON:   Q:   One of the points raised in the COPE  
7           evidence, whether it's correct or not, that will be  
8           tested on cross-examination, I'm sure, is the  
9           duplication of services. And so, we would like to see  
10          those postings for the last 12 months.

11 MR. MORRIS:   A:   So, just so I'm clear, which postings?

12 MR. FULTON:   Q:   In the procurement area.

13 MR. MORRIS:   A:   Okay. So, there are a number of  
14          procurement areas in Hydro that are not -- that Hydro  
15          provides its own procurement services, they're not  
16          provided by Accenture.

17 MR. FULTON:   Q:   Okay. Those --

18 MR. MORRIS:   A:   Would you like --

19 MR. FULTON:   Q:   I'm sorry, do finish.

20 MR. MORRIS:   A:   No, it's okay.

21 MR. FULTON:   Q:   The request relates to those bulletins  
22          that relate to the procurement activities that B.C.  
23          Hydro is going to be replacing as a result of the  
24          initiative.

25 MR. MORRIS:   A:   Okay.

26 MR. FULTON:   Q:   Okay. Do you -- does B.C. Hydro also

1 receive copies of any procurement postings that  
2 Accenture makes?

3 MR. CHRISTIAN: Sorry, I need to go back, because I think  
4 there was an unleft -- undertaking request --

5 THE CHAIRPERSON: I think there is now some confusion in  
6 the room here.

7 MR. CHRISTIAN: Exactly. I agreed that we would provide  
8 all the bulletins that B.C. Hydro is now posting,  
9 arising from its decision to terminate the procurement  
10 tower with Accenture.

11 MR. FULTON: Right.

12 MR. CHRISTIAN: And then there was an exchange here about  
13 whether or not there should be all B.C. Hydro  
14 bulletins relating to procurement generally to be  
15 filed, and I objected to that. As I understand Mr.  
16 Morris's evidence, you couldn't draw any kind of  
17 inference from what Hydro's posted generally with  
18 respect to procurement, because Hydro does its own  
19 procurement activities that are separate from  
20 Accenture's. And if that -- if that's right, then  
21 there isn't any reason to provide the full 12 months  
22 -- list of all the bulletins. And I just want to make  
23 sure that Mr. Fulton is not leaving, in his own mind,  
24 at least, that we accept an undertaking to provide all  
25 those. That is, 12 months worth of bulletins.

26 THE CHAIRPERSON: Mr. Fulton?

1 MR. FULTON: Yes. My principal concern here is to  
2 determine whether there is duplication in terms of the  
3 postings. And the positions that are being provided  
4 by Accenture, and those positions that are being  
5 posted by B.C. Hydro. And that's the reason why I'd  
6 like to see both over the 12-month period.

7 Now, where I didn't get to my -- an answer  
8 from Mr. Morris because my friend stood up, was  
9 whether or not B.C. Hydro gets copies of Accenture  
10 postings for those procurement positions as well.

11 **Proceeding Time 2:45 p.m. T55**

12 THE CHAIRPERSON: And that's the question to Mr. Morris.

13 MR. FULTON: Q: Morris, yes.

14 MR. MORRIS: A: So I'm not in the human resources area,  
15 but I'm not aware that we get copies of Accenture  
16 bulletins. There would be no reason why we would.  
17 We're two separate companies.

18 MR. FULTON: Q: Okay.

19 MR. MORRIS: A: I mean, we go to the market and I  
20 assume they would also go the market as well.

21 THE CHAIRPERSON: Perhaps if we try to still rephrase it  
22 to bring clarity for the Commission -- concern,  
23 concern is, Mr. Fulton, the potential for duplication.

24 MR. FULTON: Yes.

25 THE CHAIRPERSON: And the decision by B.C. Hydro to  
26 bring back the activities was made fairly recently.

1 And the outcome of that decision is the 27 positions  
2 which you certainly are willing to provide the  
3 bulletins. But over what period of time would these  
4 bulletins have been there?

5 MR. MORRIS: A: The 27 positions were bulletined over  
6 the last month.

7 THE CHAIRPERSON: So they are very recent.

8 MR. MORRIS: A: They are very recent.

9 THE CHAIRPERSON: Yes. And, but what Mr. Fulton then  
10 wants to establish that -- because we are looking at  
11 the whole test year, F2009, just to make sure we have  
12 a record, that there were or there were not any other  
13 bulletins linked to procurement activities that  
14 Accenture was supposed to be performing up to that  
15 decision date? Is that correct?

16 MR. FULTON: Yes, that's correct, Madam Chair, thank you.

17 MR. CHRISTIAN: Well, then I go back to my objection  
18 which is I can't see how that can be probative to  
19 anything, unless there's on the record job postings by  
20 Accenture. And there is some evidence to suggest that  
21 the terminology used by Accenture to describe their  
22 jobs is the same as B.C. Hydro used to describe your  
23 jobs. And then you have the entire list, and then you  
24 do a comparison of bulletins. This line of inquiry it  
25 seems to me isn't going to help anybody understand  
26 whether or not in fact there is some redundancy of

1 function between Hydro and Accenture in this area or  
2 otherwise.

3 MR. FULTON: Well, where we are is we haven't heard from  
4 the COPE witness yet. There is evidence from COPE  
5 that there's duplication. That's the purpose of this  
6 line of questioning, to ascertain whether there is or  
7 not.

8 THE CHAIRPERSON: From B.C. Hydro's perspective.

9 I think, Mr. Fulton, what I would suggest,  
10 that is maybe slightly early, but I'm suggesting that  
11 we are taking our afternoon break, and then the Panel  
12 will come back to you then with the ruling whether we  
13 let B.C. Hydro objection stand and limit it to the  
14 very recent month, or whether to expand the request  
15 into the 12 months as Mr. Fulton would like to see.

16 MR. FULTON: All right, thank you.

17 THE CHAIRPERSON: So we'll return in 15 minutes.

18 (PROCEEDINGS ADJOURNED AT 2:49 P.M.)

19 (PROCEEDINGS RESUMED AT 3:04 P.M.)

T56/57

20 THE CHAIRPERSON: Please be seated.

21 During the break the Commission Panel  
22 discussed -- debated the submissions of both Mr.  
23 Christian and Mr. Fulton. The Panel also wants to  
24 remind everybody again that one of the decisions we  
25 made yesterday regarding the process, we decided to  
26 accommodate COPE, Mr. Oulton, and because of that one

1           exception we made, Mr. Fulton is now doing the cross-  
2           examination earlier than he would usually do. And I  
3           think this is a classic case when one makes one  
4           exception, then it may force you to make another  
5           exception.

6                        So the Panel has concluded that it is more  
7           efficient and, I think that we as a Panel might be  
8           informed tomorrow to deal with this. So what we  
9           recommend is that we let -- on this issue, we drop  
10          this for now, and then we'll let Mr. Oulton tomorrow  
11          do his cross-examination of this panel, and then after  
12          that, that's the second exception, then Mr. Fulton  
13          will have an opportunity to come back with this  
14          question, if you still feel that that information is  
15          required and then the Panel will deal with that.

16                        Is that reasonable?

17 MR. FULTON:    Thank you.

18 MR. FULTON:    Q:    I'd now like to discuss founding  
19           partner benefits and CIS credits, and I've provided to  
20           your counsel this morning an extract from the B.C.  
21           Hydro fiscal 07/08 revenue requirements application,  
22           pages 522 and 523.

23 MR. CHRISTIAN:   And my apologies. Mr. Fulton did give  
24           that to me this morning, and I utterly neglected to  
25           give it to my witnesses. So, if I can --

26 COMMISSIONER MILBOURNE:   Why is that?

1 MR. CHRISTIAN: Indeed. My bad. So if I can ask for the  
2 witness to have a few moments to review the document,  
3 thank you.

4 THE CHAIRPERSON: We are just human.

5 MR. FULTON: And while they're considering it, Madam  
6 Chair, if that document might be marked Exhibit A2-20,  
7 please.

8 THE CHAIRPERSON: Marked A2-20.

9 (EXCERPT FROM B.C. HYDRO F07/F08 REVENUE REQUIREMENTS  
10 APPLICATION, PAGES 5-22 AND 5-23, MARKED EXHIBIT A2-  
11 20)

12 Proceeding Time 3:08 p.m. T58

13 MR. FULTON: Q: And it would probably save you reading,  
14 panel, if you just focus on lines 1 to -- or 2 to 4,  
15 on page 5-22 at this point.

16 Okay. And so I'd like to hone in on the  
17 founding partner benefits, and B.C. Hydro shares in  
18 those -- or shares in the future revenue stream  
19 developed by Accenture in the area of utility  
20 outsourcing in North America, and that sharing is what  
21 are the founding partner benefits, correct?

22 MR. LEONARD: A: Yes, that's correct.

23 MR. FULTON: Q: Now, can you describe for us how that  
24 works? In other words, the conditions under which the  
25 founding partner benefits are received?

26 MR. LEONARD: A: The founding partner benefits are

1       designed to reflect where B.C. Hydro has provided some  
2       assistance to Accenture in securing a new client in  
3       the utility business. So that may take the form in a  
4       couple of different ways. First might be the hosting  
5       of a potential Accenture client at one of our  
6       facilities. Call Centre would come to mind. They  
7       will bring -- from time to time they will bring  
8       potential clients to our call centre to see the  
9       operations, to see the various systems that they have,  
10      that they use in place, that type of thing.

11               Secondly it may be around having to provide  
12      a reference or have a conversation with a potential  
13      client around Accenture's capabilities or performance,  
14      those types of things. I've had those conversations  
15      either in person where the client has been here, or in  
16      the way of a conference call. And so those are sort  
17      of the general areas by which these founding partner  
18      benefits would be derived.

19               If Accenture is successful in securing that  
20      client, then B.C. Hydro is entitled to payment for  
21      providing that, for providing those services in the  
22      effect of hosting and/or providing references.

23   MR. FULTON:    Q:   All right, so that's the revenue  
24                    stream.

25   MR. LEONARD:   A:   Correct.

26   MR. FULTON:    Q:   Results.

1 MR. LEONARD: A: Yes, that's correct.

2 MR. FULTON: Q: And B.C. Hydro did not receive any --  
3 or will not receiving any founding partner benefits  
4 for either fiscal 2009 or fiscal 2010, correct?

5 MR. LEONARD: A: No. That's not correct. Accenture is  
6 in direct control of this in the sense of they are the  
7 ones that are going out and seeking new clients. We  
8 don't forecast founding partner benefits, because we  
9 don't know if success -- Accenture is going to be  
10 successful in bringing on a client in a particular  
11 year. We only record the actuals when they're  
12 actually successful, and we receive those payments.

13 **Proceeding Time 3:11 p.m. T59**

14 MR. FULTON: Q: All right. And so if I could ask you--

15 MR. CHRISTIAN: And if I could add, I think the  
16 regulatory point, if I can, which the witness is  
17 probably -- I don't know if they're aware of, it  
18 doesn't seem Mr. Fulton's aware of it, but if you flip  
19 the Exhibit over, any founding partner benefits, when  
20 realized, actually go back to the benefit of  
21 ratepayers through the mechanism of a non-heritage  
22 deferral account. So that's the regulatory aspect of  
23 that story.

24 THE CHAIRPERSON: Thank you, Mr. Christian.

25 MR. FULTON: Q: Right, and that's fine. Thank you.

26 MR. FULTON: Q: Let me ask you to turn to BCUC IR

1           1.49.1. And the explanation you've given, Mr.  
2 Leonard, I think now explains why there is nothing for  
3 founding partner benefits in the response. So, do you  
4 have Exhibit B1-5, BCUC IR 1.49.1?

5 MR. LEONARD:   A:   Yes, I do.

6 MR. FULTON:   Q:   Okay. And you'll see that for fiscals  
7 '09 and '10, there are no amounts.

8 MR. LEONARD:   A:   There is no amounts forecasted.  
9 Correct.

10 MR. FULTON:   Q:   Okay. Thank you. Now, the -- and  
11 there are also no amounts forecasted for CIS credits  
12 either?

13 MR. LEONARD:   A:   Yes, that would be correct. We did  
14 not forecast any CIS credits.

15 MR. FULTON:   Q:   Okay. And can you just explain, then,  
16 the CIS credits, as I understand them, are a reduction  
17 of B.C. Hydro's CIS charges due to lower-than-forecast  
18 use of mainframe capacity? Would that be a good  
19 summary of CIS credits?

20 MR. LEONARD:   A:   No.

21 MR. FULTON:   Q:   Okay, so what are they, then?

22 MR. LEONARD:   A:   A CIS credit, again, is under the sort  
23 of similar vein of a marketing assistance fee, is a  
24 recognition of -- if Accenture is successful on  
25 bringing on a new utility client, using a customer  
26 information system that is similar to the one that



1 MR. FULTON: Q: Okay. And in terms of the potential  
2 benefits to a third-party utility from implementing  
3 the ABSU/B.C. Hydro CIS, is the benefit that it  
4 receives that it's getting a stable product or a  
5 product that has been used in service by a utility, so  
6 it's not involved in the start-up costs, as it were?

7 MR. LEONARD: A: I don't really feel like I'm in a  
8 position to comment on how Accenture would market our  
9 CIS system, or frankly how they market CIS systems in  
10 general. I'm not really in a position to discuss  
11 that.

12 MR. FULTON: Q: Yes, okay. And I'm not asking in terms  
13 of what -- how Accenture would market it. What I'm  
14 trying to understand is, what benefit -- B.C. Hydro  
15 surely must have some idea of what benefit a potential  
16 third-party source would have if it implemented the  
17 CIS that B.C. Hydro has with Accenture.

18 MR. LEONARD: A: So, I guess maybe a way to look at  
19 this is if I were a third-party utility looking at  
20 this, I mean one of the things that I would look to  
21 is, as you've referenced, a stable system that is  
22 tried and trued [sic], the ability to reference a  
23 client, reference the application, and have an  
24 understanding on, you know, its actual performance  
25 levels, those types of things. I think that would be  
26 what a third party would get in looking at a system

1 similar to ours.

2 MR. FULTON: Q: Okay, thank you. Now, I had some  
3 questions of Panel 2 on the risk and response program,  
4 and they were directed forward to this panel. One was  
5 simply confirmatory, and maybe, Mr. Stuckert, you're  
6 the one to answer this question.

7 MR. STUCKERT: A: I am.

8 MR. FULTON: Q: But can you confirm that the management  
9 action plans and the risk and response program  
10 disaster recovery and business continuity plans audits  
11 have been completed?

12 MR. STUCKERT: A: Not all the tasks have been  
13 completed. We put together a plan to establish a  
14 disaster recovery centre. We set up a plan to set up  
15 the processes around which we would carry out the  
16 disaster recovery plan and business continuity. We  
17 evaluated and implemented a disaster recovery centre  
18 in Calgary, as part of the plan. We have since  
19 developed all the policies and procedures, and the  
20 process around a -- what's referred to as a "cold  
21 site", which is, we have the system on tape and on  
22 disc so we can load in the event of a disaster or  
23 business continuity.

24 But part of the plan also was to move the  
25 mission critical applications, ones are really the  
26 point of our business, to more of what's referred to

1 as a hot site, which is running in real-time mode.  
2 We've only moved over one application out of eleven.

3 **Proceeding Time 3:19 p.m. T61**

4 MR. FULTON: Q: All right, thank you. B.C. Hydro is a  
5 part of the response to BCUC IR 1.71.2.2, advised that  
6 the current IT strategic plan -- or attach the current  
7 IT strategic plan which was dated May 2006. And in  
8 the response to the question, the response in part was  
9 that

10 "...B.C. Hydro was currently updating its  
11 five-year IT strategic plan to support  
12 forthcoming major IT initiatives. The plan  
13 is scheduled to be presented to the board in  
14 May 2008, and B.C. Hydro will file it as  
15 part of the evidentiary update."

16 Do you know whether that new plan was filed?

17 MR. STUCKERT: A: The new plan was not filed.

18 MR. FULTON: Q: Okay. And can you tell us why it  
19 wasn't filed as expected?

20 MR. STUCKERT: A: Yes, when we started doing the  
21 analysis, in terms of the strategy plan, we looked at  
22 the current state in a fair amount of detail. We are  
23 developing approximately nine different layers in the  
24 strategy. It ranges from the business process  
25 strategy down through to infrastructure, data,  
26 applications, business, continuity, collaboration and

1 so on, so a number of layers, and it's a much more  
2 complicated process than we originally envisioned.

3 However, we did establish some very key  
4 principles and directions with both the executive  
5 team, the board and through the auto risk management  
6 committee to establish some principles and directions  
7 on which the strategy will be governed. That is  
8 completed and we are following those. But we have not  
9 finished the detailed plans and deliverers for all the  
10 strategies.

11 MR. FULTON: Q: Are those plans and strategies  
12 something that could be filed?

13 MR. CHRISTIAN: I think the evidence was that the plans  
14 and strategies hadn't been finalized.

15 MR. FULTON: Q: Or the principles and strategies.

16 MR. CHRISTIAN: The principles I think hadn't been  
17 finalized, so that might be able to be filed. I don't  
18 know.

19 MR. STUCKERT: A: Yes, we could do that.

20 MR. CHRISTIAN: Then we will.

21 **Information Request**

22 MR. FULTON: Q: And is the plan, the shape of the plan  
23 that you're looking at, will it include budgets,  
24 cost/benefit analysis, analyses and deadlines as well?

25 MR. STUCKERT: A: The actual strategy is being driven  
26 by -- started by the business process strategies which

1       we've gone through with each of the organization units  
2       within Hydro to define sort of future business  
3       processes. And those cascade down to applications and  
4       data strategies and so on. Related to that, there is  
5       going to be implementation plans for each one of the  
6       strategies, yes. We will have costs and benefits as  
7       it relates specifically to the IT component, which is  
8       -- which I administer, the CIOs, which are  
9       infrastructure costs that I will bear and will have  
10      costs and benefits associated to it.

11               Some of the strategies being -- other  
12      strategies being developed will have some magnitude of  
13      cost and benefit, depending on how far we get down in  
14      terms of the business process review.

15   MR. FULTON:    Q:   Thank you. And do you have a new  
16      estimated time for finalizing the plan then?

17   MR. STUCKERT:   A:   The plan has been in its final draft  
18      and will go through a review process with the  
19      executive team inside Hydro, at which time it'll be  
20      revised or updated depending on what the review shows.  
21      And then we will present to the auto risk management  
22      committee of the board, and then at that time after  
23      that, it'll be published as a formal document. So I  
24      can't give you an exact timeframe because I don't know  
25      how long it'll take to get through the ATM board for  
26      processing.

1 MR. FULTON: Q: Right, and I'm not asking for  
2 exactitude. I'm asking for an estimated end date.

3 MR. STUCKERT: A: Well, the part that I manage and  
4 control, we expect the draft to be completed by the  
5 end of the calendar year and the approval process is  
6 inside of the executive team and the board, I don't  
7 know yet.

8 MR. FULTON: Q: Thank you.

9 Mr. Lintunen, my next question is for you  
10 and it relates to property taxes. And in Exhibit B-  
11 10, the evidentiary update of July, the statement  
12 appeared that the property assessments in 2009 would  
13 be higher than expected. You don't need to turn to  
14 that unless you want to.

15 MR. LINTUNEN: A: Okay.

16 MR. FULTON: Q: But would you agree with that summary?

17 MR. LINTUNEN: A: I haven't read that evidentiary  
18 update, but okay, subject to check, sure.

19 MR. FULTON: Q: Okay. And are you also expecting that  
20 the property assessments will be higher in 2010? And  
21 the reference, Mr. Lintunen, for my framing of the  
22 question about 2009, is at page 18 of the evidentiary  
23 update, section 5.3.

24 **Proceeding Time 3:24 p.m. T62**

25 MR. LINTUNEN: A: Okay. What was the question?

26 MR. FULTON: Q: All right. So, do you also expect that

1 the property assessments will be higher for fiscal  
2 2010?

3 MR. LINTUNEN: A: It depends to some extent on the  
4 timing of the review of the distribution assets by the  
5 Assessment Authority, and we're not sure. They're  
6 driving the timeline on that process, so our  
7 expectation is the outcome of that review will lead to  
8 some increases, because I think the last time that  
9 they did a review was in the mid-80s, and so -- but we  
10 have no indication from the Assessment Authority of  
11 exactly when they'll be finishing that review, so --

12 MR. FULTON: Q: All right. So have they started the  
13 review? No?

14 MR. LINTUNEN: A: As far as -- they've engaged us in  
15 discussions on it. I'm not sure if they're engaged a  
16 consultant or what stage they're at yet. We don't  
17 know for sure, so --

18 MR. FULTON: Q: All right, thank you. Next I have some  
19 questions on unsigned energy, and I was directed to  
20 either Panel 4 or Panel 5 on this one. So I'll try  
21 Panel 4 first, because some of these questions, I  
22 think, relate to the Accenture contract, Mr. Leonard.  
23 But maybe not.

24 MR. LEONARD: A: Let's give it a try.

25 MR. FULTON: Q: Let me refer you first to, then, to  
26 BCUC -- or to Exhibit B5-1, BCUC IR 1.8.1, Attachment

1 4, page 3. So, BCUC 1.8.1, Attachment 4, page 3. And  
2 there you'll see one of the bullets says:

3 "Unsigned energy, that is, energy used  
4 between move-out and move-in dates, but not  
5 billed to a customer, currently represents  
6 approximately \$3 million of lost revenue to  
7 B.C. Hydro annually. Although reported by  
8 ABSU and monitored by B.C. Hydro, there is  
9 no performance measure that captures the  
10 actions taken to minimize unsigned energy."

11 And --

12 MR. LEONARD: A: I'm not in a position to speak to this  
13 one.

14 MR. FULTON: Q: Okay.

15 MR. LEONARD: A: Probably best handled by Panel 5, I  
16 would believe, and probably Ms. Van Ruyven.

17 MR. FULTON: Q: All right.

18 MR. CHRISTIAN: Yeah, I think that's right. Ms. Van  
19 Ruyven's head of customer care and conservation, and  
20 has responsibility for billing issues.

21 THE CHAIRPERSON: Okay, thank you.

22 MR. FULTON: Q: And that's fine. I'll put those to Ms.  
23 Van Ruyven. But I'm hoping that you can then provide  
24 with the definition for the next one. There's a  
25 reference at page 20 of that same response, so  
26 Attachment 4, page 20, to an ABSU dashboard. So you

1 see in that, the right cells, there is a request --  
2 well, in the left cell there's a request to report to  
3 identify all amounts not billed and amounts directly  
4 written off in CCS, and then it says, "Completed," and  
5 then the answer refers to a dashboard.

6 MR. LEONARD: A: I'm sorry, what cell is this? Right  
7 here? Okay.

8 MR. FULTON: Q: So, it's the fourth cell from the top.

9 MR. LEONARD: A: Yeah.

10 MR. FULTON: Q: So I'm wondering if you could help us  
11 with what an -- the ABSU dashboard is.

12 MR. LEONARD: A: Okay.

13 MR. FULTON: Q: Or is that something that I should also  
14 ask Ms. Van Ruyven.

15 MR. LEONARD: A: I can give you a sort of a high-level  
16 overview of what an Accenture dashboard would look  
17 like, and then with respect to the particulars in it,  
18 it's probably best addressed by Ms. Van Ruyven.

19 MR. FULTON: Q: Okay.

20 **Proceeding Time 3:30 p.m. T63**

21 MR. LEONARD: A: So Accenture as part of their  
22 reporting requirements to B.C. Hydro produce something  
23 called a dashboard. And what it would do is it would  
24 track number of metrics. It may track some activities  
25 that they're taking. In particular with this one it  
26 would be the customer care dashboard, so it would have

1 things that are going on at the call centre, trending.  
2 It may have emerging issues that they're hearing from  
3 customers that are calling in. And they produce this  
4 dashboard, it's called the Customer Care Dashboard, on  
5 a monthly basis and it would have things like bad  
6 debt, trending on bad debt, those types of things.

7 MR. FULTON: Q: In that same cell there's a reference  
8 to CCS value adjustments by account report. Can you  
9 tell us what that report shows?

10 MR. LEONARD: A: So that would probably be best  
11 addressed by Ms. Van Ruyven.

12 MR. FULTON: Q: Thank you. All right, I next want to  
13 turn to some questions on Exhibit B-20 that Mr.  
14 Wallace spent some considerable time with this  
15 morning. And the first question relates to page 4,  
16 Mr. Morris, and the net annual increase in costs of  
17 \$165,000. So B-20, page 4.

18 MR. MORRIS: A: Okay, I have it.

19 MR. FULTON: Q: And you told Mr. Wallace that that  
20 number was the number or the difference for fiscal  
21 2009.

22 MR. MORRIS: A: I think what I meant to say, in any  
23 case, was that was -- that's a budget for fiscal 2009.

24 MR. FULTON: Q: Okay.

25 MR. MORRIS: A: It says, "The annual cost differences  
26 are budgeted as follows".

1 MR. FULTON: Q: Okay. And so what is the corresponding  
2 number for 2010?

3 MR. MORRIS: A: The budget amount for 2010 is basically  
4 that amount plus approximately 100,000.

5 MR. FULTON: Q: So there would be -- it would be a net  
6 annual increase in costs then of 265,000?

7 MR. MORRIS: A: Just using the budget numbers. But as  
8 I said to Mr. Wallace this morning, their forecasts  
9 would be -- assuming we had not terminated the service  
10 from Accenture would be higher because of increased  
11 volume of transactions.

12 MR. FULTON: Q: And when the business case was  
13 prepared, did B.C. Hydro also consider what the  
14 increases might be, or what the percentage increase  
15 might be going forward after 2010?

16 MR. MORRIS: A: The percentage increase, and if we had  
17 not terminated the Accenture services?

18 MR. FULTON: Q: No. If you have terminated.

19 MR. MORRIS: A: Well, those costs would not be incurred  
20 if we --

21 MR. FULTON: Q: Pardon me. You terminated, so you've  
22 got the increase that you've shown for fiscal 2009.  
23 You've told us what it may be for 2010 with the  
24 caveats that you've given.

25 MR. MORRIS: A: Correct.

26 MR. FULTON: Q: So going forward, when you prepared the

1 business case, did you look at what the costs might be  
2 going forward?

3 MR. MORRIS: A: We didn't think it was necessary to do  
4 that.

5 Proceeding Time 3:35 p.m. T64

6 MR. FULTON: Q: Okay. Well, you're making a decision  
7 at this point presumably because you think that there  
8 will be some benefits down the road.

9 MR. MORRIS: A: Correct. So, the benefits -- I mean,  
10 this is a part of the overall business case for the  
11 procure-to-pay project that we've also talked  
12 extensively about. These -- the costs that we pay to  
13 Accenture for purchasing services, basically there's a  
14 base cost and then there's an increase based on  
15 volume. Based on our forecast of volumes, which we  
16 have done some forecasts before going forward, those  
17 costs would continue to grow, based on the balance of  
18 our procure-to-pay business case and the analysis  
19 we've done.

20 One of the reasons we're doing that is, we  
21 expect the number of -- if you like, the people or  
22 what we can do with the volume of people, will  
23 actually gradually decline. So, once we had done  
24 that, there was actually no point in calculating the  
25 detailed costs that we would have paid to Accenture  
26 for 2011 forwards.

1 MR. FULTON: Q: Right. Now, in the absence of the  
2 repatriation, are you able to tell us what the  
3 procurement ABSU costs would have been for fiscal  
4 2010?

5 MR. MORRIS: A: I believe that's confidential  
6 information. But it would have been --

7 MR. FULTON: Q: Right. Well, if it's confidential, I  
8 don't want you to say on the record.

9 MR. MORRIS: A: Okay.

10 MR. FULTON: Q: Can you tell us, though, whether or not  
11 the ABSU costs increased in the last three fiscal  
12 years in a range that was close to CPI of two percent?  
13 Or would it have been greater?

14 MR. MORRIS: A: The costs for procurement have actually  
15 increased significantly higher than CPI. And  
16 essentially, as I mentioned there, there's kind of a  
17 base cost, and then there's a cost increase by --  
18 based on volumes. For the last two years, our volumes  
19 -- and there are two drivers of volumes, but they have  
20 both increased significantly. So that's moving our  
21 costs significantly above CPI.

22 MR. FULTON: Q: Okay, thank you. Now, would you agree  
23 with me, subject to check, that B.C. Hydro is  
24 requesting a continuation of Order G-17-08 allowing a  
25 deferral of the 8.2 million for the fiscal 2008 PEI  
26 costs, plus interest, to the deferral of PEI

1 expenditures expended in fiscal 2009, '10 and '11?

2 MR. CHRISTIAN: Well, it's not so much an objection I'm  
3 going to make, but really that it's not an appropriate  
4 question for the witnesses to explain the accounting  
5 treatment that Hydro seeks. That's something I can  
6 provide in argument, or a undertaking response, but I  
7 don't think the witnesses should have to go back -- or  
8 try and rely on their memory of what the negotiated  
9 settlement agreement was from 07/08 and translate that  
10 into the relief we request into this current  
11 application. It's a regulatory question, and so --

12 MR. FULTON: All right, then you can deal with that in  
13 argument, then, Mr. Christian.

14 MR. FULTON: Q: I'd like to return to the COPE evidence  
15 again, so Exhibit C3-7, page 7.

16 And I'll ask these questions, Madam Chair,  
17 mindful of the ruling that the Panel made earlier on  
18 C3-7, and so if there are issues then we can deal with  
19 these later as well.

20 THE CHAIRPERSON: In the same fashion. Thank you.

21 MR. FULTON: Yeah. And maybe that's what we should do,  
22 rather than ask my questions now. I can deal with  
23 them when I ask the other questions on C3-7.

24 THE CHAIRPERSON: Let's proceed as you propose.

25 MR. FULTON: Okay.

26 MR. CHRISTIAN: I'll just take the opportunity to say



1 of 34 of that attachment, towards the bottom of the  
2 page under section 7.5, risk management. The left-  
3 hand side it says "ABSU", the third one up from the  
4 bottom.

5 MR. FULTON: Q: Yes.

6 MR. MORRIS: A: Do you have that?

7 MR. FULTON: Q: Yes.

8 MR. MORRIS: A: And in the middle column it says "AMSA  
9 4.2" and on the right-hand side it says that's the  
10 risk and mitigation to renegotiate section 4.2 of AMSA  
11 to enable the future state of P2P. That's where it's  
12 referred to. We knew when the business cases were  
13 done that we'd have to renegotiate 4.2. We didn't  
14 know when we did the business case, that would mean  
15 the termination of the services from Accenture.  
16 Remember this business case was done approximately a  
17 year ago.

18 MR. FULTON: Q: All right. Thank you.

19 All right, so let's then return to Exhibit  
20 C3-7, which is the evidence of Ms. Farrell, and page  
21 7. This is a statement about Accenture having  
22 contractual responsibilities for procurement  
23 enhancement and the statement that goes on that  
24 Accenture has positions assigned to perform these  
25 services and responsibilities, that those very same  
26 positions are now being posted by B.C. Hydro. We

1           talked about that a little bit earlier today.

2 MR. MORRIS:   A:   Yes, and I disagree with the statement.

3 MR. FULTON:   Q:   Okay.  And does the AMSA provide for  
4           PEI costs or not?

5 MR. MORRIS:   A:   No.  The procurement enhancement  
6           initiative is as described in the previous document we  
7           were just talking about, the business case as included  
8           in Appendix H.  That describes the procurement  
9           enhancement initiative, which is two components, the  
10          procure-to-pay project and the sourcing.  I think what  
11          Ms. Farrell is referring to is one of COPE's other  
12          attachments, where they talk about procurement  
13          enhancement services, and I know that's confusing  
14          because we've got procurement enhancement services and  
15          procurement enhancement initiative.  So I think that  
16          has caused a lot of confusion.

17                    But the procurement enhancement services is  
18          described under Attachment D, Schedule 1 to her  
19          evidence, and that first page summarizes what the  
20          procurement enhancement services are.  And there are  
21          two aspects:  the pilot sourcing services and  
22          strategic sourcing services.  As we've discussed  
23          previously, Hydro has done work under the pilot  
24          sourcing services, but we have decided not to proceed  
25          with the strategic sourcing services.  Neither of  
26          those services are anything to do with the procure-to-

1 pay project itself. They're totally separate.

2 **Proceeding Time 3:45 p.m. T66**

3 MR. FULTON: Q: Okay. When did B.C. Hydro know that it  
4 may decide to take back the services that are being  
5 taken back?

6 MR. MORRIS: A: Just to be clear again, we're not  
7 "taking back" the services. We're terminating the  
8 purchasing services.

9 MR. FULTON: Q: All right, so -- all right, that's  
10 fine. When did B.C. Hydro come to a conclusion that  
11 it may terminate?

12 MR. LEONARD: A: As Mr. Morris has already spoken, the  
13 procurement enhancement initiative business case was  
14 being -- had been developed, it was being implemented  
15 in -- I believe it started to be implemented in  
16 January of this current year, calendar year. As we  
17 moved forward with the implementation, and looking at  
18 the implications of that, it became apparent that we  
19 would need to revisit, as had been envisioned in the  
20 business case, our agreement with Accenture, which is  
21 the Section 4.2 under AMSA. As we moved forward, we  
22 looked at that, and the decision was made that it  
23 would probably be -- to fully realize the benefits of  
24 both P2P, the procure-to-pay, as well as the strats  
25 forcing, that to fully realize those benefits, that  
26 Hydro would need to perform those functions in-house

1 and the decision was made in August to terminate the  
2 services from Accenture and a letter was sent on the  
3 13<sup>th</sup> of August.

4 MR. FULTON: Q: Of this year?

5 MR. LEONARD: A: Yes.

6 MR. FULTON: Q: Thank you. And will the decision to  
7 terminate affect the manner in which B.C. Hydro  
8 reports its costs from that which was reported in the  
9 spreadsheet models that were filed?

10 MR. LEONARD: A: It will have -- you know, we will have  
11 an impact in that the costs will be reduced. We will  
12 not have -- our costs will not be as high with  
13 Accenture because we will not be paying them for  
14 purchasing services, with it being terminated. In  
15 terms of the -- I mean, I think it's important to put  
16 it into context here that it is less than two percent  
17 of the overall expenditures with Accenture, and we  
18 don't feel it will impact the savings, the overall  
19 savings that were projected over the remainder of our  
20 -- the five years of the contract.

21 MR. FULTON: Q: And in terms of where the costs would  
22 show up in the schedules, where might I find them?  
23 Just as an example. In the spreadsheet schedules.  
24 Will they affect, for example, the FTEs?

25 MR. CHRISTIAN: I just want to get some clarity for my  
26 own ability to follow along this cross-examination.

1           Which schedules is my friend referring to?  
2   MR. FULTON:    They're the spreadsheet schedules that were  
3           filed --  
4   MR. CHRISTIAN:  Are we talking about appendix -- the  
5           first appendix to the application, and then the  
6           evidentiary update that shows those schedules?  Is  
7           that what we're referring to?  
8   MR. FULTON:    Yes.  
9   MR. CHRISTIAN:  Thank you.  
10  MR. LEONARD:    A:   So can you -- I'm sorry.  
11  MR. FULTON:    Q:   So the first appendix to the update.  
12  MR. MORRIS:    A:   So is that IR --  
13  MR. CHRISTIAN:  It's Appendix 1 to Exhibit B-10, is the  
14           most current version of the schedules I think my  
15           friend is referring to.  
16  MR. MORRIS:    A:   Yes, thank you.  
17  MR. CHRISTIAN:  Ms. Sofield reminds me that we have a  
18           more current version of Appendix 1 that was filed on  
19           October 1<sup>st</sup>.  And that was part of the Exhibit B-22.  
20           I'm not sure that the answer turns on which set of  
21           schedules we have.  
22  THE CHAIRPERSON:  Let's go with the most current one,  
23           then.  
24  MR. FULTON:    Q:   Okay, so we're at B-22, which is the  
25           October the 1<sup>st</sup> updates.  
26  MR. MORRIS:    A:   We're looking at Exhibit B-10?  I'm



1 facility improvements for that initiative are 6  
2 million in fiscal 2009 and 9 million in fiscal 2010?

3 MR. LINTUNEN: A: I see that, yes. That is correct.

4 MR. FULTON: Q: Do you know whether there was any  
5 provision for operating costs for field and corporate  
6 facility improvements in the fiscal 2008 RRA, Mr.  
7 Lintunen?

8 MR. LINTUNEN: A: I don't believe so.

9 MR. FULTON: Q: Can you tell me, that being the case,  
10 how field and corporate facility improvements were  
11 handled in previous years?

12 MR. LINTUNEN: A: This is a relatively new initiative,  
13 so the work that was done up to then was capital.

14 MR. FULTON: Q: And in your view, can any of the  
15 amounts for -- or can the amount for fiscal 2009 or  
16 the amount for fiscal 2010 be reasonably reduced?

17 MR. LINTUNEN: A: No, not in my view.

18 MR. FULTON: Q: Okay. And why is that?

19 MR. LINTUNEN: A: In order to be able to deliver on the  
20 benefits of the program, we need this funding.

21 MR. FULTON: Q: Now, you capitalized those items  
22 before. Why weren't they capitalized for fiscal 2009  
23 and fiscal 2010?

24 MR. LINTUNEN: A: So, again, that's -- I'm not sure of  
25 the accounting for it. However, there's some new  
26 elements in here that weren't there before. For



1 operating expenditures for the field and corporate  
2 facility improvements?

3 MR. LINTUNEN: A: I'm not sure what you mean.

4 MR. FULTON: Q: Well, let me try it this way. Is B.C.  
5 Hydro, despite that table, incurring capital and  
6 operating expenditures -- both capital and operating  
7 expenditures, for the field and corporate facility  
8 improvements?

9 MR. LINTUNEN: A: If you look at that top of the table  
10 where it describes the capital operation of the  
11 program?

12 MR. FULTON: Q: Right.

13 MR. LINTUNEN: A: Yes, that is correct.

14 MR. FULTON: Q: Thank you. Now, is B.C. Hydro  
15 undergoing a rebuild or construction at this time for  
16 the programs for which operating expenditures are  
17 being requested?

18 MR. LINTUNEN: A: The work that was outlined for fiscal  
19 '09 is ongoing, yes.

20 MR. FULTON: Q: Okay. And does the building  
21 revitalization program have a safety and reliability  
22 component to it as well?

23 MR. LINTUNEN: A: In what respect?

24 MR. FULTON: Q: Well, is it in part intended to address  
25 any safety concerns?

26 MR. LINTUNEN: A: Yes, it is. So if there's a -- we

1 engaged two different consultants over -- from about  
2 2005 through to 2007 and did a review of over 100  
3 sites around the province, and they did a visual  
4 inspection and it was done to a standard that's a sort  
5 of best practices guide on visual inspections. And  
6 included in that would have been identification of any  
7 sort of apparent safety issues, and we will be fixing  
8 those.

9 MR. FULTON: Q: Thank you.

10 Now, at page 5-23, line 3, one of the key  
11 benefits of the program is noted to be replacement of  
12 end-of-life building and interior office systems with  
13 a more flexible modular design. Is the change  
14 required because the systems are end of life? Is that  
15 what's driving the change?

16 MR. LINTUNEN: A: Yes, that is correct. That's one of  
17 the drivers is that the systems we have now are at the  
18 end of their life. They were designed in the eighties  
19 and procured at the end of eighties, early nineties,  
20 and they are then at end of their life. They are  
21 expensive to change, they're hard to replace and so  
22 on.

23 MR. FULTON: Q: Has B.C. Hydro considered a rental  
24 option in lieu of the corporate facility improvement  
25 program?

26 MR. LINTUNEN: A: In our -- we have not specifically

1 considered a rental option, no.

2 MR. FULTON: Q: Okay, and why not?

3 MR. LINTUNEN: A: Well, we went to market and there's a  
4 -- the components we buy are designed specifically for  
5 our needs. And there's a fair amount of change that's  
6 required over the years, so I guess we estimated that  
7 the best was to purchase it.

8 MR. FULTON: Q: Okay. And can I take it that B.C.  
9 Hydro would have done a cost/benefit analysis in  
10 arriving at its decision?

11 MR. LINTUNEN: A: On whether they rent or buy?

12 MR. FULTON: Q: Yes.

13 MR. LINTUNEN: A: I'd have to check that.

14 MR. FULTON: Q: Okay. If you could do that and provide  
15 that response to undertaking, please.

16 MR. CHRISTIAN: Will do.

17 **Information Request**

18 MR. FULTON: Q: And when you used the word "component",  
19 Mr. Linton, and would that be a factor, if you were  
20 determining to rent space?

21 **Proceeding Time 4:02 p.m. T69**

22 MR. LINTUNEN: A: I'm not sure what you mean.

23 MR. FULTON: Q: Okay. Okay, well, you -- when we  
24 talked about whether you looked at renting, as opposed  
25 to doing the improvements, I thought I heard you use  
26 the word "component" in your answer.

1 MR. LINTUNEN: A: Are you -- sorry, talking about  
2 renting space or are you talking about renting  
3 furniture?

4 MR. FULTON: Q: No, I'm talking about renting space.  
5 So would you have used "component" in the context of  
6 having to rent furniture along with that space? Or  
7 would you have -- wouldn't Hydro ordinarily have  
8 purchased its own furniture?

9 MR. LINTUNEN: A: Yeah, I'm sorry, I misunderstood your  
10 questions. I thought you were talking about rental of  
11 the furniture. Not rental of space.

12 MR. FULTON: Q: No. No, I was intending space.

13 MR. LINTUNEN: A: Okay, I'm sorry. So, in terms of  
14 whether we should rent space versus do this program,  
15 yes, we did look at that.

16 MR. FULTON: Q: Okay. And you did do a cost/benefit  
17 analysis.

18 MR. LINTUNEN: A: Yes, as I indicated earlier, the  
19 floors we've done right now, with the densification  
20 we've achieved, there's a net benefit to B.C. Hydro  
21 versus renting more space.

22 MR. FULTON: Q: All right. Thank you.

23 THE CHAIRPERSON: So the undertaking relates to the  
24 cost/benefit analysis of leasing space as opposed to  
25 just looking at that --

26 MR. LINTUNEN: A: Yes.

1 MR. FULTON: Yes, thank you, Madam Chair.

2 MR. LINTUNEN: A: And did I -- have I answered that  
3 question, or is there something to be done on that?

4 MR. CHRISTIAN: Well, that's a good question. I don't  
5 know the answer to that. I'm not sure that a  
6 cost/benefit analysis of the options of, on one hand,  
7 doing the densification of floors or the alternative,  
8 renting space, is analysis that is available to be  
9 produced.

10 MR. FULTON: And if it's not available, then that's fine.

11 MR. CHRISTIAN: Good.

12 MR. LINTUNEN: A: Thank you for that clarification.

13 MR. FULTON: Q: I'd now like to refer you to a witness  
14 aid that I provided to your counsel prior to the  
15 commencement of these proceedings. And it relates to  
16 Appendix J, capital expenditures, summary of projects  
17 and programs greater than \$5 million.

18 MR. LINTUNEN: A: I have that.

19 MR. FULTON: Q: A-2 --

20 MR. CHRISTIAN: Sorry, Mr. Fulton, are you referring to  
21 the witness aid that is based on Appendix J?

22 MR. FULTON: Yes.

23 MR. CHRISTIAN: Or are you asking for the witnesses to  
24 turn to Appendix J, which is quite a separate  
25 document?

26 MR. FULTON: No, I'm referring to the witness aid that I

1 provided to you before the commencement of the  
2 proceedings.

3 MR. CHRISTIAN: Thank you. I did get it, I distributed  
4 it, but it appears that --

5 MR. LINTUNEN: A: I have a copy.

6 MR. CHRISTIAN: Oh, you do have a copy? Good. Does  
7 anybody else of the witnesses require a copy? Thank  
8 you.

9 MR. FULTON: Q: Okay. And just for the record, this is  
10 a document that lists the capital expenditures with a  
11 gross value over \$5 million that are to be carried out  
12 through the test period, and the details of those  
13 projects are described in Appendix J, pages 4 to 120  
14 of the application. And the projects are grouped, and  
15 those projects that I wish -- that I believe this  
16 panel is responsible for are page 3 of 4, "information  
17 technology", and pages 3 of 4 and 4 of 4, "properties  
18 and other". Correct?

19 MR. LINTUNEN: A: Yes, I have the "properties and  
20 other" part.

21 MR. FULTON: Q: Okay. And so, Mr. Stuckert probably  
22 needs the "information and technology" part.

23 MR. CHRISTIAN: It sounds like we do have a witness who  
24 requires a copy of the witness aid.

25 MR. FULTON: There you go.

26 MR. CHRISTIAN: Thank you very much.

1 MR. FULTON: Q: And the columns show the project name,  
2 the spend, the in-service date, phase underway and  
3 existing CPCN.

4 Now, you, Mr. Lintunen, have had an  
5 opportunity to review the witness aid prior to today?

6 **Proceeding Time 4:07 p.m. T70**

7 MR. LINTUNEN: A: Yes, I have.

8 MR. FULTON: Q: Okay. Are there any projects that are  
9 in other areas that you believe should more properly  
10 be in the properties in other area?

11 MR. LINTUNEN: A: Not that I'm aware of.

12 MR. FULTON: Q: And Mr. Stuckert, you've had an  
13 opportunity to review the witness aid before today?

14 MR. STUCKERT: A: I have.

15 MR. FULTON: Q: And are there any projects in other  
16 parts of Exhibit A2-2 that should be in the  
17 information and technology section, other than those  
18 that are listed in the information and technology  
19 sector?

20 MR. STUCKERT: A: No, there are no.

21 MR. FULTON: Q: Thank you.

22 I'm told, Madam Chair, that we have not  
23 marked Exhibit A2-21 yet. So if I could ask that it  
24 be marked.

25 THE HEARING OFFICER: Marked Exhibit A2-21.

26 THE CHAIRPERSON: Officially marked, thank you.

1           (WITNESS AID, HEADED "B.C. HYDRO...APPENDIX J...",  
2           PREPARED BY COMMISSION STAFF, (4 PAGES), MARKED AS  
3           EXHIBIT A2-21)

4 MR. FULTON:   Q:   And if you go to the far right-hand  
5           column under "Existing CPCN" you will see that that  
6           column contains Ys and Ns, and the Y denotes "yes" to  
7           a CPCN, and the N is "no" for an existing CPCN.

8 MR. LINTUNEN:   A:   I see that.

9 MR. FULTON:   Q:   Mr. Lintunen, are there any projects in  
10          the properties and other area that you believe should  
11          have a Y rather than an N, or that you know should  
12          have a Y rather than an N?

13 MR. CHRISTIAN:   Well, I'm not sure what the question  
14          means. If the question is, are any of these projects  
15          certificated already, certificated through the CPCN  
16          process, is that what the question is? Or is the  
17          question should be there be an application for CPCN in  
18          respect of the former? The former is a fair question,  
19          the latter I submit is not.

20 MR. FULTON:   Q:   And it is the former.

21 MR. LINTUNEN:   A:   No, they are not. There's no CPCN  
22          for any of the projects.

23 MR. FULTON:   Q:   And same question for you, Mr.  
24          Stuckert, under "Information Technology"?

25 MR. STUCKERT:   A:   No, they're not.

26 MR. FULTON:   Q:   If we look first then to the

1 information and technology section, to your knowledge,  
2 Mr. Stuckert, are there any of those projects that Mr.  
3 -- that B.C. Hydro anticipates it will be seeking a  
4 CPCN for?

5 MR. STUCKERT: A: No.

6 MR. FULTON: Q: Okay. And same question for you, Mr.  
7 Lintunen, under the projects.

8 MR. LINTUNEN: A: Not that I'm aware of. But I'm not  
9 -- I don't, you know, make the decisions around CPCN,  
10 so that's --

11 MR. FULTON: Q: Okay. Now, in terms of the information  
12 and technology projects, Mr. Stuckert, are there any  
13 -- or have cost/benefit analyses and/or feasibility  
14 studies been done for those projects at this point?

15 MR. STUCKERT: A: Are you referring to the phase which  
16 they're in? Definition phase and identification phase  
17 are both analysis phases. We would not have done a  
18 formal business case on it at this point.

19 MR. FULTON: Q: Okay. And I see for the properties and  
20 other, Mr. Lintunen, that there are two that have  
21 implementation designations. Would cost/benefit  
22 analyses have been done on those projects?

23 MR. LINTUNEN: A: I presume you're referring to  
24 building revitalization program and Central Park  
25 Place?

26 MR. FULTON: Q: Yes.

1 **Proceeding Time 4:12 p.m. T71**

2 MR. LINTUNEN: A: On a building revitalization program,  
3 that's made up of hundreds of smaller items, around  
4 the portfolio, so there would be no sort of cost-  
5 benefit analysis across those hundreds of small items.  
6 But each one would have an appropriate level of  
7 business case and approval for them before it was  
8 done.

9 MR. FULTON: Q: And just returning to you, Mr.  
10 Stuckert, I see that lines 69 and 70 are designated  
11 "implementations".

12 MR. STUCKERT: A: Yes.

13 MR. FULTON: Q: So, do those have cost-benefit analyses  
14 or feasibility studies?

15 MR. STUCKERT: A: The property, the PIM assistant does  
16 have a cost/benefit. It is in the second year of an  
17 implementation. The enterprise data warehouse  
18 project, I am not familiar with it, it's sort of quite  
19 a while ago. I would suggest it does have that.

20 MR. FULTON: Q: Now, in terms of information technology  
21 projects, do you have an approval amount yourself that  
22 you can approve up to?

23 MR. STUCKERT: A: With respect to the projects that are  
24 on the list there, many of those projects are  
25 business-driven. They come from the business units  
26 themselves, which will have gone through an approval

1 process within there. I do have a role to advise and  
2 sign off on technology and architecture-related  
3 things. With respect to the projects that are  
4 specific to information technology, yes, I do. My  
5 signing authority is up to a million dollars.

6 MR. FULTON: Q: And after -- beyond a million dollars,  
7 where does the signing authority go?

8 MR. STUCKERT: A: It goes to the CFO and if it's  
9 broader than that, it goes to the CEO, and if it's  
10 larger than that, it goes to the Board.

11 MR. FULTON: Q: Okay. And so the CFO is what level?  
12 Do you know?

13 MR. STUCKERT: A: No, I do not.

14 MR. FULTON: Q: And do you have sign-off authority on  
15 -- as well, Mr. Lintunen, for the projects that fall  
16 within the properties and others?

17 MR. LINTUNEN: A: Yes, I do. All of these projects,  
18 when they would be fully implemented, are beyond my  
19 signing authority, except I think the building  
20 revitalization is -- there's a lot of small projects  
21 in there, so many of those would be within my signing  
22 authority.

23 MR. FULTON: Q: And your signing authority is --

24 MR. LINTUNEN: A: Is three million, oh, it depends.  
25 It's three million within plan, and \$50,000, I think,  
26 ex-plan.

1 MR. FULTON: Q: Does B.C. Hydro have a current capital  
2 authorization request procedural manual?

3 MR. LINTUNEN: A: I'm not sure if there's a capital  
4 authorization request procedure manual. We do have a  
5 expenditure authorization request process and policy  
6 for that, yes. I believe that may have replaced a  
7 number of the earlier ones.

8 MR. FULTON: Q: And can you file a sample of that as an  
9 undertaking?

10 MR. LINTUNEN: A: A sample of the process?

11 MR. FULTON: Q: Yes.

12 MR. LINTUNEN: A: It's -- yeah, it's one of our on-line  
13 documents that describes the process.

14 MR. CHRISTIAN: We can file that, if I understand it's --  
15 the request was for a manual that describes how to go  
16 through the capital authorization request. As I  
17 understand the evidence, there is a sample and some  
18 instructions on line with respect to the replacement,  
19 called the expenditure authorization request.

20 MR. LINTUNEN: A: Yes.

21 MR. CHRISTIAN: And it's the latter that's what you want?  
22 Then we'll file that.

23 MR. FULTON: Q: Yes, because I understand there isn't a  
24 manual.

25 MR. LINTUNEN: A: Not that I'm aware of. There may be  
26 something they have a hard copy of. The only copy I'm



1           what the risks are to B.C. Hydro for not spending on  
2           each of those projects?

3 MR. LINTUNEN:    A:    Some of the risks are described in  
4           Schedule J.  Each one of those projects has a  
5           description of the requirement -- of the need for the  
6           project, and some of the issues that it is addressing.  
7           So some, you know, it's a variety of risks from  
8           environmental risks to safety risks to just business  
9           risks and dealing with aging assets.  So I wouldn't  
10          say that there's just one common analysis for all the  
11          risks for each of the projects.  You have to kind of  
12          look at each one and define the risks associated with  
13          it.  So some of the buildings are in a tsunami zone,  
14          for example, so -- and some of the buildings are at  
15          the end of their life and in a seismic hazard zone or  
16          liquefaction zone.  And some of them are aged-back  
17          systems that have just reached the end of their life  
18          or aren't working.

19                        So each one we'd have to kind of look at  
20                        and get the risk associated with each project on its  
21                        own.

22 MR. FULTON:    Q:    Right, thank you.  When I sent the  
23           witness aid to your counsel, I also indicated that I  
24           was intending to ask each of the panels who had  
25           witnesses responsible for these various projects, if  
26           they could rank the projects with 10 being the highest

1 priority, and 1 being the least priority.

2 So I'll begin with you, Mr. Stuckert,  
3 because you have the fewest in number here. Are you  
4 able to do that?

5 MR. STUCKERT: A: Well, maybe I'd just like to  
6 establish some context to that. We started a capital  
7 IT project review process last September,  
8 August/September. We went to the business units to  
9 define and help them what projects should be underway.  
10 That totalled about 64 projects, valued at over \$100  
11 million in fiscal '09, and it was about the same  
12 number of projects, about \$89 million in fiscal '10.  
13 We went through a number of iterations with line  
14 management, middle management, executive management,  
15 in going through and establishing a list of  
16 priorities.

17 **Proceeding Time 4:19 p.m. T73**

18 Those projects are the top priorities,  
19 which you would now see in Appendix J, are the  
20 projects that were approved for proceeding on from  
21 fiscal '09 and fiscal '10. I would call all those 8,  
22 9s, and 10s in terms of priority, because the company  
23 has already gone through the effort of prioritization  
24 from the initial list.

25 MR. FULTON: Q: Right. And same question for you, Mr.  
26 Lintunen.

1 MR. LINTUNEN: A: And I guess I'd like to establish a  
2 better context. During the budget process there was a  
3 review done of the many reports that we had done of  
4 the buildings around the province, about a hundred  
5 buildings around the province, and we identified  
6 roughly 15 that we thought eventually, or due course,  
7 would require replacement or rebuilding for a number  
8 of reasons. For example, we may have an existing  
9 facility that's in a temporary facility -- is a  
10 temporary facility, like in Horn Payne or Maple Ridge  
11 or Chilliwack, where it's a growing area and there's a  
12 business need for it to be there, and right now it's  
13 in a trailer or it's in an unauthorized, really, kind  
14 of a facility, or is an end-of-life facility that's  
15 unsafe, like Port Alberni, which is in a tsunami zone.

16 And out of those 15 or so, we narrowed it  
17 down to about nine or ten, and then also on the  
18 building revitalization side, we identified a body of  
19 work that was fairly large, and we made a proposal to  
20 start fairly aggressively to pursue that body of work.  
21 And in discussions with the CFO, he suggested that we  
22 cut that body of work back by some 50 million, which  
23 we did, and the results of that cut is what's  
24 presented in here.

25 I guess I would look at the corporate  
26 facility improvements as a bit of -- in a bit of a

1 different light, because again, that is really  
2 addressing an end-of-life in a way that has a clear  
3 densification benefit. The other ones are a  
4 combination of end-of-life buildings and business  
5 requirement needs. So I guess in that context I would  
6 suggest that I've given some of these different  
7 ranges, from 8 to 9, or 7 to 8, and I think one is  
8 already done, so I didn't give that a range.

9 MR. FULTON: Q: Okay. So, if you -- so in terms of the  
10 ones that are 8 to 9 and 7 to 8, if you -- did you  
11 write down the ranges on --

12 MR. LINTUNEN: A: I've written it down here. So, for  
13 Maple Ridge, that's an 8 to 9 range. And for  
14 Chilliwack, 8 to 9. Port Kells is a 7 to 8. We had  
15 identified a need there, but arising from our Surrey  
16 campus review, and more recent information has shown  
17 that that Surrey campus review is still ongoing, so  
18 we're still sorting out what groups should go there.  
19 We've identified a building that needs to be evacuated  
20 there, but we're not sure what groups will go into  
21 Port Kells. Prince George --

22 MR. FULTON: Q: So what number did we give to --

23 MR. LINTUNEN: A: A 7 to 8.

24 MR. FULTON: Q: Right, okay.

25 **Proceeding Time 4:23 p.m. T74**

26 MR. LINTUNEN: A: Prince George, again, it's a 7 to 9.

1       There's some more urgent issues there that we're  
2       dealing with, but again, in discussions, especially  
3       with Mr. Rodford's group, they have some additional  
4       requirements that they've identified that we're in  
5       discussions with. They were looking at customer  
6       construction services having a larger presence there.  
7       So that'll probably take a bit longer for us to  
8       identify that full scope in the definition phase. So  
9       in the meantime we may have to do a few urgent things  
10      that are smaller to keep it going, but in terms of the  
11      replacement facility there's further work required  
12      than I had thought originally on that one.

13                 Horne Payne, that's a 9 to 10 because that  
14      is in a -- it's a number of temporary trailers in the  
15      side of an existing substation and it's a fairly  
16      urgent matter. The groups there take care of all the  
17      underground cables in the Lower Mainland amongst other  
18      things, and there's an urgent need to have a  
19      replacement facility there.

20                 Campbell River, again I described it in the  
21      8 to 9 range.

22                 Port Alberni, a 9 to 10 range again because  
23      it really is an end-of-life facility and it's in a  
24      tsunami zone, and we do need a replacement facility  
25      there right away.

26                 Surrey Campus Review, that's a 7 to 10,

1       because again there's a range of issues out at that,  
2       and it's in a definition phase. We did a stage 1  
3       review and there is several hundred people there --  
4       well, 15 business units are operating out of Surrey  
5       Campus, and the facilities are in various conditions,  
6       and the business requirements are still in a  
7       definition phase. But in the meantime we are again  
8       making sure that, you know, we take care of the life  
9       safety things and the more urgent matters.

10               Building revitalization, I've kind of  
11       bucketed into sort of three buckets. I think about a  
12       third of it is a 10. It needs to be dealt with right  
13       away. About a third of it is an 8 to 9, and about a  
14       third of it is a 7 to 8.

15               And the Dunsmuir facility improvement one,  
16       that's a 7 to 8. I mean in the sense of building it's  
17       not going to fall down, but I think that in that case,  
18       because of the requirements to densify or find  
19       optional space, I raised a priority of that as a 7 to  
20       8.

21               Central Park Place, we've done the two  
22       floors that we proposed to do during the test period  
23       already because of customer care and conservation  
24       requirements there, so I didn't write that one.

25               Edmonds Tower and the core building, I  
26       mean, I've rated as a 7 to 8.



1           technology, or --

2   MR. FULTON:   Q:   Functions.

3   MR. STUCKERT:   A:   The basic PeopleSoft financial system  
4           was implemented about 2002, 2003, I believe. It is a  
5           basic system that we actually over a period of time  
6           did a significant modification to, to meet B.C. Hydro  
7           requirements. What we want -- what we're doing today  
8           is we're going through a business process re-design  
9           project right now, as to incorporate not only the  
10          functions and processes we see for the future, but  
11          also to incorporate the requirements for IFRS.

12                   We are, in fact, looking at PeopleSoft as  
13           one of the solutions, but we are also looking at other  
14           options, just in case we want to find a better  
15           solution.

16                   That said, these functions would include a  
17           lot of end user functions, better reporting functions.  
18           What's referred to as "work flow", which is more an  
19           automated process, as a step-by-step accounting  
20           process and those nature.

21   MR. FULTON:   Q:   Okay. And do you know whether the  
22           release 9.0 will provide enhanced reporting to the  
23           extent that it can accommodate the IFRS reporting  
24           requirements?

25   MR. STUCKERT:   A:   That is some current analysis we're  
26           going on right as we speak today.

1 MR. FULTON: Q: Okay, so you don't know the answer at  
2 this point in time, but you're looking at it?

3 MR. STUCKERT: A: Correct.

4 THE CHAIRPERSON: I want to make sure I understood Mr.  
5 Stuckert. So you say you are still looking at other  
6 options as well?

7 MR. STUCKERT: A: Yeah, the team -- the accounting team  
8 in place today is really looking at all the business  
9 processes and reporting requirements, with a  
10 reflection of IFRS in particular, yes.

11 THE CHAIRPERSON: Thank you.

12 MR. FULTON: Q: Okay. So, I take it from that answer,  
13 then, that there may be a risk that you -- that B.C.  
14 Hydro needs to purchase a further release to  
15 accommodate the IFRS changes.

16 MR. STUCKERT: A: I'm not sure it would be necessarily,  
17 Mr. Fulton, a further release. I think the capital  
18 forecast that was done in the initial budget was  
19 fairly pessimistic, in current terms of capability and  
20 what changes had to be made to the software. So  
21 within the scope of the financial constraints, I think  
22 we're -- I think the project is probably fine, but,  
23 yeah, yes, the answer is we have to review their  
24 proposal -- or the processes to ensure that we can  
25 deliver to the future.

26 MR. FULTON: Q: All right, thank you.

1                   That, I believe, concludes my cross-  
2                   examination, Madam Chair, other than the question or  
3                   the series of questions that may arise as a result of  
4                   Mr. Oulton's cross-examination of this panel tomorrow.

5 THE CHAIRPERSON:   Thank you, Mr. Fulton. I see delighted  
6                   faces, I guess, for two reasons. It is 4:30, but it  
7                   seems like there are a number of people in the room  
8                   suffering from this hearing kennel cough, or kennel  
9                   cold, whatever it is. So we'll all have a good rest.

10                   And now a reminder, tomorrow morning, then,  
11                   it will be 8:30 start time, with COPE, and then an  
12                   opportunity for Mr. Fulton to come back and after  
13                   that, then, the panel questions, and then we will be  
14                   finished with this panel.

15 MR. FULTON:       Yes.

16 THE CHAIRPERSON:   Thank you very much. So, we'll return,  
17                   8:30.

18 (PROCEEDINGS ADJOURNED AT 4:31 P.M.)

19  
20  
21  
22  
23  
24  
25  
26

**Tab 7**

**Letter from Greg Reimer, Executive Vice President, BC Hydro to  
Adrian Dix MLA**

Greg Reimer  
Executive Vice President  
Transmission, Distribution & Customer Service  
Phone: 604 623-4041  
email: greg.reimer@bchydro.com

June 12, 2015

RE: Information Technology at BC Hydro

Dear Mr. Dix:

I am writing to provide more information about BC Hydro's Information Technology (IT) projects.

BC Hydro is a large hydroelectric utility with 1.9 million customer accounts, more than 5,000 employees and \$5.4 billion in annual revenues. Information Technology involves a significant and ongoing investment that is necessary to ensure that the company has the tools it needs to deliver electricity to every part of the province, serve its customers reliably and manage an ambitious capital program, while keeping up with technology advancements. These investments have made customer services more efficient and BC Hydro's business groups more productive.

It is not correct to describe IT as a single, \$500 million project. Information Technology is a business group that supports a multitude of systems that enable the functioning of a modern electrical utility. Its plans are filed as part of BC Hydro's revenue requirements applications and are roadmaps of the company's long-term technology needs. Like any large organization, BC Hydro updates and adjusts its Information Technology strategy and capital program periodically to account for current priorities, changing technology needs and budget limits.

Overall Information Technology spending has been on or below budget every year since Fiscal 2011. You have referred to the budget in the five-year period from Fiscal 2009 to Fiscal 2013. During that period, BC Hydro's cumulative IT budget, including capital and operating expenditures, was \$781.2 million. The actual cumulative expenditure for those years was under budget at \$777.9 million, or \$3.3 million under budget.

On specific projects, early budget projections can change as these projects are reviewed and refined to respond to emerging needs and priorities. When this does occur, increases to a specific project's budget are offset by reallocation of budgets from other IT projects.

BC Hydro's reported IT budget increased during Fiscal 2009 to Fiscal 2011 as a result of various technology and telecommunications expenses – which had previously been reported separately throughout various departments – being consolidated into a central IT budget.

BC Hydro's IT plans and budgets are presented to the BC Utilities Commission as a part of each revenue requirements application. BC Hydro lists all projects over \$2 million and provides a summary of projects over \$5 million including the timeline and costs. For projects over \$20

million, BC Hydro has committed to apply to the Commission for acceptance of the expenditures. The application must include a fulsome identification of needs, benefits and costs.

In 2011, government initiated a review of BC Hydro which resulted in changes to how IT projects are managed. BC Hydro has since established a Technology Governance Committee of the executive team to approve multi-year strategies and plans and implemented distinct project phases – identification, definition and implementation – with review and approval requirements between each phase.

Future projects are being implemented or planned to match BC Hydro's evolving business needs and are being managed within the existing IT budget envelope. Individual projects are being reviewed as part of BC Hydro's IT project review process.

For background, SAP is a company that offers enterprise software solutions. SAP has nearly 300,000 customers. Their software is used extensively in the utility industry, including most major utilities in Canada. BC Hydro adopted SAP as a common platform because it provided the best overall fit for BC Hydro and its business.

By adopting SAP, BC Hydro was able to avoid the time and expense of continually upgrading, customizing and acquiring technical support for multiple different software programs that were increasingly unable to adapt to changing requirements.

BC Hydro has adopted an incremental approach to rolling out SAP. The key advantage of an incremental rollout is that BC Hydro can optimize implementation to focus on certain areas as business priorities change. BC Hydro has implemented four major SAP modules supporting Customer Care, Financials, Human Resources and Project and Portfolio Management.

BC Hydro is planning to roll out additional SAP modules in three main areas: Supply Chain, Asset Management and Work Management. BC Hydro plans to implement the SAP Supply Chain module next and it intends to submit an application to the BC Utilities Commission this summer.

You have asked questions about some specific projects and we have provided information below.

### **Enterprise Financial Systems Project**

In Fiscal 2009, BC Hydro decided to upgrade its existing Enterprise Financial System, PeopleSoft Financials, as the current version was no longer supported by the vendor and no additional extended support was available to BC Hydro. At the time, upgrading the PeopleSoft with custom improvements for BC Hydro, at a cost estimate of \$7.2 million, was determined to be the best option.

However, two key factors resulted in BC Hydro re-defining the financial systems project to implement SAP financials instead. First, BC Hydro decided to adopt SAP – a single platform for backend systems – for the entire company. Therefore, it made sense to use SAP for financials as well. Second, BC Hydro had to adopt International Financial Reporting Standards and the BC Utilities Commission requirement that all reports be produced in a Uniform System of Accounts format. The SAP platform was able to support both of these requirements whereas meeting these requirements with the PeopleSoft program would have required even more customization.

As a result of these new requirements, BC Hydro re-defined the project as described in the June 2009 Financial Systems Replacement Project business case and it was completed in Fiscal 2011 at a cost of \$16.1 million.

### **Portfolio and Project Management Project**

BC Hydro is delivering a major capital infrastructure program averaging \$2.4 billion in annual investment. To support this ambitious program, BC Hydro had to develop a project management system that would ensure employees and contractors were able to manage capital projects of various scopes and sizes as efficiently as possible. All major engineering projects are now delivered using Project and Portfolio Management tools and practices which give BC Hydro a greater ability to manage schedules, costs and the quality of construction projects.

More than a year after commencement of the project, BCTC was integrated into BC Hydro. The addition of many transmission capital projects to BC Hydro's portfolio meant that the project had to incorporate additional requirements to support users working on these large transmission projects. BCTC had planned to implement its own Project Portfolio Management tool prior to integration. This project did not proceed. As a result of these factors, the project was completed at an increased cost of \$21 million in Fiscal 2012 from the previous cost estimate in Fiscal 2009 of \$15 million.

### **EMPower HR Project**

This project involved building a new self-service Human Resources system for employees and managers to support human resource and payroll functions. This single system replaces more than a dozen disparate backend systems that were aging and increasingly difficult to update.

The first phase of the EMPower project was started in Fiscal 2009 with an initial cost estimate of \$10.2 million. Once the project's business case was completed and a new second phase of the project was introduced, the cost was estimated at \$14.7 million. This second phase included recruiting tools and the automation of additional backend processes. It was completed in Fiscal 2012 at a final cost of \$15.5 million, reflecting the expanded scope.

### **Customer Portal Project**

The goal of this project was to make it easier for customers to do business with BC Hydro. New functions were added to the web site including online self-service functions so that customers could manage their account online, reducing demands on BC Hydro's call centre, reducing paper bills and significantly enhancing a range of customer services.

The project was originally listed as a \$2 million web redevelopment project but this project completely changed when BC Hydro decided to address customer demand for access to services online. Following project definition, it was determined that off-the-shelf software would not meet BC Hydro's requirements for performance and security and custom development of the web self-service function would be required. Challenges were subsequently encountered with server/hardware infrastructure and migrating data from the old online platform to the new self-service platform. The project, originally estimated at \$6.2 million, was completed in Fiscal 2014 for \$17.5 million.

BC Hydro's web site can now handle 8,000 customers per hour (was limited to 400 customers per hour previously). With these changes, BC Hydro has seen a substantial increase in the number of users managing their accounts online: total page views for bchydro.com have grown from 58 million in 2013 to 72 million in 2014. Today, 60 per cent of BC Hydro's customers use the company's online services.

BC Hydro's investments in Information Technology are critical to the company's operations and are ongoing. The company's investments have strengthened BC Hydro's ability to deliver customer services, utility operations and capital projects. BC Hydro will continue to make these investments based on its strategic priorities and the need to keep its system modern and efficient to deliver the best services to its customers.

Sincerely,

A handwritten signature in black ink, appearing to read 'Greg Reimer', written in a cursive style.

Greg Reimer  
Executive Vice President  
Transmission, Distribution & Customer Service

**Tab 8**

**BC Hydro F09/F10 Revenue Requirements Application - BC Hydro  
Undertaking No. 62 – BC Hydro Exhibit B -78**

BC Hydro F09/F10 Revenue Requirements Application

BC HYDRO UNDERTAKING No. 62

**HEARING DATE:**

October 15, 2008

**TRANSCRIPT REFERENCE:**

Volume 9, Page 1509, Lines 11 - 20

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**REQUESTOR:** Commission Counsel, Mr. Fulton

**QUESTION:**

Please provide the approved principles on which the 5 year Information Technology (IT) strategic plan will be based.

**RESPONSE:**

Please find attached the summary, as presented to BC Hydro's Executive Team, with the approved principles for the 5 year IT strategic plan.

## EXECUTIVE SUMMARY

### IT SUMMARY

#### PURPOSE

To provide the CEO a summary of the IT discussion with ET on October 31, 2007.

#### Background

At a previous ET meeting attended by the CIO, the issue of Information Technology ("IT"), governance and principles was raised but required further discussion to resolve. At the October 31, 2007 session, this and other issues, were further debated and good progress was made.

#### IT Basics

There was agreement that there are significant pressures on our IT spend as follows:

- IT security requirements, paralleling an increase in security requirements for all utility critical infrastructures.
- Financial compliance requirements, such as MI 51-209 compliance, sets higher baseline standards for internal controls, to which we will ultimately be required to adhere.
- Management and utilization of assets, as utilities add monitoring capabilities, already in use with generation and transmission assets, to distribution assets to create a more "intelligent" grid.
- Management and utilization of people in executing maintenance and capital work.
- Volatility in cost of energy that will make Energy Trading and Risk Management (ETRM) systems more important.
- Lack of appropriate reporting to manage business – need for enhancement, particularly around capital.

We also agreed that there were some key IT principles that would guide our IT strategy and execution:

- IT provides the means to deliver information to run our business and improve business decisions.
- Leverage existing enterprise-wide IT applications.
- Simplification by moving to a process centric vs. project centric organization.
- Streamline and integrate core business processes across BC Hydro.
- Utilize best practice processes in IT applications with minimum customization.
- Apply an 80% rule to automating business functions and customizing IT solutions.
- Need to focus on achieving a bigger fix vs. continuing with band-aid solutions.
- Use technology to enhance innovation, efficiency and productivity.
- The Accenture High Performance Utility Model would be used as a starting point for reviewing our processes.

## EXECUTIVE SUMMARY

### Future IT Strategy

We reviewed and agreed that the development and execution of an IT strategy would be driven by the following process:

1. The business strategy and objectives of BC Hydro.



2. Business owners define their requirements to deliver the business strategy by defining business processes which need to be end to end processes.



3. The business processes would define the technology requirements (applications, databases, infrastructure and telecoms).

It was recognized that there may be some reiteration between (2) and (3) in finalizing final detailed business process design.

As the IT strategy is developed by Business Groups and the CIO over the next few months, it was agreed that some common principles will apply (see Appendix 1 for more detail):

1. Business strategy drives business process design.
2. Business process is defined both in terms of Enterprise and Business Group.
3. End to end business process design will be implemented (Appendix 2 for draft of cross functional process chart).
4. Business process design drives the IT strategy.
5. We will apply the 80/20 rule.
6. Design for "Tool Time" i.e. perform transactional processing by technology.
7. There will be a single source of information.
8. Test and validate current IT investments first to solve business needs.
9. There will be short and long term strategic IT investments.
10. There will be consistent and effective IT governance with an enterprise management view of our IT architecture and asset development.

We also agreed that Business Groups own projects and solution delivery particularly around business process. The CIO enables and supports this by working together as a team and utilizing resources effectively across the company. To be clear, there will be no centralization of IT resources; rather, they will remain where they are today, but deployed to the priority projects across the company as agreed to by the governance team.

## EXECUTIVE SUMMARY

### IT Governance

We agreed that IT needed to be better governed across the company if we are to be successful in achieving our objectives.

We agreed that ET, with the CIO, is the appropriate governance group to make recommendations and provide:

- Oversight for business process design and architecture.
- Oversight for information technology architecture.
- Oversight for IT investment and priorities.
- Oversight for enterprise projects.
- Oversight for service delivery, including ABSU.

It was suggested that this would be achieved in two ways:

1. Part of the monthly ET meeting with a scorecard on projects, operations, issues and risks.
2. More detailed discussions and decisions as part of monthly Operating and Financial Review meeting.

A key role in governance is for the CIO to ensure inter-dependencies are identified and addressed and issues raised to ET if required.

### IT Investment Allocation

As we have seen before, our capital investment is in supporting the operations (run – 50%) more significantly than grow (30%) and transform (20%).

We agreed that this needed to change as we needed to invest in assets and infrastructure for future environments. The investment priorities should be focussed on transform (50%), grow (20%) and run (30%).

This means that when allocating resources, transform, not run, will be the first priority. This may mean that some incremental changes to existing systems may not be made.

### Resources

We discussed that currently we do not have business process owners or architects for either process design or technology. This is a key missing element and needs to be addressed.

## EXECUTIVE SUMMARY

Going forward it was agreed that each key business area should have a process owner and architect. For example, the customer process owner would sign off on all customer processes for the benefit of the company as a whole and the business process architect would ensure the process design works for the Enterprise and Business Groups. There would be a lead business process architect which would reside in the CIO's office to ensure consistency across the company and integration where possible between processes. Individual process architects would be from the business and would be rotational, matrixed positions. Business process analyst roles would remain with the business groups.

It was also agreed that business groups need to provide "super user" services to ensure the sustainability of new system. ABSU would provide the front end help.

We agreed there was a need for an overall technology architect to ensure our IT architecture meets corporate goals and objectives. We discussed the requirements of this position and agreed that it was a P5 technical specialist with cross company responsibilities as it was similar to a chief engineer role (subject to HR and CEO confirmation).

To support the Chief Architect, there would be a need for area specific architects, i.e. Telecom, data, security, etc. Many individuals currently at BCH would perform these roles along with their current functions.

### Project Delivery

We agreed that the coordination and execution of the IT projects could be better managed, particularly to ensure that we were addressing the company priorities, interdependencies, utilizing resources (internal and ABSU) appropriately, and ensuring consistent and effective delivery.

We agreed that the CIO's office should establish a Project Management Office (PMO) to provide the oversight (not be responsible for delivery, Business Groups retain this responsibility) to oversee and report on the major IT projects.

### Next Steps

No.	ITEM	RESPONSIBILITY
1	Summarize and confirm understanding of discussion and agreements	AC / All
2.	Review with CEO	AC
3.	Develop monthly reporting scorecard	CIO
4.	Finalize draft IT investment plan for presentation to ET	CIO / All
5.	Reorganize CIO's office and appoint architects, establish PMO	CIO
6.	Draft Communication Plan	AC/CIO



<b>British Columbia Utilities Commission</b> Information Request No. 1.71.2.2 Dated: <b>March 12, 2008</b> British Columbia Hydro & Power Authority Response issued <b>April 23, 2008</b>	Page 1 of 2
British Columbia Hydro & Power Authority <b>BC Hydro F2009 and F2010 Revenue Requirements</b> <b>Application</b>	<b>Exhibit:</b> <b>B-5-1</b>

71.0 TOPIC: **38. Capital – Information Technology**  
 Reference: **Exhibit B-1, Chapter 5, Capital Expenditures & Additions, Section 5.5.6, Information Technology, pp. 5-18 and 5-19; Appendix A, Revenue Requirements Schedules, Schedule 13, p. 38 of 41**

1.71.2 Section 5.5.6, pp. 5-18 and 5-19 states:

“Forecast IT capital expenditures for enhancements to BC Hydro’s various software systems including the following:

required upgrades to software systems such as PeopleSoft to align the applications with the vendor-supported versions;

implementation of emergency response planning software;

enhancements to the external website to improve customer service;

increased security for websites and external communications;

improvements to the safety, health and environment management systems;

improvements to outage communication systems; and

replacement of the fleet management system.”

1.71.2.2 Please provide copy of BC Hydro’s five-year Information Technology (“IT”) Strategic Plan.

**RESPONSE:**

<b>British Columbia Utilities Commission</b> Information Request No. <b>1.71.2.2</b> Dated: <b>March 12, 2008</b> British Columbia Hydro & Power Authority Response issued <b>April 23, 2008</b>	Page 2 of 2
British Columbia Hydro & Power Authority <b>BC Hydro F2009 and F2010 Revenue Requirements Application</b>	<b>Exhibit: B-5-1</b>

BC Hydro's five-year IT Strategic plan was submitted in the F07/F08 RRA in response to BCUC IR 1.230.3. A copy is attached.

BC Hydro is currently updating its five-year IT Strategic plan to support the forthcoming major IT initiatives. The plan is scheduled to be presented to the Board in May 2008, and BC Hydro will file it as part of the Evidentiary Update.

British Columbia Utilities Commission Information Request No. 1.230.3 Dated: June 22, 2006 British Columbia Hydro & Power Authority Response issued July 26, 2006	Page 1
British Columbia Hydro & Power Authority BC Hydro F07/F08 Revenue Requirements Application	Exhibit: B-11

**230.0 Reference: Exhibit B-5-1, Chapter 5, Section 5.8 Information Technology (IT), p. 5-33**

1.230.3 Please provide a copy of the latest 5-year IT strategic plan.

**RESPONSE:**

**The current IT Strategic Plan dated May 2006 is attached.**

**INFORMATION TECHNOLOGIES STRATEGIES REVIEW****PURPOSE**

To update the Audit and Risk Management Committee (ARMC) on the overall IT strategy over the next three years.

**Background**

Since 2000 a significant investment has been made in Information Technology that saw off-the-shelf packaged software replacing legacy custom solutions. This included PeopleSoft Financials, PeopleSoft Human Resources, Passport Work Management, and SAP Customer Care. A report on the implementation of PeopleSoft Financials was presented to the ARMC in May 2005. In summary, this concluded that PeopleSoft as a financial system was implemented and is working but the objective of improved financial processes has not yet been achieved.

The significant amount of IT systems implementation and organizational change at BC Hydro since 2000 has impacted the efficiencies of the IT processes and their inherent controls. The current IT infrastructure is also fragmented and therefore, more costly and less reliable than necessary.

The end-users have a lack of confidence in some of the IT systems and in the IT systems ability to support work requirements. A major contributor has been a lack of alignment between the business practices and system functionality as discussed in the May 2005 presentation to ARMC. Internal audits have also identified business processes and controls as an area for improvement. Not updating our business processes as we implemented new IT systems has prevented the company from benefiting fully from the major IT investments of the recent past.

**Other Issues**

With an increasing retirement risk, the aging workforce brings with it specific challenges around communication, and information organization and retrieval. Appropriate IT solutions can help address these challenges.

The privacy and security of customer and employee information has seen increased public policy, legal liability and public awareness. These have led to increased expectations and standards in respect to access, storage and use of this type of data which need to be addressed. There are also utility industry requirements mandated by NERC (IT security standards) and FERC (Standards of Conduct) that must be adhered to. The creation of BCTC also created specific security requirements across a shared infrastructure.

With an increased focus on accountability for costs and delivery of results, there is a need to enhance, integrate and simplify cost and performance reporting to provide the appropriate tools to deliver on our objectives.

**INFORMATION TECHNOLOGIES STRATEGIES REVIEW****IT Strategy**

The IT strategy is driven by the corporate priorities of safety, reliability, customer satisfaction, financial performance, and people. The strategy is based on the following three objectives:

1. Increase the reliability and cost-effectiveness of the IT and telecommunications infrastructure.
  - ◆ Standardization, limited customization and optimizing the existing IT footprint will define initiatives in this area.
2. Drive additional benefits out of past IT investments to improve employee productivity.
  - ◆ The continued adoption of best-practice processes, IT standards, education of the workforce on existing software capabilities and improved communication capabilities support the evolution towards a more productive workplace environment.
  - ◆ Simplify and standardize performance reporting.
3. Increase safeguards regarding privacy and security through controlled information access and use.
  - ◆ Initiatives will be focused on providing a safe, secure and reliable computing platform, education of users about security issues, and rapid adoption of security technologies.

**Progress to Date**

The last two years has seen a significant consolidation and standardization of the infrastructure. The number of servers managed was reduced by 25% driving average utilization up. There was also progress in reducing the number of managed applications. Plans are in place to increase our capacity to manage the infrastructure efficiently and identify further under-performing assets for rationalization.

Last year saw the introduction of revamped, streamlined Information Management policies. Industry standard processes were introduced and used to measure BC Hydro process maturity and identify areas for improvement. An example was improvement in the IT capital budgeting process with the introduction of an enterprise-wide standardized prioritization process.

IT security processes have been updated and a specific IT security position recently created within the OCIO to provide additional focus on this area.

## Challenges

With the significant IT implementations at BC Hydro over the past few years, the capacity for change within BC Hydro is a challenge. There is hesitation in the company to accept more significant changes to the IT systems and infrastructure, with a general belief that the existing systems are sound but are not fully utilized. This is compounded by high turnover of staff when training is based on informal mentorship – not a standardized training program. These characteristics support incremental change within the IT environment and driving out benefits from the existing assets in the short term.

However, there will need to be a major expenditure between 2009 and 2012 as the PeopleSoft system becomes no longer supported following Oracle's acquisition of PeopleSoft. An emphasis in the next few years on standard financial processes, enterprise-wide controls and the quality of financial data will help limit migration costs to whatever successor system is chosen.

Historically there has not been a significant focus on accountability for delivering on the financial and other benefits of IT expenditures and execution of projects. An increased emphasis on realizing financial and other benefits is a behavioural change that would improve the focus of IT expenditures.

The risk of security and privacy events occurring will increase with increased turnover of staff. Improved emphasis during employee orientation, and improved policies and controls around records management will mitigate most of these risks.

## Role and Impact of Outsourcing

Outsourcing of portions IT has become a standard practice within North America with many of these agreements going through the third contracting cycle. The evolution of outsourcing has seen a movement towards multiple suppliers focused on specific functions to which the vendor brings process efficiency and scalability. Two recent examples are the B.C. Provincial government agreements to outsource desktop support to one vendor and payroll to another.

The BC Hydro outsourcing agreement is an agreement with one supplier and therefore includes a single supplier dependency risk not generally seen in new outsourcing contracts. The agreement has delivered significant cost savings in the IT area but has been challenging to manage. The Amended Master Services Agreement includes improvements which will address this challenge by providing clarity on deliverables and defined operating procedures. The new agreement also supports cost efficiency regarding transformational initiatives and infrastructure operations.

While diligence is required to continue to drive the benefits out of the agreement, overall outsourcing remains appropriate for IT. Additional outsourcing will be considered where appropriate.

**INFORMATION TECHNOLOGIES STRATEGIES REVIEW****Financial Objective**

The overall IT spend is within benchmarked amounts. These amounts will be refocused in achieving the strategic objectives above without an increase in overall spend.

**Next Steps**

Over the coming months the OCIO will continue to work across the company with the LOBs to establish clear system requirements for each of the major processes. Once completed, decisions will be made as to the appropriate IT systems to retain as our core BC Hydro wide foundations. Processes will then be aligned around these and surplus IT systems retired.

## Detailed Analysis of the Supporting Evidence

### Supporting Documentation Public Accessibility

Copies of all supporting documentation are attached to this detailed analysis of the supporting evidence. The supporting documentation can be grouped into two areas:

1. Documents publically available on the BCUC website under the BC Hydro 2009/2010 RRA and 2011 RRA submissions; and
2. Internal BC Hydro IT&T Strategy Documents and IT Project Business Cases available to a wide audience within BC Hydro, and most likely subject to BCUC Information Requests (IRs), and even potentially general public FOI requests.

### Detailed Analysis and Referencing of Supporting Documentation

#### ***Fiscal 2009/2010 Revenue Requirement Application – BC Hydro Exhibit B-1 (available on the BCUC website)***

The 2009/2010 RRA submission includes a summary of the planned IT Capital Spend in F2009 and F2010 in a table breaking the IT Capital Spend down into projects greater than \$2M (***Appendix I***) and a one page summaries of projects greater than \$5M (***Appendix J***).

The planned IT Capital Spend was \$46.8M in F2009 and \$40.5M in F2010. Eight projects, including the Enterprise Financials Upgrade project, had one page summaries in Appendix J (projects greater than \$5M).

#### ***B.C. Hydro Revenue Requirement F2009, F2010 – Volume 9 Proceedings – October 15, 2008. (available on the BCUC website)***

During the October 2008 BCUC RRA Hearings, Mr. Stuckert was asked about the state of the current IT Strategic Plan (***page 1508 starting at line 4 of October 15, 2008 Proceedings***). In response to BCUC Information Request (IR) 1.71.2.2, BC Hydro submitted an old IT Strategic Plan dated May 2006, and said that the updated plan was scheduled to be presented to the board on May 2008, and that BC Hydro would file the plan as part of evidentiary evidence.

Mr. Stuckert stated that the new plan was not filed (***page 1508 line 17***). He went on to state that (***page 1509 starting at line 3***), we did establish some principles and directions, with both the BC Hydro Executive Team and the Board though the Audit and Risk Committee, on some principles and directions on which the strategy will be governed. That is completed and we are following those, but we have not finished the detailed plans and deliverables for all the strategies.

**Confidential**

When pressed if the document which established the principles of the IT Strategic Plan could be filed with the BCUC, Mr. Stuckert said that we could do that (*page 1509 line 19*). This was later delivered to the BCUC as *BC Hydro Undertaking No.62*.

In testimony later that day (*page 1535 starting at line 12 and then again on page 1537 starting at line 11*), Mr. Stuckert was question about the proposed F2009/2010 IT Capital Spend and IT Projects listed in *Witness Aid A2-21 (Appendix J summaries of projects greater than \$5M)* and if there were any cost/benefit analysis or feasibility studies done for those projects. He stated that projects listed as in the Definition phase or Identification phase did not have formal business cases done at this point (*page 1537 starting at line 16*).

He was later specifically asked questions about the PeopleSoft Financial System and the project justification for the Enterprise Financial Upgrade Project (*page 1548 starting at line 5*).

The BCUC commissioner read out the description of the Enterprise Financial Upgrade Project. "This project involves the upgrade of People Soft Financial Software from the version currently used, to PeopleSoft enterprise financial management, release 9.0." (*page 1548 starting at line 17*).

Mr. Stuckert was then asked to give the BCUC panel some sense of the enhancement in financial reporting by release 9.0 (*page 1548 starting at line 23*).

As part of his responses to the questioning, Mr. Stuckert stated that, "We are, in fact, looking at PeopleSoft as one of the solutions, but we are also looking at other options, just in case we want to fine a better solution." (*page 1549 starting at line 12*).

When asked if there may be a risk that BC Hydro would need to purchase a further release to accommodate the IFRS (International Financial Reporting Standards) changes, Mr. Stuckert replied, "... I think the capital forecast that was done in the initial budget was fairly pessimistic, in current terms of capability and what changes had to be made to the software. So within the scope of financial constraints, I think we're – I think the project is probably fine, but, yeah, yes, the answer is we have to review their proposal – or the processes to ensure that we can deliver in the future." (*page 1550 starting at line 17*).

The submitted one page summary for the \$7.2M Enterprise Financial Upgrade Project (*APPENDIX J - B.C. Hydro F09/F10 RRA Page 89 of 120*) clearly states in its section on the *Discussion of Alternatives* that to re-platform to SAP Software instead of just upgrading PeopleSoft would cost between \$30M to \$40M, would take away significant resources from other BC Hydro IT Projects, would take two to three years, and was not considered an appropriate option for BC Hydro.

At no time during his testimony did Mr. Stuckert state that there were any plans to spend more than amounts listed in the Appendix I table of the planned IT Capital Spend in the 2009/2010 RRA - \$46.8M in F2009 and \$40.5M in F2010 (*Appendix I - F2007 – F2010 Capital Expenditures, Information Technology Page 10 of 14*).

**Tab 9  
BC Hydro, Expenditure Authorization Request, Implementation of SAP  
Financials – Blueprint Phase, July 28, 2008**

# Expenditure Authorization Request (EAR)

*Meeting Thursday*



## Section 1 Summary of Expenditures and Approvals

### 1.1 Project Creation

Title: Implementation of SAP Financials - Blueprint Phase		Project ID: 74110		Rev. No.	
Project Initiator: David Wong, Chief Accounting Officer (Acting)		Local: 74110		Project Manager: Enn Kiudorf	
Local: 74110		Local: 73729		Date: 28-Jul-08	
Business Group: Corporate					
<b>Expenditure Type</b> <input type="radio"/> Specific Capital <input type="radio"/> Recurring Capital <input checked="" type="radio"/> Operating Cost Initiatives <input type="radio"/> Deferred DSM <input type="radio"/> Deferred Regulatory Other <input type="radio"/> Land Disposals <input type="radio"/> Capital Retirement			<b>For Capital Projects Only</b> Estimated Project Start Date: _____ Estimated In-Service Date: _____ High Level Business Driver: <input type="radio"/> Sustaining <input type="radio"/> Growth		
<b>Request Reason</b> <input checked="" type="radio"/> New <input type="radio"/> Revision:		<input type="radio"/> Scope Change <input type="radio"/> New Phase <input type="radio"/> Cost Change <input type="radio"/> Other please specify: _____		Originating Department (CC): _____ End Use Department (CC): _____	

**Project Description**  
 This project will provide an assessment and plan (collectively, the Blueprint) to support a decision to proceed to implement SAP Financials to replace BC Hydro's existing financial systems (Peoplesoft Financials v8.0).

### 1.2 Investment

Request Dollars ( 000's)	Prior Requests	Current Request	Total Expected Amount	Project Reserve Complete Section 1.5	Total Authorized Amount
Direct Costs				<i>If applicable</i>	
- Capital, (incl Recurring Cap.)			\$ -		\$ -
- Operating Costs		\$ 750,000	\$ 750,000		\$ 750,000
- Deferred DSM			\$ -		\$ -
- Deferred Regulatory Other			\$ -		\$ -
Overhead (COH)			\$ -		\$ -
IDC			\$ -		\$ -
<b>Total Investment Cost (A)</b>	\$ -	\$ 750,000	\$ 750,000	\$ -	\$ 750,000
<b>Retirement of Capital Assets (Complete Section 6)</b>					
Asset Value (Greater of NBV or Market)	\$ -	\$ -	\$ -		\$ -
Estimated Dismantling Cost	\$ -	\$ -	\$ -		\$ -
<b>Total Authorized Retirement Cost (B)</b>	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Cumulative EAR Total (A+B)</b>	\$ -	\$ 750,000	\$ 750,000	\$ -	\$ 750,000

### 1.3 Required Review & Approvals

Name	ODMS#	Signature	Date
Project Initiator: David Wong, CAO (Acting)	3628	<i>[Signature]</i>	Aug 22/08
Group Controller: Carol Richards	625	<i>[Signature]</i>	Aug 22, 2008
Senior Vice President or Vice President			
Jurisdictional Approval (CIO, Properties): Don Stuckert, VP & CIO	1260	<i>[Signature]</i>	Aug 22, 2008
Corporate Financial Evaluation Review: Simon Paisley	3497	<i>[Signature]</i>	Aug 21 '08
Financial Approval (CFO)			
Chair, CEO or President, or Board			

### 1.4 Delegation of Approval Authority for Contracts and Commitments

Contract / Commitment	Amount	Delegated to (Name)	Delegated by (Title)	Signature	Date

### 1.5 Delegation of Project Reserve

Delegated to	Delegated by	Signature	Date

# Expenditure Authorization Request (EAR)

## Section 2 Annualized Forecast

### 2.1 Project Expenditures by Fiscal Year (Up to date of project completion) ( \$ 000's)

	Prior Expenditures	Fiscal 2009	Fiscal 2010	Fiscal 2011	Fiscal 2012	Balance	Total
Capital (Incl. COH & IDC)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deferred DSM							\$ -
Deferred Reg - Other							\$ -
ARO							\$ -
Operating	\$ 750,000						\$ 750,000
<b>Total</b>	<b>\$ 750,000</b>	<b>\$ -</b>	<b>\$ 750,000</b>				

### 2.2 Forecast Annual Net Income Impact (For Years following In-service) (\$ 000's)

*(This table is only applicable for capital projects > \$100,000)*

	Fiscal 2009	Fiscal 20	Fiscal 20	Fiscal 20	Fiscal 20 to 20
Revenue increase					
Cost of Energy					
Operating Costs (increase) decrease	\$ 750,000				
Depreciation & Amortization	\$ -	\$ -	\$ -	\$ -	
Grants and Taxes					
Finance Charges					
Other Expenses (Revenues) - Specify:					
Income Before Regulatory Accounts	\$ (750,000)	\$ -	\$ -	\$ -	\$ -
Regulatory Transfers					
Net Income Impact	\$ (750,000)	\$ -	\$ -	\$ -	\$ -

### 2.3 DSM Program

*(This table is applicable for DSM Projects only)*

	Fiscal 20	Fiscal 20	Fiscal 20	Balance	Total for this request	Full Program
Annual Energy Savings (GWh/Yr)					-	
Cumulative Energy Savings (GWh/Yr)					-	
Demand Savings (MW)					-	
Unit Hydro Costs (¢/kWh)					-	
Unit Total Resource Costs (¢/kWh)					-	
		Full Program Year	Final Year			
Market penetration of technology (%)						
Status quo estimate (%)						
Tag on estimate (%)						

This document describes the overall BC Hydro Financial Systems Replacement Project (Project), defining its scope, objectives and approach. It is anticipated that the Financial Systems Replacement Project will result in the replacement of the current Peoplesoft Financials (version 8) systems with SAP Financials. The implementation of SAP Financials represents the second significant installation of the SAP ERP systems following completion of the Northstar Project that implemented the SAP Customer Care systems in 2004. Under Hydro's IT strategy, approved by Hydro's Audit & Risk Management Committee earlier this year, the SAP systems were identified as a "default solution" and supported by validation criteria to establish when the SAP systems should be a preferred solution.

The Project is expected to involve two phases:

**Phase 1: SAP Financials Blueprint.** During this phase, BC Hydro will perform an assessment of SAP Financials to validate the initial decision that it will meet BC Hydro's requirements and provide estimates that support completion of a business cases. This phase will also ensure a reasonable understanding of the business process and change management implications and commitments, and how these new financial systems will be integrated with existing business systems. This work is expected to occur during F09, Q2 and Q3. This work will result in a "go or no-go" recommendation related to finalization of design, and implementation of SAP Financials.

**Phase 2: SAP Financials Implementation.** Assuming that the work in Phase 1 result in a decision to proceed with an SAP Financials Implementation Phase, BC Hydro will finalize the design and commence implementation in Q4 of F09 with a target "go-live" date on or before April 1, 2009. The new systems will enable various objectives, and critical financial and reporting requirements as noted below:

- **Simplify & Standardize.** The new systems should enable simplification and standardization of BC Hydro's financial processes, and reduce the complexity of the financial system environment. **Automation & Efficiency.** There is a need to enable workflow and automate transactional steps, where practicable, to reduce user-burden, reduce manual intervention, and create financial benefit through a reduction of the total cost of finance functions.
- **Internal Control.** The new financial systems should, where possible, enable and improve BC Hydro's internal controls.
- **Financial Information.** The new financials systems will enable all entity-wide financial accounting and reporting. This includes external reporting that complies with International Financial Reporting Standards (IFRS), and regulatory reporting including the BCUC Annual Report. It also includes management reporting that supports the current organization structure but is adaptable to future change. The revised management reporting will support cost and budget accountability, as well as other financial performance metrics. This will be supportive of a "one truth" approach to financial information that is understood and used across the company.
- **Support the IT Strategy.** Consistent with the IT strategy, SAP Financials will replace the current PeopleSoft Financial systems which have not been substantially modified or upgraded since 2003 and are no longer supported by the vendor. They will also simplify the technical IT environment and sustainment processes and lower the total cost of ownership.

The current funding request of \$750,000 is intended to complete an initial high-level Blueprint document that will enable a "go / no-go" decision. If Hydro decides to proceed, a further EAR would be required with estimated value of approximately \$30 million.

Business Rationale:

1. **Related Projects:** The Project will ultimately be required to enable BC Hydro's financial information requirements

**Financial Simplification.** Prior to the current IT Strategy, BC Hydro Finance initiated and completed financial simplification initiatives (Financial Accountability Infrastructure Project, and Financial Simplification Phases 1 and 2) to eliminate certain business practices and to enhance BC Hydro's accounting model and code of accounts. The eliminated practices, generally requiring a complex system of internal cost transfers, were administratively burdensome and required significant customization of the Peoplesoft Financial systems. Financial information did not support strong cost accountability, and resulted in management reporting that lacked transparency and credibility. During Q4 of F08, BC Hydro commenced a final phase of Financial Simplification (Phase 3). Under the direction of the CIO, the requirements for this final phase of Financial Simplification will be enabled through the SAP Financial Systems.

**International Financial Reporting Standards (IFRS) Implementation.** As a publicly accountable enterprise, BC Hydro's external reporting is required to comply with International Accounting Standards effective for F12, including data that will support reporting of F11 comparative information. The initial assessment work on this Project commenced during Q4 of F08 and will be completed during Q3 of F09. It is anticipated that the IFRS Assessment Phase will provide external reporting requirements and regulatory reporting requirements that will be enabled through the SAP Financial Systems. The SAP Financial Systems will support data capture that will comply with IFRS effective for F11 (April 1, 2010 "go-live" date)

Interdependencies between these projects and the implementation of SAP Financials will be controlled through a high level of overlap in Steering Committee composition, and in the Project Team. The business requirements established under the Financial Simplification Phase 3 and IFRS Implementation projects will be enabled through the implementation of SAP Financials.

2. **Technical Objectives.** The key technical objective of this project is to take advantage of the integrated design of SAP configuration, and to migrate the processes currently hosted within the following PeopleSoft modules, or non-integrated systems:

- General Ledger
- Project Costing
- Accounts Payable
- Accounts Receivable
- Billing (sundry billing)
- Contracts (for sundry billing)
- Expenses (travel & expenses)
- Asset Management
- Time & Labour (part of PeopleSoft HR)
- EPM (reporting and budgeting)
- Treasury (currently, a stand-alone system)

The objective of Phase 1 (Blueprint phase) is to perform a rapid assessment that will provide BC Hydro with detailed analysis and insight into the overall design, configuration, process changes, necessary customizations (if any), integration strategy, level of effort, and timeframe required to implement the SAP Financials option. While it is not intended that a detailed design will be completed in the Blueprint phase, the Project Manager may advise, and the Steering Committee may consider, that the scope of the Blueprint phase should be expanded to include certain work that would otherwise be completed as part of detailed design in the Implementation Phase. This additional work scope would facilitate a better informed decision on the financial and business implications of a decision to proceed.

This first phase will be considered complete when the Project Manager provides, and the Steering Committee approves, specific recommendations regarding the path to the SAP Financials Implementation Phase or, otherwise, an alternative solution is established.

The total cost of the Phase 1 Blueprint is \$750,000 representing the proposed cost of service of \$375,000, travel costs estimated at \$75,000 and a contingency for change orders of \$300,000 based on the ABSU variable rate. The cost of this work will be accounted for as an operating cost within the existing budget of the OCIO. The change order contingency is intended to allow the BC Hydro project team (working with the related project governance committees) to expand work as required to ensure a full understanding of the business implications of proceeding to implement SAP Financials. The initial scope identified under the RFP omitted certain items that should be considered part of this work. The contingency request is intended to be used to ensure coverage of those areas of assessment.

Meeting w/ George  
Aug 13, 2008  
AK

**Richards, Carol**

**From:** Koyanagi, George  
**Sent:** 2008, August 11 4:44 PM  
**To:** Wong, David (BC Hydro)  
**Cc:** Richards, Carol; Paisley, Simon  
**Subject:** SAP Financials - EAR documentation still to be resolved

David, we need to resolve how this will be dealt with. In particular, the issue Simon identifies below is that I have left a large contingency for Change Orders based on the scoping problem in the original RFP document. There is work outside the scope of the Accenture proposal that we will need to do as part of the initial assessment work in order to clarify certain areas, in particular:

- how we will clarify whether SAP treasury modules (one or both of Treasury and Corporate Finance Management) should be included in scope, or whether we allow Treasury to proceed with their RFP for a non-SAP replacement system for Treasury
- how to think about Position Management as the enabling mechanism for the financial approval authorities. This is being enabled for the P2P project. The Statement of Work is approved, and is currently in the design/build phase.

These items should have been included in scope, and we need to now correct for the omission. We are also assuming that Change Orders may be required if we do not consider BC Hydro's version of the Blueprint (just a conceptual design) to be sufficient to answer concerns of the Steering Committee and user groups. Based on this, I have nearly doubled the funding request to \$750K from the Accenture proposal which is a fixed fee of \$375,000 plus travel of \$75,000). The \$300K addition reflects a "guess" of what we might incur in terms of change orders. I believe that virtually the full amount of this initial work should be accounted for as an operating cost as Accenture has confirmed that we are doing no detailed design work – rather, we are simply informing the business case of whether to proceed.

We can meet with Carol if you have time, or otherwise wait until next week when Simon is back. As I assume you will not have much time, the alternative is that you can resolve post-NSP while I'm on AV. We shouldn't be signing off on the commitment document with Accenture until the EAR is reviewed by Simon, and then approved by you and Carol. I think the issues to be resolved are:

- whether you, Carol, and Simon and live with the \$300K contingency, given that it is likely that Change Orders will be required
- whether the budget implications are satisfactory ie where is the operating cost budget? If not, who is taking accountability?

Thanks.

**George Koyanagi**  
Financial Policy & Control  
Phone: (604) 623-4593  
Fax: (604)623-3855  
Email: [george.koyanagi@bchydro.com](mailto:george.koyanagi@bchydro.com)

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**From:** Paisley, Simon  
**Sent:** 2008, August 08 7:23 PM  
**To:** Koyanagi, George  
**Subject:** Your message

Hi George,

I'm sorry for not getting back to you earlier, but I'm off next week and today was crazy busy.

Regards the business case, I reviewed it and the only comment is that the contingency is a little unusual, but I understand where you are coming from on it further to our discussion. I just wonder if this will raise questions at a later stage, or further up the review process.

Anyway, on another tack, Carol and I spoke with Don and we are assured that the licence with SAP will be on a "pay as you go" parameter and therefore individual business cases can be raised as we progress. I also mentioned the wider implications and whether we should consider raising an umbrella business case, and I guess this will need further push if we think this is the right thing to do. I still believe it would be useful to have a conversation with David on this.

We only had a ½ hour meeting with Don, so limited in terms of discussion.

I sent you the update on the FSI3 User IT, and OCIO are now lined up.

I'm back Monday 18<sup>th</sup>.

Rgds  
Simon.

## **Tab 10**

- 1. Appendix I – Amended RRA 2012-2014 – Nov 2011**
- 2. PSW Project Summary – Appendix J of Amended RRA 2012-2014 – Nov 2011**
- 3. BC Hydro Business Case – March 2011**
- 4. BC Hydro Response (RRA 2012-2014) to IR 1.277.1 + 1.227.2**



<b>Project Name: Plan and Schedule Work</b>	
<b>Forecast Capital Cost:</b> TBD	<b>In-Service Date:</b> TBD
<b>Development Phase:</b> Design and Planning	<b>Filing Reference:</b> F2011 RRA: <ul style="list-style-type: none"> <li>• Appendix J, page 82</li> <li>• BCUC IRs 1.135.1, 1.135.2, 1.257.1, 3.637.1, 2.418.4, 2.421.1, 2.421.1.1, 2.421.2 – 2.421.4;</li> <li>• JIESC IR 2.28.1</li> </ul>
<b>Description:</b> BC Hydro has multiple approaches to managing work across the organization, resulting in highly complex and manual work processes for field staff and limited “time on tools”. The purpose of this project is to develop and implement an enterprise wide business process and the necessary supporting technology for initiating, planning, scheduling, dispatching, and closing work.	
<b>Key Drivers:</b> <ul style="list-style-type: none"> <li>• Improve “time on tools;” and</li> <li>• Simplify work processes and reduce the costs associated with the planning and scheduling of work processes.</li> </ul>	
<b>Issues Being Addressed:</b> There are a variety of issues being addressed by this project: <ul style="list-style-type: none"> <li>• Field staff and management spend a large portion of their time completing manual work processes, specifically planning, scheduling and dispatching work. This time should be reallocated to “time on tools” or “time managing staff and safety;” and</li> <li>• Currently there are multiple non-integrated technologies involved in the work planning process, making it complex and costly. Implementing an integrated solution will allow for the reduction of the work complexity, the reduction of the number of applications, and the potential reduction of costs.</li> </ul>	
<b>Discussion of Alternatives:</b> Status Quo alternative – current processes and systems are resulting in managers and field staff spending too much time on paper and not enough time focusing on “work”. The processes and systems are costly and complex to manage and to change.	
<b>Additional Information:</b> A business case is not yet completed for this project. The initial phase business case will likely be completed late in F2011.	
<b>Amended F12-F14 RRA:</b> <b>Forecast Capital Cost is now \$33.6 million with the project going into service in multiple stages across F2012-F2014. The business case will likely be completed in Q3 of F2012.</b>	

## Plan Schedule Work – Preliminary Business Case

### 1. Classification

Plan, Schedule Work (PSW) is an initiative to improve planning, scheduling and management of work across the enterprise. This initiative is classified as Sustainment Capital, funded under the 5-year IT&T Plan. Implementation of PSW will span multiple years and involve several releases across different areas of the business to achieve the anticipated business value.

### 2. Executive Summary

#### Overview

BC Hydro undertakes in upwards of 150,000 pieces of work per year across its various lines of business and this is only expected to grow in the years to come. Modern technologies can facilitate better long-term planning and real-time flexible scheduling, but BC Hydro's current systems don't allow for this. Currently if a power line technician is finished one job early, they remain idle until the next scheduled job. If that technician could indicate on a mobile device that they had completed their work and be dispatched to the next job with detailed driving directions over the same mobile device, with needed parts dispatched to the location that would be there on arrival, more work could be done in less time.

PSW is about transforming the way BC Hydro's people are assigned to work. It involves establishing new work processes and procedures, implementing a new software application (and integrating that with other critical systems) to replace the multiple applications in use today and purchasing the computer hardware to make this work (such as new servers to run the software). This will support BC Hydro's efforts to safely keep the lights on while maintaining competitive rates and engaging a safe and empowered team.

#### Addressing Business Challenges

PSW addresses BC Hydro's business challenges in managing the increasingly large volumes of work initiated, planned, scheduled and executed in the Transmission, Distribution and Generation lines of business. The work varies by size, duration, location and complexity, and includes all major types of work: customer driven, maintenance, capital improvements and trouble.

PSW will transform the way BC Hydro plans, schedules and manages its work by re-engineering associated business processes; this will involve organizational change including enhanced accountability, re-defined roles and responsibilities, and new and updated supporting technology to significantly increase operational and organizational effectiveness. The ultimate goal of PSW is to lower operating costs across its various work streams and enable increased work throughput while maintaining employee safety and system reliability. PSW will support outputs from the Project and Portfolio Management (PPM) and Empower projects by enabling work visibility and work scheduling at the crew level and integrating time reporting.

#### Benefits and Costs

PSW will produce business value that includes tangible financial benefits through increased productivity in the volumes of work completed and reduced cost per unit of work. This will be achieved through improved work planning & scheduling to maximize time on tools, minimize travel and improved contractor utilization through work bundling and smoothing which is expected to generate significant cost savings. Other expected benefits include reduced administrative and project management time and reductions in IT maintenance costs by retiring and consolidating functionality contained in separate disparate systems.

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One-time costs include hardware (such as additional servers and storage), software support and maintenance costs, and implementation costs (such as process redesign, system configuration, data migration, systems integration, training and change management). Some incremental recurring costs related to new planning/forecasting and scheduling roles and ongoing system sustainment requirements are expected but will be fully offset by the aforementioned benefits.

**The Plan**

PSW is an enterprise level initiative that will span multiple years. Implementation of PSW will follow the Design Phase and will involve several releases across different areas of the business to achieve the anticipated business value.

The Design Phase will develop the detailed future state end-to-end business process designs and business requirements for implementation. This phase will answer key scope and supporting tool questions, as well as develop a change management strategy and plans required to support the new processes. An implementation roadmap will be developed, detailing the various releases across the business. In conjunction with the PSW Design Phase, the first implementation release is the Meter Exchange Quick Win. The Meter Exchange Quick Win's primary objectives are to increase visibility of Measurement Canada-based meter exchange work and use technology to better plan, schedule and report on the work. Following the PSW Design Phase, subsequent PSW releases are expected to include the following (recognizing that the configuration of these releases are subject to change based on PSW Design Phase results and consultations):

- **Generation, Transmission and Distribution Data Clean-up:** Prepare and convert work order, equipment and materials data from various separate systems (Passport, SAM, STARR) to SAP.
- **Generation & Transmission Stations Technology Improvements:** Replace work management systems used by Generation and Transmission stations with SAP.
- **Transmission & Distribution (T&D) Work Allocation, Scheduling and Dispatch Process Improvement:** Implement business rules, process improvements and organizational changes to more effectively bundle, schedule and dispatch work to internal and external resources.
- **T&D Design Process Improvement:** Implement business rules, process improvements and organizational changes to more effectively receive, manage and track work that requires a design.
- **Transmission Lines & Distribution Technology Improvements:** Implement SAP work management system that supports and enforces process improvements and organizational changes in Design, Scheduling and Dispatch.
- **T&D Design Tools and Advanced Work Scheduling Project:** Implement advanced tools that allow customer self serve options for Design work and dynamically optimizes work crews.

This preliminary short form Business Case is being completed to support the Design phase of PSW that started April 1, 2010, and which will begin in earnest October 25<sup>1</sup>. The scheduled completion is March 2011. The deliverables for this phase include:

- Business Process Documents (BPDs)
- Business Requirements Matrices
- Key Decision Documents (KDDs)
- Preliminary Business Case
- Implementation Plan
- Overall PSW Business Case (end of Phase) that will include updated costs and business value / benefit estimates
- Change Management Strategy
- Change Management and Communications Plans

<sup>1</sup> Initial schedule was delayed as a result of BCTC/BC Hydro reunification activities.

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- Meter Exchange Quick Win Implementation

### 3. Problem / Opportunity / Drivers

BC Hydro executes in upwards of 150,000 pieces of work annually, ranging vastly in terms of type and complexity. It has long been recognized by the company that there are significant challenges involved in managing such a large volume of work. How this work is managed is central to how BC Hydro delivers on many of its key priorities including its desire to safely keep the lights on, maintain competitive rates and engage a safe and empowered team.

BC Hydro is committed to managing work efficiently and cost effectively. However, the company faces challenges in that regard in the years ahead, including:

- BC Hydro's infrastructure is aging and will continue to drive significantly more maintenance and improvement work. Further, large scale projects included in the capital plan are applying further pressure on resources, equipment and materials.
- Increasing work demands requiring specialized knowledge and skills not readily available in the market require optimization of the existing resource base and work execution process to maximize current internal capacity while the company acquires and builds resource skills internally and within the market place.
- BC Hydro's workforce is aging, challenging the organization's ability to operate the existing system and undertake additional improvement work, particularly as resources with long-standing knowledge of the system depart.
- Changes to certain work procedures to enhance employee safety have resulted in longer cycle times for work completion.
- High workloads / staff overtime levels can impact response times and the ability to safely perform work.
- BC Clean Energy Act identifies a number of priorities in support of provincial goals of electricity self-sufficiency, job creation and reduced greenhouse gas emissions resulting in a substantial increase in BC Hydro's capital investment and ongoing sustainment requirements.

Current business processes and technologies make it difficult for the company to optimize the utilization of its resources. A number of issues exist:

- *Uncoordinated Work Streams:* Various work streams for the most part manage work in isolation from each other. Work is managed without a comprehensive and consolidated view of resources (between business units, contractors or geography). This disparate operating practice means that work is not consistently, optimally and logically bundled to best utilize internal resources, contractors, equipment, materials and fleet.
- *No Single Source of Truth or Common View of Work:* Supporting the isolated work streams are multiple heterogeneous systems for work initiation, planning, design, dispatch and execution. No single, integrated view into all work exists for metrics, resource or asset planning purposes.
- *Different Software Applications:* The business is challenged by multiple systems involved in managing work streams that are not fully integrated and do not provide data and information in consistent formats. These systems are aging, adding complexity and cost to their support and maintenance. For instance, a current core scheduling application is no longer being supported by the vendor.
- *Technology Does Not Align to Business Processes:* Business process design and systems design were not an integrated process in the past and as such some legacy systems do not align to the underlying business process they are designed to manage or support. For example, one current scheduling application does not have the required functionality to provide sufficient work visibility to effectively optimize crew and contractor deployment. Movement to SAP as an enterprise IT solution provides an opportunity to address these issues.

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**4. Objectives**

The objective of PSW is to transform the way BC Hydro plans, schedules and manages the maintenance, capital, trouble and customer driven work in the Transmission, Distribution and Generation areas.

Specifically, PSW's objectives are to:

- **Optimize Resources.** Raise labour resource efficiency, increase work throughput and achieve material cost savings by making all work visible and enabling better long term and short term planning and scheduling. This includes:
  - Increased work and resource visibility (work, resources, materials and equipment)
  - Increased time on tools through dispatching the right work, to the right resource, at the right time
  - Understanding and managing time on tools and overtime
  - Reduction in administrative activities to focus managers on core work such as safety oversight, managing and monitoring work throughput, and coaching and mentoring staff
  - Optimize work around planned outages
  - Improved equipment and material utilization. Long term planning enables bundling work and material needs and investigating strategic sourcing arrangements.
- **Create Consistency and Accountability.** Create a scalable, consistent approach to work where all work flows through an integrated planning, estimating, scheduling and dispatch function, using the same principles regardless of work type or location. Establish metrics and create the tracking of actual work performance against targets.
- **Leverage Technology.** Use technology to support business processes, including the following:
  - An integrated solution that is the single source of truth for all work management reporting
  - Use automation to reduce time spent on administrative activities, increasing time on tools and safety
  - Provide tools for complex tasks such as schedule optimization.

**5. Risk Assessment and Mitigation**

The following risks and mitigations have been identified:

1. **Risk:** The change management effort is significant for BC Hydro. Large numbers of employees will ultimately be impacted by process, technology and organizational changes that will occur as a result of PSW. There will likely be resistance from many employees, as a result of the changes.

**Mitigation:** Implementation plans will assume a high level of change management effort. A high level change management strategy has already been developed and detailed strategy will be developed during this phase. Change management will need to be driven and modelled starting with leadership. Change management resources are already on-board and dedicated to the initiative. There are dedicated resources from the business on the PSW team, as well as part time resources participating on the Business Advisory Team (BAT) and as Subject Matter Experts (SMEs). There is direct linkage between Steering Committee, BAT and SMEs.

Change management, human resources and employee relations teams will be engaged early in the process to discuss the changes to the existing organization (organizational alignment, roles, responsibilities, etc.) that will be the result of the design. A communications plan will be developed to ensure consistent messages are developed, and the appropriate medium and timing is used to communicate across the business.

2. **Risk:** The organization has limited ability to absorb the large amounts of change resulting from PSW and other large initiatives.

**Mitigation:** Change management activities will assess the organizational readiness for change, and provide input to the development of the implementation plan. The Change Lead will provide input to T&D change management

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leadership so they can assess the overall 'portfolio' of change within the business. In addition, the Steering Committee broadly represents areas of the company potentially affected by the change and will be responsible for identifying any areas of concern and ensuring that potential areas of change in their business groups are properly incorporated into the broader change management plans.

3. **Risk:** Lack of availability of BC Hydro resources due to other high priority initiatives.

**Mitigation:** PSW project management will monitor and actively work with senior management to manage the participation of resources in concert with other initiatives. The Design Phase will determine an Implementation strategy and scope based on various factors including requirements of other key initiatives. Project & sustainment resources will be assessed, aligned and managed accordingly.

4. **Risk:** Dependencies on and integration with other projects may impact PSW's scope, schedule and timeline of PSW implementation. For example, PPM design decisions and EMPOWER timesheet scope could impact PSW's overall design and implementation plan.

**Mitigation:** PSW has built in touchpoints with other projects, such as PPM, EMPOWER, Smart Metering and Infrastructure (SMI) and Distribution Management System (DMS) through various channels including the projects' Business Advisory Teams, overlapping Steering Committee members, the Process Council and project governance groups. Further, process and technical integration is being maintained through OCIO architects and design sessions with other projects. The dependencies will be one of many inputs in the development of the implementation plan including consideration of stabilization requirements for any process or system key dependencies driven by these projects.

5. **Risk:** The Quick Wins (QW) effort could be distracting and confusing by targeting the same users and/or functionality as the larger PSW releases, or compete for resources. Further, the Quick Wins may presuppose a process design that is not the same as the final design from the Design Phase.

**Mitigation:** Reduce the number of quick wins to only the implementation of the Meter Exchange quick win for the Design Phase and evaluate QW opportunities after design is substantially complete. This will allow for design creation first, after which analysis can be done to determine which ones would be feasible to implement as a Quick Win. Going forward, only implement a very small number of Quick Wins that yield measurable end-to-end benefits and that are consistent with the PSW Design.

6. **Risk:** The operational business groups may be hesitant to agree to substantive quantifiable business benefits, putting the PSW business case in jeopardy. The high-level benefits model shows eight areas of improvements, however, the ranges agreed to here by the business may underestimate the benefits that could potentially be achieved given industry best practise results for similar implementations.

**Mitigation:** It is recognized that a substantial effort is required to maximize the business benefits and strong leadership and business group participation is planned during the Design phase. PSW will seek data from similar utility initiatives that will provide an 'outside of Hydro' view of what can be achieved. Baselines will have to be established from which to measure benefits. A strong change management component exists and will focus on the areas where the most significant and achievable benefits are expected. In addition, efforts will be made to define and quantify the benefits to make them understandable, tangible and visible to organizational units at the operational level, building support for the initiative from key stakeholders.

7. **Risk:** The technical integration complexities to Passport and other systems are unknown and will increase the effort for Design and implementation.

**Mitigation:** PSW assumes there will be technical integration with Passport; however that integration will be driven by what's required to support the process design. To reduce technical risk, process integration will be considered in the design. PSW's Solution Delivery Lead understands Hydro's SAP integration architecture, and OCIO technical architects will be engaged throughout the design. Where needed, PSW will leverage knowledge from the other initiatives that have already integrated with Passport. During the design, the existing interfaces will be evaluated to see which ones can be re-used or modified slightly instead of creating from scratch. The Design Phase will also assess whether manual process integration or low connectivity solutions may be desirable as a way to eliminate or reduce system integration risks.

8. **Risk:** Costs and benefits for PSW will be validated and refined during the Design Phase. Should it be determined

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that a high cost, low benefit scenario is most likely, PSW will not be justifiable from a financial perspective.

**Mitigation:** A high and low estimate has been identified for each benefit and each cost area. While possible, it is unlikely that the Design phase analysis will determine that the PSW business case is unfavourable. If that does occur, the mitigation is to review the design for people, process and technology components that, taken together, can result in increases in efficiencies and positive business benefits for BC Hydro.

### 6. Value Realization

The cost-benefit analysis and NPV summarized below are based on the initial financial analysis. Based on discussions with the business groups, the following were identified benefits realization areas:

#### Areas Identified for Financial Benefit Realization

Benefit Area	Main Driver	Low	High
Designers	Reduced Labour costs on administrative work and project management	10.0%	15.0%
Inspector	Reduced Labour costs on administrative work and project management	5.0%	10.0%
Designer Support - DA/AA	Reduced Labour costs on administration	4.0%	6.0%
ESCC	Efficiency gain on work initiation	1.8%	4.5%
Distribution Line Crew	Reduced Travelling Time resulting from long range work planning, Improved on-tool time	2.1%	3.5%
Line Contractor	Improved connection between costs and resource allocation and better work bundling	3.8%	7.5%
Line Clerical/FSA	Reduced Labour Costs on Time Entry, Contract Admin, Job closing and scheduling	5.5%	8.3%
Management	Improved work planning and management.	1.4%	3.5%

PSW is projected to generate peak annual ongoing benefits (in \$000s) of \$10,453 ± 30%. It is projected to generate peak annual ongoing incremental costs of \$3,679 ± 30%.

These costs and benefits will be validated and refined during the Design Phase and included in the updated Business Case that will be delivered at the end of the phase.

One-time costs include hardware, software and implementation costs, covering both operating and capital. Assumptions were made on the timing of technology purchases as well as the timing of the implementation. High level technical design assumptions have been made regarding the system technical requirements and complexity of the integration points to other remaining systems. The estimated costs of PSW, for the expected releases outlined above, range as outlined below:

One-Time Hardware, Software & Implementation Costs (in 000s)		
Phase	Low Cost	High Cost
Design	(\$4,458)	(\$4,458)
Implementation	(\$17,584)	(\$36,257)
<b>Total</b>	<b>(\$22,042)</b>	<b>(\$40,715)</b>

Based on the estimated annual ongoing benefits and costs and on the one-time technology and implementation costs, a discounted cash flow analysis provides the following net present values for PSW under the different scenarios:

		Low Cost	High Cost
Net Present Value (10 years @ 7.5% discount Rate)	Low Benefits	\$11,128	(\$8,885)
	High Benefits	\$42,588	\$22,575

Further refinement of the above figures will be completed as the Design Phase concludes, at which time an overall business case will be completed. Thereafter, implementation plans for the various releases will be carried out.

Intangible benefits (in addition to the tangible benefits noted above) are also expected, and include in part:

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- Enhanced safety by leveraging technology to reduce administrative work, allowing more time spent in the field for oversight, coaching and mentoring crews;
- Documented and 'institutionalized' processes to aid in knowledge transfer for new hires;
- Standardized policies and processes;
- Single source of truth, enabling quicker and more 'trustworthy' reporting & metrics to reinforce accountability.

As three of the four scenarios generate substantial positive net present value, it is recommended to proceed with the Design Phase and assess and refine implementation costs, scope, timelines and deliverables to mitigate risk of a high cost/low benefit scenario.

### 7. Recommendation

- The Steering Committee has approved PSW to move to the Design Phase. Included in the Design Phase is the scoping and implementation of the Meter Exchange Quick Win.
- An Updated Business Case will be delivered at the end of the Design phase which refines the Scope / Budget / Timeline and outlines the implementation plan for the various planned releases.

An Expenditure Authorization Request has been submitted to authorize funding for the Design Phase in FY11.

Table 1 - High-level Financial Summary (\$000's)

	Prior Funding Request	Current Request	Total Request
Capital	-	2,461.4	2,461.4
Initiative OMA (IOMA)	-	2,040.0	2,040.0
Deferred	-	-	-
<b>Total Spend</b>	-	<b>4,501.4</b>	<b>4,501.4</b>

Table 2 - High-level Financial Summary by Fiscal Year

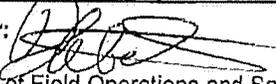
Fiscal Year	Capital	IOMA	Deferred	BOMA	BOMA (Savings)
Prior Years	-	413.5	-	-	-
Fiscal 2011	2,381.2	1,626.5	-	-	-
Fiscal 2012	80.2	-	-	-	-
Fiscal 2013	-	-	-	-	-
Fiscal 2014	-	-	-	-	-
Fiscal 2015+	-	-	-	-	-
<b>Total spend by year</b>	<b>2,461.4</b>	<b>2,040.0</b>	-	-	-

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**Table 3 - Summary of Capital, IOMA & Deferred by Category**

Category	Capital	IOMA	Deferred	Total
Labour (BCH Internal)	231.0	880.0	-	1,111.0
Materials	-	-	-	-
Services (i.e. Consultants/Contractors)	2,122.0	1,160.0	-	3,282.0
Communications	-	-	-	-
Computer Software	-	-	-	-
Computer Hardware	-	-	-	-
ABS (i.e. AM/AS/AD/ID)	-	-	-	-
Other	-	-	-	-
Interest During Construction (IDC)	108.4	n/a	n/a	108.4
<b>Total</b>	<b>2,461.4</b>	<b>2,040.0</b>	<b>-</b>	<b>4,501.4</b>

The recommendation of this business case is to proceed with the Design Phase and approve the associated EAR.

Approved by	Signature	Date
<b>PSW Sponsor:</b> David Lebeter Vice-President of Field Operations and Safety		03/07/11
<b>PSW Sponsor:</b> Don Stuckert Vice President & Chief Information Officer		MARCH 14, 2011

Author	Role	Contact
David Cantrel	PSW Project Manager	(778) 452-4708 (74708)

## FOR GENERATIONS

**CHANGE HISTORY**

Versions	Reason for Version	Date
Initial Draft	Initial Draft for review by Business Owner – to submit to OCIO for EAR approval	October 21, 2010
Version 3	Updates to Objectives, minor updates (formatting) to financial section	October 21, 2010
V4 and 5	Updates based on reviews with Don Stuckert and Leigh Ann Shoji-Lee	October 28, 2010
V5.1	Minor updates risks for grammar and to remove duplicate risk	November 1, 2010
V5.2	Update to remove 'best of breed' wording re: technology	November 1, 2010
V 5.3 – 5.5	Modified to add cost and description information for design and two implementation phases	November 4, 2010
V5.6	Updates based on review from Lori Finskars and Ryan Layton	November 8, 2010
V5.7	Alternative manner of displaying cost and benefit information using One Hydro approach based on comments from Ryan Layton	November 8, 2010
V 5.8	Update based on comments from Lori Finskars and Ryan Layton	November 10, 2010
V6	Minor changes to grammar and punctuation	November 11, 2010
V 6.1 – 6.2	Changes and revisions based on comments from David Lebetter and David Cantrel	November 15, 2010
V7 – 7.1	Minor wording changes to risk three; changes from Lori Finskars	November 16, 2010
V7.2	Insert changes to financial data in recommendation area to match EAR	November 22, 2010
V7.3	Minor changes based on comments from PSW Team	November 26, 2010
V7.4	Fixed one typo in benefits realization area. Removed Draft from title.	January 10, 2011
V8.1	Made changes to emphasize the multiple phases involved in implementation, to incorporate newly defined corporate priorities and to remove Mobility aspects from costs and benefits estimates.	February 3, 2011
V8.2	Minor edits from David Cantrel	February 8, 2011

## FOR GENERATIONS

V8.3	Updates based on feedback from David Lebeter to better describe implementation and business requirements.	February 15, 2011
V8.4	Comments from Ryan Layton based on meeting with Don Stuckert	February 23, 2011
V8.5	Additional information on projected PSW releases and financial benefits ranges based on requests from Don Stuckert and Ryan Layton	February 24, 2011
V8.6	Incorporate comments from Ann-Margaret Tait	March 1, 2011

<b>British Columbia Utilities Commission</b> Information Request No. <b>1.277.2</b> Dated: <b>December 23, 2011</b> British Columbia Hydro & Power Authority Response issued <b>January 31, 2012</b>	Page 1 of 1
British Columbia Hydro & Power Authority <b>F2012 to F2014 Revenue Requirements Application (F12-F14 RRA)</b>	<b>Exhibit: B-15</b>

**277.0 Topic: SPECIFIC PROJECTS**  
**Information Technology and Telecom**

**Reference: Information Technology & Telecom (IT&T)**  
**Exhibit B-1-3, Chapter 6; Section 6.10.1**  
**Exhibit B-1-3, Amended Appendix I, p. 25, line 20**  
**Exhibit B-1-3, Amended Appendix J, p. 161**  
**Plan and Schedule Work Project**

Plan and Schedule Work Project initially had total aggregated capital expenditures of \$16.3 million in the test period. However, in the amended application, this project is expected to go into service. The total project cost is expected to be \$34 million. Further details in Appendix J shows that a business case is expected to be completed in Q3 of F2012.

1.277.2 As the total project cost is estimated to be in excess of \$20 million, does BC Hydro expect to file a separate application with the BCUC in accordance with its capital project filing guidelines as set out in Appendix U?

**RESPONSE:**

**Yes.**

<b>British Columbia Utilities Commission</b> Information Request No. <b>1.277.1</b> Dated: <b>December 23, 2011</b> British Columbia Hydro & Power Authority Response issued <b>January 31, 2012</b>	Page 1 of 1
British Columbia Hydro & Power Authority <b>F2012 to F2014 Revenue Requirements Application (F12-F14 RRA)</b>	<b>Exhibit:          B-15</b>

**277.0 Topic:            SPECIFIC PROJECTS**  
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1.277.1           As the project has already incurred \$2.2 million in cost and no business case has been completed to date, what information is available to support the capital expenditures in the test period?

**RESPONSE:**

**Please refer to the response to BCUC IR 1.277.2.**

<b>British Columbia Utilities Commission</b> Information Request No. <b>1.277.2.1</b> Dated: <b>December 23, 2011</b> British Columbia Hydro & Power Authority Response issued <b>January 31, 2012</b>	Page 1 of 1
British Columbia Hydro & Power Authority <b>F2012 to F2014 Revenue Requirements Application (F12-F14 RRA)</b>	<b>Exhibit: B-15</b>

**277.0 Topic:           SPECIFIC PROJECTS**  
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**Plan and Schedule Work Project**

Plan and Schedule Work Project initially had total aggregated capital expenditures of \$16.3 million in the test period. However, in the amended application, this project is expected to go into service. The total project cost is expected to be \$34 million. Further details in Appendix J shows that a business case is expected to be completed in Q3 of F2012.

1.277.2.1       If not, what opportunities are available to the BCUC to review these costs?

**RESPONSE:**

**Please refer to the response to BCUC IR 1.277.2.**

**Tab 11**

**Expenditure Authorization Request, SAP Financials Licensing Phase 1,  
September 30, 2008, p.5.**

# Expenditure Authorization Request (EAR)

## Section 1 Summary of Expenditures and Approvals

**BCH - SAC**



### 1.1 Project Creation

L8 (chargeable) 1122962

Title Financials Licensing Phase 1A		Project ID. PINIT 1122961		Rev. No.	
Project Initiator Enn Kludorf		Local 73729	Project Manager Enn Kludorf	Local 73729	Date 30-Sep-08
Business Group OCIO / Corp					
<b>Expenditure Type</b> <input checked="" type="radio"/> Specific Capital <input type="radio"/> Recurring Capital <input type="radio"/> Operating Cost Initiatives <input type="radio"/> Deferred DSM <input type="radio"/> Deferred Regulatory Other <input type="radio"/> Land Disposals <input type="radio"/> Capital Retirement			<b>For Capital Projects Only</b> Estimated Project Start Date: <u>Dec. 1/09</u> Estimated In-Service Date: <u>Mar. 31/10</u>		
<b>Request Reason</b> <input checked="" type="radio"/> New <input type="radio"/> Revision:		<input type="radio"/> Scope Change <input type="radio"/> New Phase <input type="radio"/> Cost Change <input type="radio"/> Other please specify: _____		High Level Business Driver: <input checked="" type="radio"/> Sustaining <input type="radio"/> Growth	
		Originating Department (CC) <u>9805</u> End Use Department (CC) <u>1320</u>			
<b>Project Description</b> This is required to secure the first phase of SAP licensing to support BC Hydro's SAP program. To execute the IT&T strategy, it is evident that additional SAP licensing will be needed, so this is the first stage of that acquisition. The annual support fees of 22% of the license cost will be capitalized in the development stage of the project in F09 & F10.					

### 1.2 Investment

Request Dollars ( 000's)	Prior Requests	Current Request	Total Expected Amount	Project Reserve Complete Section 1.5	Total Authorized Amount
Direct Costs				<i>If applicable</i>	
- Capital, (incl Recurring Cap.)		\$ 1,482	\$ 1,482		\$ 1,482
- Operating Costs		\$ 2,200	\$ 2,200		\$ 2,200
- Deferred DSM		\$ -	\$ -		\$ -
- Deferred Regulatory Other		\$ -	\$ -		\$ -
Overhead (COH)		\$ -	\$ -		\$ -
IDC		\$ 125	\$ 125		\$ 125
<b>Total Investment Cost (A)</b>	\$ -	\$ 3,807	\$ 3,807	\$ -	\$ 3,807
<b>Retirement of Capital Assets (Complete Section 6)</b>					
Asset Value (Greater of NBV or Market)	\$ -	\$ -	\$ -		\$ -
Estimated Dismantling Cost	\$ -	\$ -	\$ -		\$ -
<b>Total Authorized Retirement Cost (B)</b>	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Cumulative EAR Total (A+B)</b>	\$ -	\$ 3,807	\$ 3,807	\$ -	\$ 3,807

### 1.3 Required Review & Approvals

Name	ODMS#	Signature	Date
Project Initiator Enn Kludorf			DEC. 11 / 08
Group Controller Carol Richards	625		Dec 12, 2008
Senior Vice President or Vice President			
Jurisdictional Approval (CIO, Properties) Don Stuckert	1260		DEC. 12 / 08
Corporate Financial Evaluation Review Simon Paisley	3497	- see note overlay.	Dec 12 / 08
Financial Approval (CFO) Charles Reid	112		Dec 12 / 08
Chair, CEO or President, or Board			

### 1.4 Delegation of Approval Authority for Contracts and Commitments

Contract / Commitment	Amount	Delegated to (Name)	Delegated by (Title)	Signature	Date

### 1.5 Delegation of Project Reserve

Delegated to	Delegated by	Signature	Date

# Expenditure Authorization Request (EAR)

## Section 2 Annualized Forecast

### 2.1 Project Expenditures by Fiscal Year (Up to date of project completion) ( \$ 000's)

	Prior Expenditures	Fiscal 2009	Fiscal 2010	Fiscal 2011	Fiscal 2012	Balance	Total
Capital (Incl. COH & IDC)		\$ 1,289	\$ 318	\$ -	\$ -	\$ -	\$ 1,607
Deferred DSM							\$ -
Deferred Reg - Other							\$ -
ARO							\$ -
Operating		\$ -	\$ -	\$ 220	\$ 220	\$ 1,760	\$ 2,200
<b>Total</b>	\$ -	\$ 1,289	\$ 318	\$ 220	\$ 220	\$ 1,760	\$ 3,807

*Investigate Capitalization of Maintenance in Development Phase - 12-12-08*

### 2.2 Forecast Annual Net Income Impact (For Years following In-service) ( \$ 000's)

*(This table is only applicable for capital projects > \$100,000)*

	Fiscal 2009	Fiscal 2010	Fiscal 2011	Fiscal 2012	Fiscal 2013 to 2020
Revenue increase					
Cost of Energy					
Operating Costs Increase (decrease)	\$ -	\$ -	\$ 220	\$ 220	\$ 1,760
Depreciation & Amortization	\$ -	\$ -	\$ 161	\$ 161	\$ 482
Grants and Taxes					
Finance Charges					
Other Expenses (Revenues) - Specify:					
Income Before Regulatory Accounts	\$ -	\$ -	\$ (381)	\$ (381)	\$ (2,242)
Regulatory Transfers					
Net Income Impact decrease (increase)	\$ -	\$ -	\$ 381	\$ 381	\$ 2,242

### 2.3 DSM Program

*(This table is applicable for DSM Projects only)*

	Fiscal 20	Fiscal 20	Fiscal 20	Balance	Total for this request	Full Program
Annual Energy Savings (GWh/Yr)					-	
Cumulative Energy Savings (GWh/Yr)					-	
Demand Savings (MW)					-	
Unit Hydro Costs (¢/kWh)					-	
Unit Total Resource Costs (¢/kWh)					-	
		Full Program Year	Final Year			
Market penetration of technology (%)						
Status quo estimate (%)						
Tag on estimate (%)						

# Expenditure Authorization Request (EAR)

## Section 3 EAR Project Information

**3.1 INITIAL SETUP INFORMATION REQUIRED IN PEOPLESOFT PROJECTS**

Request Details  
 Project Description: SAP Financials Licensing Phase 1A  
 Project Type: P (Planned)  
 Status: 1320 (Capital) / xxxxxx (OMA)  
 Dept: 619500 (capital) xxxxxx (OMA)  
 Product (ABC Activity):  
 Account Prefix:

Specific Capital 160000   
  Deferred Reg Exp Other 161000   
  Deferred DSM 079000  
 Operating Costs 600000   
  Recurring Capital 162000   
  Retirements 760000   
  Land Disposals 302000

OTH  
 CU (Computers)  
 CSW (Computer Software) 100%

Business Driver  
 Business Function  
 Asset Categories

Business Group  
 Capital: OMA  
 10022 - BCH SAC 100% 10035 - BCH L6  
 L6 1109462  
 L7 (PINIT) 1122961 L8 (chargeable) 1122962 L7 (PINIT) L8 (chargeable)

## Section 4 Approved EAR Project Information

### FINAL SETUP INFORMATION REQUIRED IN PEOPLESOFT PROJECTS (AFTER EAR APPROVAL)

#### 4.1 Steps to be completed in PeopleSoft Projects

- Project Approval page completed by LOB/SO approver
- Approve the PINIT project by switching the status from "P" to "A"
- Attach document to EAR project - (Justification should be kept on file, attach electronic copy to PINIT project)
- Create project(s) and add to the tree (see appendix I for sample template)
- Create assets and/or assign cost allocations to existing assets via asset detailing (see appendix II for sample template)
- Create a retirement detailing to assign cost allocations to assets and/or retire individual assets (see appendix III for sample template)

#### 4.2 Project-Activity Creation - Request Details

Activity ID	001	(or NEXT)	Activity ID	001	(or NEXT)
Activity Description	Capital		Activity Description	OMA	
Activity Type	STD (Standard)		Activity Type	STD (Standard)	
Status	A (Approved)		Status	A (Approved)	
Account Prefix			Account Prefix		

#### 4.3 Entry of EAR Approved Amount in PeopleSoft Projects

Activity ID	Analysis Type (EAR or EAU)	Account Prefix	Resource Type	Resource Cat	Resource Sub-category	Resource Amount (\$)
001	EAR	160	X	XX	XXX	1,607
002	EAR	600	X	XX	XXX	2,200
TOTAL						\$ 3,807

Note: the total resource amount must equal the Cumulative EAR Total for the Current Request in Section 1.2. The level of detail entered is discretionary, but should reflect the level of detail in your Business Group reporting requirements





# **SAP Licensing Phase 1A Business Case Sept 24, 2008**

## **Executive Summary**

This document has been prepared to seek financial approval for the purchase of SAP software and associated maintenance valued at \$1.2 million (including taxes and maintenance) as negotiated with SAP Canada Inc.

This is expected to be the first of a series of purchases from SAP to secure sufficient licensing to support BC Hydro's SAP program. This is in alignment with the recently adopted IT&T strategy as approved by ARMC; to execute the SAP Program, it is evident that additional SAP licensing will be needed, so this is the first stage of that acquisition.

To mitigate overall financial risk to BC Hydro, a number of protections are included within the contractual framework to contain BC Hydro's overall financial commitment. These include the ability to buy licensing incrementally as needed and the ability to exchange software purchases in the future as BC Hydro's SAP program evolves.

## **Background**

As per BC Hydro's new IT&T Strategy as endorsed by ARMC in May 2008, SAP software has been identified as the "default solution" to be used for ERP related IT implementations. The intent is to roll out the program incrementally as driven by business requirements and associated business case justifications.

The initial major focus area is Finance; BC Hydro is currently conducting an SAP Financials Blueprint project, which is expected to culminate in the first major implementation of SAP outside of the existing 2003 CCS implementation. Follow-up projects may be initiated other functional areas such as Project Management, Human Resources, Work Management, Supply Chain, etc as driven by business needs.

To facilitate execution of the overall SAP program, BC Hydro needs to secure enterprise licensing, and accordingly detailed negotiations with SAP to establish an overall licensing framework have been underway for a number of months.

## **Alternatives**

Three basic approaches to negotiating an Enterprise Licensing Agreement with SAP were considered:

*1 / Buy full enterprise license up front.* BC Hydro considered entering into a negotiation with SAP for the purposes of buying comprehensive enterprise licensing for SAP. This option was not selected since the full extent and timing of the SAP program is not yet known (i.e. these will be driven by the business) so therefore this option has a large risk of 'overbuying'. As well, this option triggers multiple internal funding and business case

issues since a large commitment would be needed upfront without certainty that all parts of the system will be used.

*2 / Negotiate individual parts and buy as you go.* Another option is to negotiate each incremental component with SAP as the program proceeds. This approach, while limiting upfront financial commitment, places BC Hydro in a disadvantaged position as the program proceeds. SAP will be less likely to negotiate favourable economic terms as the program proceeds since BC Hydro's options in regards to the overall program will be limited.

*3 / Negotiate overall contract upfront, but buy as you go.* The final option is to negotiate overall enterprise licensing for all of the primary SAP components that BC Hydro may ultimately, but make commitments (i.e. buy) only as those parts of the SAP program become certain. For example, assuming that the business case for Financials is approved after Blueprint stage in December, then BC Hydro would secure the full licensing to facilitate the Financials implementation as previously negotiated.

Option 3 has clear overall advantages for BC Hydro since this provides overall cost certainty and containment, yet does not lead to unnecessary financial commitments until the time where various software components are formally required. BC Hydro is therefore pursuing this option during the current negotiations with SAP.

### **Detailed Description of Selected Approach**

Given that BC Hydro has adopted alternative 3, the specific objectives during the current contract negotiations have been as follows:

1. to establish upfront overall cost certainty and cost containment on SAP software licensing, including a cost effective overall program cost.
2. to adopt a "pay-as-you-go" approach, meaning that commitments to SAP are made incrementally. Typically this will occur only as business case approval is achieved for each incremental SAP program component.
3. to ensure that an "exchange clause" is embedded within the SAP contract, allowing BC Hydro to exchange unused SAP software components for other modules of equivalent value. This is important since given the extent and complexity of the overall SAP program and the associated SAP solution, there needs to be maximum after-the-fact flexibility to adapt as detailed design and implementation decisions proceed. This helps to mitigate rollout risk as the program evolves.

At this stage BC Hydro has made considerable progress during negotiations and there is comfort that these three goals are being achieved. BC Hydro has received detailed information from SAP, including documents articulating overall program software costs with negotiated discounts, and contractual language which provides appropriate risk mitigation around ability to exchange licensing as needed. The overall parameters of the proposed deal have thus been outlined and the mutual intent of the parties is clear.

BC Hydro and SAP are now proposing to make a limited commercial commitment in the form of an initial purchase of SAP Financials software valued at \$1M, plus associated maintenance and taxes.

As per the framework negotiated with SAP, the overall cost of the Financials licensing is estimated at follows:

Current Phase 1A	1,000,000
Phase 1B (expected Dec/08)	900,000
Per Seat User Licensing (assume 1,500 seats)	<u>1,200,000</u> **
Total Financials Licensing	3,100,000

\*\* this component will require additional refinement pending detailed analysis of number of seats of various roles that will be needed for SAP Financials.

There are three reasons for making this investment at this time (i.e. commit by September 30):

- 1) Concluding the agreement now provides certainty around two critical licensing terms that BC Hydro has negotiated with SAP. These concern BC Hydro's need to achieve unlimited use licensing (i.e. a simplified licensing structure for BCH where professional users have access to all SAP functionality). Also, the overall discount structure and associated pay-as-you-go approach for the suite of software that BC Hydro needs as it builds out the SAP program can be locked in. Both of these terms are non-standard arrangements and will expire by Sept 30. It is possible that SAP Canada may be able to extend these terms again in the future, but the vendor will need to go through an internal re-approval process with SAP Germany after expiry of their 3<sup>rd</sup> financial quarter.
- 2) The new agreement considerably strengthens BC Hydro's existing SAP agreement (from 2002) in the area of Protection of Privacy since it explicitly binds SAP to comply with the FOIPP Act via attachment of BC Hydro's Protection of Privacy Schedule.
- 3) The new agreement provides BC Hydro with access to the software components required for the SAP Financials project detailed design stage.

This business case therefore seeks funding for \$1,200,000.-, which is effectively a down-payment on the software needed to enable the Financials phase of the overall program. This will also enable the overall contract negotiations to proceed into the next phase so that additional detailed terms and conditions can be concluded.

### **Financial Risk Mitigation**

In the event that for some unforeseen circumstance the overall deal fails to materialize, the exchange clause provision mitigates financial risk to BC Hydro in the following way: BC Hydro will be able to exchange the \$1M value for any other SAP software. This would include expansion of current SAP CCS licensing, AML related SAP functionality, or any other SAP products as may be needed by BC Hydro in the future in accordance with the IT&T strategy. Overall the likelihood of not consuming at least \$1M in SAP software seems unlikely given that ARMC has endorsed SAP as the default ERP solution and there are many business drivers across BC Hydro creating demand for improved ERP solutions.

An additional component of financial risk relates to the ongoing annual maintenance payment that BC Hydro commits to when purchasing software. This is charged at 22% of the original purchase price, or \$220,000 for the purchase contemplated in this business case. In the event that BC Hydro fails to use this software or any other exchanged software, then maintenance can be cancelled under the terms of the proposed contract.

### **Related Activities**

As indicated earlier, the first expected future rollout of SAP beyond the existing CCS footprint is in the area of Financials. The Financials Blueprint project was initiated in August 2008 and is expected to culminate in a full Financials business case by the end of December 2008.

This business case and the associated \$1.2M expenditure will be referenced in the full Financials business case (i.e. Financial Systems Replacement Project) since the software components purchased at the current time are related to SAP Financials.

Assuming that the BC Hydro business case for the Financial Systems Replacement Project is approved in the December 2008 timeframe, this will then trigger the next incremental purchase of SAP software (i.e. the balance of the SAP Financials licensing).

## **Funding Request Details**

Approval is sought as follows:

### Expenditure

- Software Purchase: \$1,000,000. + 5% gst + 7% pst = \$1,120,000
- Maintenance for balance of 2008 @ 22% for 3 months = \$55,000. + 5% gst + 7% pst = \$61,600
- TOTAL \$1,181,600.-, (rounded to \$1.2M)

### Funding source:

- the funding for this purchase will come from the OCIO IT capital budget in department 9805.
- In particular the existing budget for the PeopleSoft Upgrade project will not be required since this is now being replaced by the SAP program as per the IT&T strategy.

Funding classification: capital.

## **Recommendation**

As per the rationale outlined above, funding for \$1.2M is sought and recommended.

Enn Kiudorf,  
BC Hydro SAP Enterprise Lead, OCIO

**Tab 12**

**BC Hydro, SAP Enterprise Licensing Business Case Update, March 30, 2009, p.1.**

## **SAP Enterprise Licensing Business Case Update March 30, 2009**

### **Executive Summary**

This document has been prepared to supplement and amend the original business case for SAP Licensing that was prepared in September 2008. At that time, BC Hydro purchased software valued at \$1M from SAP and financial approval was granted via EAR #1122961. The initial purchase was executed as a down-payment on overall licensing and was needed to effectively "lock in" the pricing as had been negotiated earlier in 2008.

BC Hydro now proposes to purchase the next phase of SAP software licensing as needed to enable execution of its IT&T strategy in the area of enterprise applications. This purchase is valued at \$2.1M, for a total SAP enterprise licensing cost to date of \$3.1M plus taxes and maintenance.

Once this purchase is completed, BC Hydro will have acquired licensing for the following SAP software components:

- 1,500 professional user seats (unlimited use)
- 2,000 employee self service seats (restricted to certain casual end user roles)
- licensing for all components required for the Financials project
- the majority of the licensing needed for Project and Portfolio Management, including full licensing to the SAP RPM product. (May need to supplement this in the future by purchasing additional user seats depending on final user counts for PPM).
- licensing for an online end user training package as needed to support various SAP rollouts (i.e. RWD Productivity Pak)
- partial licensing for Human Resources
- partial licensing for Work Management and Supply Chain
- licensing for various SAP common infrastructure and tools including Business Intelligence (BI), Governance Risk & Compliance (GRC), Portal and middleware (PI)

A significant feature of the March 2009 software is the inclusion of purchase options for up to \$4.3M for the balance of the software needed to execute future BC Hydro projects such as PPM, HR, Work Management, Supply Chain, etc.

If BC Hydro chooses to exercise all of the accompanying purchase options, the total cost of software would total \$7.4M for 4,000 professional seats (unlimited usage), 2,000 self service seats and all the associated software as defined in the agreement. By way of comparison, the cost of the initial 2002 purchase of SAP software was \$8M for coverage in the Customer Care area for 1,200 limited professional seats.

Once this purchase including options is complete, BC Hydro expects that SAP enterprise licensing requirements will be substantially met for its SAP Program. There may be some minor additional purchases in coming years (e.g. various specialty SAP or third

party applications, or additional seats if BC Hydro's employee population grows), but these are expected to be of relatively small value. The only significant exception is coverage for SAP functionality related to Advanced Metering as needed to enable the SMI project. Such licensing is being arranged separately as part of the procurement process for the SMI program.

A significant benefit in this contract is that BC Hydro has not committed to pay full capital cost nor annual maintenance for the \$7.4M amount, but is only making this commitment for components purchased to date (i.e. \$3.1M). This is in keeping with the "pay-as-you-go" philosophy. Therefore, maintenance will not be payable on other areas such as HR, Work Management, Supply Chain until BC Hydro has project which are sufficiently advanced in those areas. Through inclusion of formal purchase options, BC Hydro has mitigated future financial risk of the SAP Program since prices and discounts have been locked in and can be exercised at BC Hydro's option.

### **Alternatives (Updated for March 2009)**

As presented in the original September 2009 Business Case, three basic approaches to negotiating an Enterprise Licensing Agreement with SAP were considered. The original analysis is repeated below along with an update for March 2009.

As per the original September 2008 analysis, alternative 3 continues to be the recommended approach and the March 2009 agreements are fully consistent with this direction.

#### ***1 / Buy full enterprise license up front***

September 2008 Analysis: BC Hydro considered entering into a negotiation with SAP for the purposes of buying comprehensive enterprise licensing for SAP. This option was not selected since the full extent and timing of the SAP program is not yet known (i.e. these will be driven by the business) so therefore this option has a large risk of 'overbuying'. As well, this option triggers multiple internal funding and business case issues since a large commitment would be needed upfront without certainty that all parts of the system will be used.

March 2009 Update: there is now more certainty on the full extent of the SAP program. Numerous projects are advancing, or in detailed analysis phases (Financials, Project Management, certain HR components, some Work Management components). Additionally there is strong organizational acceptance and endorsement of the enterprise SAP strategy. Nevertheless, there continues to be risk of 'overbuying' and the associated funding issues for software acquisition and maintenance payments remain.

#### ***2 / Negotiate individual parts and "pay as you go".***

September 2008 Analysis: Another option is to negotiate each incremental component with SAP as the program proceeds. This approach, while limiting upfront financial commitment, places BC Hydro in a disadvantaged position as the program proceeds. SAP will be less likely to negotiate favourable economic terms as the program proceeds since BC Hydro's options in regards to the overall program will be limited.

March 2009 Update: this alternative continues to be problematic for the reasons stated above.

**3 / Negotiate overall contract upfront, but "pay as you go".**

September 2008 Analysis: The final option is to negotiate overall enterprise licensing for all of the primary SAP components that BC Hydro may ultimately need, but make commitments (i.e. buy) only as those parts of the SAP program become certain. For example, assuming that the business case for Financials is approved after Blueprint stage in December, then BC Hydro would secure the full licensing to facilitate the Financials implementation as previously negotiated.

March 2009 Update: in the period following the September 2008 purchase, SAP and BC Hydro continued negotiations with a view to finalizing an agreement. BC Hydro's objectives were to secure the licensing rights needed for near term projects and firm options for future projects, and that these options must be consistent with the pricing established during the September 2008 discussions. During these negotiations, SAP actively promoted a more substantial deal along the lines of Option 1. The execution of the September 2008 contract has been advantageous to BC Hydro since it has been used to reinforce full consistency in the pricing and terms associated with the balance of the contract. Negotiations on details have been lengthy, but contract terms have now been agreed that include the purchase of an additional \$2.1M in software delivered in March 2009 with firm options for the balance of the software as needed for future parts of the SAP Program. This meets BC Hydro's objectives as stated above.

**Description of Selected Approach**

This business case recommends Option 3 and the license agreements have accordingly been established along these lines.

Details are:

1. Software Licensing. In March 2008, BC Hydro is committing to an additional \$2.1M contract to supplement the \$1M agreed in September for a total of \$3.1M. This cost is being funded as per this business case so that all Enterprise SAP licensing costs are contained in one EAR. The full details are outlined in Appendices F, G H, I of the Contract (these are commercially sensitive and will not be attached to this business case, but are available for viewing as needed). BC Hydro hence establishes usage rights to the following SAP components:
  - o 1,500 professional user seats (unlimited use)
  - o 2,000 employee self service seats (restricted to certain casual end user roles)
  - o licensing for all components required for the Financials project
  - o the majority of the licensing needed for Project and Portfolio Management, including full licensing to the SAP RPM product. (May need to supplement this in the future by purchasing additional user seats depending on final user counts for PPM).

- o licensing for an online end user training package as needed to support various SAP rollouts (i.e. RWD Productivity Pak)
  - o partial licensing for Human Resources
  - o partial licensing for Work Management and Supply Chain
  - o licensing for various SAP common infrastructure and tools including Business Intelligence (BI), Governance Risk & Compliance (GRC), Portal and middleware (PI)
2. Software Options. As discussed earlier, the execution of these agreements establishes the formal rights of BC Hydro to purchase additional software at locked in prices. This achieves cost certainty on future phases of the SAP Program should BC Hydro elect to proceed with those projects using SAP software. The details of these options are included in Appendix G of the agreement (again not attached to business case due to sensitivity). If BC Hydro exercises these options, this is expected to trigger further updates to this business case.
3. Software Maintenance. In executing these Software Licensing Agreements, BC Hydro is making a commitment to pay 22% maintenance per annum on the net negotiated purchase price. These maintenance components payable to SAP will be dealt with as part of the business cases of individual projects; this achieves linkage and matching of ongoing operating costs including an appropriate share of software maintenance with associated business benefits.

### **Funding Request Details**

Approval is sought as follows:

#### Expenditure

- Software Purchase; \$1,000K (Sept 2008) +\$2,100K (March 2009) = \$3,100K
- GST at 5% = \$155K
- PST at 7% = \$217K
- TOTAL \$3,472K

#### Funding source:

- This is an ex-plan expenditure and was not budgeted in F2009.

Funding classification: capital

### **Recommendation**

As per the rationale outlined above, funding for an additional \$2.1M is sought and recommended. This raises the overall value of the business case to \$3.1M plus tax, for a total of \$3.5M.

Enn Kludorf,  
BC Hydro SAP Enterprise Lead, OCIO

*within Plan?*

**Tab 13  
BC Hydro, Summary of Expenditures and Approvals, Aug 18, 2010**

Section 1 Summary of Expenditures and Approvals

1.1 Project Creation

EAR Title		Financial Systems Replacement Project		Project ID.		YT-00008		Rev. No.	
Project Initiator		Local		Project Manager		Local		Date	
Enn Kiudorf		73729		Enn Kiudorf		73729		Aug18-10	
Expenditure Type:	Specific Capital			For Capital Projects Only					
Request Reason:	Revision			Estimated Project Start Date:					
If EAR Revision:	Other (specify below):			Estimated In-Service Date:					
	Additional work/costs associated with BCUC Uniform System of Accounts (USoA), changes to Legacy Systems, ESB, PPM and ABSU costs. See associated memo for details.			High Level Business Driver:					
				Requesting Cost Centre:					
				Responsible Cost Centre:					

Brief Project Description

This project will provide an assessment and plan (collectively, the Blueprint) to support a decision to proceed to implement SAP Financials to replace existing Financial Systems (PeopleSoft Financials v8.0). The previous request for Initiative OMA was approved under EAR #1088311 (POPER) 2008.

1.2.A Investment

Request Dollars ( 000's)	Prior Requests	Current Request	Total Expected Amount	Project Reserve Complete Section 1.5
Direct Costs				<i>If applicable</i>
- Capital, (incl Recurring Cap.)	\$ 14,715.0	\$ 1,139.7	\$ 15,854.7	
- Initiative OMA Costs (IOMA)	\$ 3,520.0	\$ 70.4	\$ 3,590.4	
- Deferred Regulatory Other			\$ -	
Overhead (COH)			\$ -	
IDC	\$ 465.0	\$ (11.0)	\$ 454.0	
Total Investment Cost (A)	\$ 18,700.0	\$ 1,199.0	\$ 19,899.0	\$ -
Asset Value (Greater of NBV or Market)	\$ -	\$ -	\$ -	
Estimated Dismantling Cost (IOMA)	\$ -	\$ -	\$ -	
Total Authorized Retirement Cost (B)	\$ -	\$ -	\$ -	\$ -
Cumulative EAR Total (A+B)	\$ 18,700.0	\$ 1,199.0	\$ 19,899.0	\$ -

1.2.B Ongoing Base OMA, Savings (cash) and Soft Benefits (non-cash)

	Prior Requests	Current Request	Total Expected Amount	Project Reserve Complete Section 1.5
Annual Base OMA Costs (BOMA)	\$ -	\$ 1,708	\$ 1,708	
Annual Savings (cash)	\$ -	\$ -	\$ -	
Annual Soft Benefits (non-cash)			\$ -	

1.3 Required Review & Approvals

	Name	ODMS#	Signature
Project Initiator	Enn Kiudorf	00016985	
Business Owner (for BIS projects)	Cheryl Yaremko	00013966	
OCIO Business Management	Ryan Layton	00013592	
Vice President/CIO	Don Stuckert	00013605	
Group Controller & Corporate Financial Evaluation Review	Simon Paisley	00016868	
Director of Finance	Carol Richards	00013544	
Financial Approval (CFO)	Charles Reid	00013679	
CEO	n/a		
Board of Directors	n/a		



3
Business Group
BCH OCIO
Enterprise Applications Initiatives
Replace BC Hydro's on August 22nd,

<b>Total Authorized Amount</b>	
\$	15,854.7
\$	3,590.4
\$	-
\$	-
\$	454.0
\$	19,899.0
\$	-
\$	-
\$	-
\$	19,899.0

<b>Total Authorized Annual Amount</b>	
\$	1,708
\$	-
\$	-

Date

**1.4 Delegation of Approval Authority for Contracts and Commitments**

Contract / Commitment	Amount	Delegated to (Name)	Delegated by (Title)	Signature

**1.5 Delegation of Project Reserve**

Delegated to	Delegated by	Signature

**Section 2 Annualized Forecast**

**2.1 Project Expenditures by Fiscal Year (Up to date of project completion) ( \$ 000's)**

	Prior Years	Fiscal 2011	Fiscal 2012	Fiscal 2013	Fiscal 2014	Fiscal 2015+
Capital (Incl. COH & IDC)	\$ 14,991	\$ 1,318	\$ -	\$ -	\$ -	\$ -
IOMA	\$ 2,798	\$ 792	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 17,789</b>	<b>\$ 2,110</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**2.2 Forecast Annual Net Income Impact (For Years following In-service) ( \$ 000's)**

*(This table is only applicable for capital projects > \$100,000)*

	Fiscal 2011	Fiscal 2012	Fiscal 2013	Fiscal 2014
Revenue increase				
Cost of Energy				
Operating Costs increase (decrease)	1,708	1,708	1,708	1,708
Depreciation & Amortization	1,631	1,631	1,631	1,631
Grants and Taxes				
Finance Charges				
Other Expenses (Revenues) - Specify:				
Income Before Regulatory Accounts	\$ (3,339)	\$ (3,339)	\$ (3,339)	\$ (3,339)
Regulatory Transfers				
Net Income Impact	\$ (3,339)	\$ (3,339)	\$ (3,339)	\$ (3,339)

**2.3 DSM Program**

*(This table is applicable for DSM Projects only)*

	Fiscal 20	Fiscal 20	Fiscal 20	Balance	Total for this request
Annual Energy Savings (GWh/Yr)					-
Cumulative Energy Savings (GWh/Yr)	-	-	-	-	-
Demand Savings (MW)					-
Unit Hydro Costs (\$/kWh)					-
Unit Total Resource Costs (\$/kWh)					-
		Full Program Year	Final Year		
Market penetration of technology (%)					
Status quo estimate (%)					
Tag on estimate (%)					

Date

Date

Total
\$ 16,309
\$ 3,590
\$ 19,899

Fiscal 2015 to 2020
1,708
9,785
\$ (11,493)
\$ (11,493)

Full Program

**Tab 14**  
**BC Hydro, SAP Enterprise Program, Common Infrastructure,**  
**July 31, 2009**

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**BC Hydro** 

**OFFICE OF THE  
CHIEF INFORMATION OFFICER**

**SAP ENTERPRISE PROGRAM  
COMMON INFRASTRUCTURE**

JULY 31, 2009

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**DOCUMENT CONTROL**

<b>Author</b>	<b>Role</b>	<b>Date</b>
<b>Enn Kiudorf</b>	SAP Enterprise Lead	July 31, 2009

<b>Approved by</b>	<b>Signature</b>	<b>Date</b>
<b>Carol Richards, Corporate Controller</b>		
<b>Cheryl Yaremko, Chief Accounting Officer</b>		
<b>Don Stuckert, VP and CIO</b>		
<b>Charles Reid, Exec VP Finance and CFO</b>		

*Change History*

<b>Version</b>	<b>Reason for Version</b>	<b>Date</b>
<b>Version 1</b>	<b>First draft</b>	<b>January 15, 2009</b>
<b>Version 2</b>	<b>Include refined estimates for SAP testing tools</b>	<b>July 31, 2009</b>
<b>Version 3</b>	<b>Incorporate minor wording refinements from B. Milne</b>	<b>August 28, 2009</b>

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## 1.0 CLASSIFICATION

The project is classified as Sustaining capital and is included in the F10 Capital Plan.

## 2.0 EXECUTIVE SUMMARY

This business case seeks funding for \$4.2M to provide necessary common SAP infrastructure to enable BC Hydro's overall SAP Program.

In developing the IT&T Strategy during 2008, BC Hydro recognized that the as-built IT landscape has delivered mixed results in supporting the business and that our current IT capabilities do not adequately support the strategic goals of the company.

A particularly significant issue is the state of core business applications, since BC Hydro has deployed four different ERP solutions: Ventyx PassPort for work management and supply chain, SAP for customer processes, PeopleSoft for finance and human resources, and JD Edwards to support some aspects of construction work. In addition there are many custom and packaged point solutions to support a variety of sub-processes and organizational requirements.

The overall situation for business applications is characterized by weak business integration, inconsistent data and information, ageing and difficult to maintain systems, a high total cost of ownership, and sub-optimal overall usability. The complexity of the environment makes it inflexible for supporting One Hydro business strategies and emerging requirements.

This situation was analyzed and two options were considered:

- best of breed - taking the current ERP solutions and integrating the best components,
- a single ERP (SAP).

The analysis was based on cross-functional process needs, integrated databases for single source of information, and total cost of ownership. We also looked at what the industry is using and what was considered best practice. SAP was the industry leader and there have been many successful deployments in utilities similar to BC Hydro. In addition, BC Hydro already has an extensive and successful SAP investment onto which additional functionality can be layered.

The IT&T strategy therefore recommended deploying an SAP environment, and to incrementally deploy it in the financial and operational business groups over a 3-5 year period. The Executive Team (ET) endorsed this direction in May 2008.

This business case therefore seeks funding to facilitate delivery of this strategy through the provisioning of the necessary common SAP infrastructure components, which in turn enable the Program to rollout functionality beyond the existing Customer processes.

This business case covers the procurement and basic installation of these various base components. Then, as various SAP initiatives proceed over the coming years, each of the individual initiatives will leverage and further configure these components under the common purpose of creating a common, user-centric, seamless, consistent, integrated overall ERP experience and environment.

For further clarity, this business case does not include costs to deliver specific business requirements which are in-scope for individual projects such as Customer Care, Financials, Project Management, etc. Rather the purpose of this business case is to provide the base common SAP infrastructure components, onto which various projects will then build and deliver their in-scope functionality. For example, the Financials Systems Replacement (FSR) Project business case includes all of the costs associated with delivering Financials business requirements (financials process related configuration, testing, report development, security setups, etc.) while this business case provisions only the base infrastructure onto which the specific requirements of individual SAP projects can be configured.

The common SAP infrastructure components covered by this business case are:

1. SAP Portal – to enable a common, user friendly entry point into SAP for all functional areas. As the SAP program is built out incrementally, additional functions will be layered into the Portal.
2. SAP Employee Self Service / Manager Self Service (ESS/MSS) – to allow casual users of the system in areas such as HR, expense approval, supply chain, etc. to access various self service employee or managerial functions in a common user-friendly manner.
3. SAP Business Warehouse / Business Intelligence Environment (BW/BI) – to provision a common set of business reporting capabilities that expose SAP data, information, reports and analytical capabilities. As the SAP Program proceeds, the extent of the available business information will be continually enhanced.
4. SAP Governance Risk & Controls (GRC) and Single Sign-On (SSO) Security Setup – to install SAP's GRC module so that individual projects can leverage this when defining their SAP security configurations and role definitions. This will deliver improved role based controls and associated segregation of duties. Also, to establish and connect the SAP security setup with BC Hydro's common enterprise security repository
5. SAP Process Integration (PI) – to establish the PI interface development environment in conjunction with BC Hydro's enterprise service bus architecture. This allows for a services based interface development approach whereby SAP information across various subject areas can be published on the ESB.
6. SAP Training Development Environment – to establish the RWD uPerform training environment as needed to develop and deploy end-user training materials for various SAP projects.
7. SAP Solution Manager Configuration – to enhance Solution Manager, which is a necessary component to help manage and administer the overall SAP landscape. The initial installation and configuration was implemented at BC Hydro in 2007 during a major SAP Upgrade. However, as the landscape is enhanced with additional necessary components such as Portal, PI, Test Tools,

etc., it is necessary to also enhance SM so that overall SAP administration is efficient and has integrity.

8. SAP Test Infrastructure – to procure and install an automated test infrastructure for use across all SAP subject areas. This will improve the efficiency of SAP development and sustainment activities by automating regression testing of system enhancements. Initial use is expected in the Customer, Financials and Project Management process areas.
9. SAP Landscape Upgrades – to implement various minor system updates to BC Hydro's existing SAP system. BC Hydro completed a significant SAP upgrade in 2007 which migrated the SAP technology from version R4.6c to ECC6. Since that time SAP has released various enhancements and improvements to the systems, so some minor system updates are now needed.

### **3.0 ISSUE DEFINITION**

BC Hydro's existing SAP landscape has functioned well as a single purpose Customer Care focused environment. However, to enable the expanded use of SAP as an enterprise class ERP system capable of supporting multiple process areas, additional common SAP infrastructure is needed.

This enables the SAP Program to develop in an orderly, consistent and scalable manner and ensures the adoption of common approaches and SAP toolsets across the enterprise including Financials, Project Management, Customer Care and associated Reporting scope, as well as enabling potential future development in areas such as Human Resources, Supply Chain, Work Management and Smart Metering.

### **4.0 BACKGROUND**

SAP was introduced into BC Hydro in 2003 to support the Customer Care business processes including approximately 1,100 users spread across both BC Hydro and ABSU. Since that time the system has been extended in numerous ways to enhance functionality within various sub-process areas including metering, customer interaction and rates related configuration, but the overall user constituency has remained fairly constant and use to date has not expanded beyond the core Customer process area.

In 2007, BC Hydro undertook a major release upgrade project to migrate from the old SAP technology (R4.6c) to SAP's new Netweaver architecture (ECC6). This was a necessary maintenance upgrade as needed to maintain ongoing support from SAP, with the added benefit that it proactively positioned BC Hydro for future extensions in the use of SAP in areas such as Smart Metering and Customer Relationship functionality.

In 2008, BC Hydro's IT&T Strategy indicated that SAP should be used as the default ERP system and its use should be expanded through incremental configuration beyond the Customer Process realm. While the existing SAP ECC6 system includes the underlying core business functionality that BC Hydro needs, additional peripheral SAP components and systems must also be installed and configured to allow SAP to function

as a comprehensive enterprise class system, and to fully realize the IT&T Strategic direction.

This business case hence describes, and seeks funding for the additional SAP Common Infrastructure components as needed to properly host and integrate business processes and associated reporting in areas spanning Customer Care, Finance, Human Resources, Project Management, Work Management, Supply Chain and Smart Metering. See also Appendix D-1 for applicability of components across business process areas.

## **5.0 KEY ASSUMPTIONS**

SAP will continue as BC Hydro's default ERP platform. This assumption is solid since BC Hydro recently confirmed the SAP centric direction after a thorough review including endorsement by BC Hydro's Executive IT&T oversight group, and has entrenched this into the IT&T Strategy. In addition, there is no evident competing or emerging alternative that promises comparable benefits.

BC Hydro will proceed with a substantial amount of SAP related work. Even though SAP becomes the default ERP system for major projects, there still needs to be a high level demonstrable degree of business process fit (i.e. 80/20). At this stage this assumption is solid since work is proceeding on numerous fronts including Customer Care extensions, Finance, Project Management and Reporting.

## **6.0 ANALYSIS**

### **6.1 Overview of Benefits**

The benefits associated with the scope of work proposed under this business case fall into the following areas

- End User Benefits – facilitates a higher quality, or simpler, user experience for end users, better integration of business information, and other improvements to both the perception and the reality of the IT solution as an enabler rather than an inhibitor for 'getting work done'.
- Business Process Benefits – enables business processes and/or improved controls, as needed to provide comprehensive business functionality.
- IT Operational Benefits – enables ongoing IT maintenance and sustainment work, including quality and control
- IT Project Delivery Benefits – enables current and future SAP projects to deliver solutions more efficiently and/or effectively.

The next section will describe each of the project scope areas in detail including highlights of the main benefits. See also Appendix D-2 for an additional benefits summary.

It is evident that these four types of benefits also deliver financial savings and reduce the overall Total Cost of Ownership (TCO) of SAP, but no attempt has been made to monetize these since the relationship is usually indirect, and various efficiency assumptions would be needed around employee and process effectiveness uplift, and the ultimate extent to which the SAP solution is fully adopted.

Rather, this project should be considered a strategically necessary investment to enable effective business processes hosted within SAP. This represents an opportunity for BC Hydro to correct its mixed history with ERP implementations by planning for and constructing a comprehensive and integrated enterprise solution including the underlying infrastructure.

## 6.2 Detailed Scope Areas and Associated Benefits

1. SAP Portal – to enable a common, user friendly entry point into SAP for all functional areas. As the SAP program is built out incrementally, additional functions will be layered into the Portal.

The establishment of the SAP Portal brings together and logically organizes all aspects of the Enterprise SAP solution to simplify entry into the application as well as internal navigation. The Portal will present separate tabs for areas within SAP, including the core SAP application ('ECC'), reporting facilities, employee/manager self service and associated help functions.

This will improve the user experience by logically unifying the various SAP related components regardless of which 'technical' system is being utilized. For example, in the case of reporting, the user will be able to access reporting features within both ECC and BI/BW without needing to know which underlying SAP system is being leveraged. This should improve user productivity, reduce user frustration, and improve the efficiency of underlying business processes.

2. SAP Employee Self Service / Manager Self Service (ESS / MSS)– to allow casual users of the system in areas such as HR, expense approval, supply chain, etc. to access various self service employee or managerial functions in a common user-friendly manner.

Installation of the Employee Self Service and Manager Self Service features of SAP will allow individual implementation projects the ability to leverage simple to use screen options to facilitate improved use of the system, especially for occasional or casual users. In this manner the ESS/MSS functionality will be built out incrementally and consistently as BC Hydro's SAP Program proceeds over the coming years, without need for later retrofit, reconfiguration and retraining.

For example, the FSR project will leverage the ESS component to implement Employee Expense entry transactions that are user friendly. Similarly, the MSS features will facilitate a simplified Expense Approval process. While the FSR project will make some limited use of the ESS/MSS features, most of the benefits of ESS/MSS are anticipated during future HR and Supply Chain projects. In the HR realm there are numerous transactions associated with employee data

maintenance, time entry, etc., while the Supply Chain options will include various procurement requisitions and associated approvals.

3. SAP Business Warehouse / Business Intelligence (BW/BI) Environment – to provision a common set of business reporting capabilities that expose SAP data, information, reports and analytical capabilities. As the SAP Program proceeds, the extent of the available business information will be continually enhanced.

The installation of SAP BW / BI will introduce a new system into BC Hydro's SAP landscape, and effectively provisions the SAP data warehouse infrastructure and associated reporting and analytical tools based on the merged SAP and Business Objects toolsets.

Virtually all SAP customers implement SAP BW / BI to enable a rich set of reporting tools and business data, and also to separate reporting related data and processing load from the core SAP transactional system ('ECC'). During the 2003 Customer Care NorthStar SAP implementation, there was the expectation that BW would be implemented within a few years, perhaps together with enhanced Customer Relationship Management functionality. This was not implemented at that time largely because the focus of SAP for BC Hydro remained predominantly operational within the outsourced ABSU Customer Care BPO.

Now that BC Hydro will have Customer Care, Financials and Project Management business processes all hosted within SAP and there is a growing requirement across all process areas to harness the data for decision making and 'intelligence' (rather than simply transactional oversight), there is the need to now separate the transactional and reporting environments and also to provision the necessary end user analytical tools.

4. SAP Governance Risk & Controls (GRC) and Single Sign-On Security Setup – to install SAP's GRC module so that individual projects can leverage this when defining their SAP security configurations and role definitions. This will deliver improved role based controls and associated segregation of duties. Also, to establish and connect the SAP security setup with BC Hydro's common enterprise security repository.

The annual BC Hydro financial audits by E&Y and KPMG have served to highlight the necessity of strong system enabled and procedural controls for the SAP system, which currently bills and collects in excess of \$2B in revenue. As additional transactions and users are added, it is critical that controls around SAP are continually enhanced to keep pace with the increasing complexity of the system.

To facilitate these controls, SAP delivers a series of modules collectively referred to as "GRC" that allow for advanced control features in areas such as security setup and segregation of duties. These features inform the manner in which security roles are defined and allow security administrators to test and control potential segregation of duty conflicts. By implementing GRC, each successive project or sustainment enhancement will be able to design, implement and enforce roles and support internal controls both within and across process areas

(e.g. requisitioning, receiving and payment authorizations), as well as within IT maintenance roles.

5. SAP Process Integration (PI) – to establish the PI interface development environment in conjunction with BC Hydro’s enterprise service bus (ESB) architecture. This allows for a services based interface development approach whereby SAP information across various subject areas can be published on the ESB.

By way of background, SAP technology has recently gone through a major technical update as the underlying systems and tools have been transitioned to the so-called Netweaver platform. Process Integration, or ‘PI’, refers to the part of this SAP technology stack that is concerned with middleware, and specifically how best to connect SAP systems to other external systems.

The installation of SAP PI allows BC Hydro’s SAP Program to develop interfaces in a manner which exploits SAP ‘services’ together with BC Hydro’s ESB standard. This approach to interface development is consistent with BC Hydro’s architectural standards and current industry technology standards, and also promises a variety of maintenance benefits and efficiencies as compared to traditional point-to-point approaches.

6. SAP Training Development Environment – to establish the RWD uPerform training environment as needed to develop and deploy end-user training materials for various SAP projects.

During the 2003 NorthStar implementation, an earlier version of this training environment was utilized to develop and deliver end user training and support materials. As the SAP Program proceeds to expanded use, it is important to install and leverage an up to date training toolset that can be leveraged by each project. This will lead to a comprehensive, standardized and consistent body of SAP materials for end users.

Another significant benefit of the uPerform platform is that it is technically integrated with SAP, which means that the training materials can be made available to users in a context sensitive way. If users are struggling with a specific screen or business concept, the training help facility is provided directly without need for navigation to a separate location.

7. SAP Solution Manager Configuration – to enhance Solution Manager, which is a necessary component to help manage and administer the overall SAP landscape. The initial installation and configuration was implemented at BC Hydro in 2007 during a major SAP Upgrade. However, as the landscape is enhanced with additional necessary components such as Portal, PI, Test Tools, etc., it is necessary to also enhance SM so that overall SAP administration is efficient and has integrity.

Solution Manager does not provide direct end user benefits; rather, it is predominantly an SAP tool to assist and control the administration of the SAP system itself, and ultimately to improve the efficiency of that administration. For

example, Solution Manager can facilitate the orderly documentation of business processes and how these are hosted within SAP, and also the management of test results. The level of investment proposed in this business case will fund a basic level of Solution Manager extensions to establish basic administrative discipline. Full process documentation and test integration is a multi year process which will be achieved incrementally as subsequent SAP projects are executed.

8. SAP Test Infrastructure – to procure and install an automated test infrastructure for use across all SAP subject areas. This will improve the efficiency of SAP development and sustainment activities by automating regression testing of system enhancements. Initial use is expected in the Customer, Financials and Project Management process areas.

Note that this automated test infrastructure is necessary if BC Hydro is to efficiently support business processes in SAP across multiple areas. The current system is contained to Customer Care, so it is relatively easy to control system changes and to manually execute regression tests to ensure that any new changes do not disrupt existing functionality.

However, as the use of SAP expands to new areas, it becomes critical to retest efficiently and comprehensively since the impact of system changes needs to be controlled in multiple process areas, across multiple user constituencies and across multiple development teams. Automated test tools provide the means to automate a base inventory of regression test scripts, which can be re-run prior to promotion of new system changes into production to verify impacts. Without automated test tools, SAP stakeholders will become frustrated with the speed at which needed incremental improvements (i.e. change requests) can be introduced by sustainment teams. Continual improvement of the SAP landscape will be a leading success factor for the SAP Program.

This scope area covers the procurement and installation of automated test infrastructure (as per outcomes of BC Hydro RFP #23), as well as the configuration of an initial limited body of regression test scripts. Development and maintenance of additional test scripts will be covered by future SAP implementation projects.

Note that as per RFP#23, BC Hydro received 5 proposals for the SAP Automated Test Tools scope in July 2009. Based on the written responses this was narrowed to three proponents, and vendor demonstrations have further narrowed this list to two remaining proponents. As of the time of writing this business case BC Hydro is proceeding with final piloting of the two candidate solutions, after which we expect contract negotiations to proceed with the lead proponent. The other three vendors have been eliminated based on either inadequate functionality and/or excessive pricing.

At this stage the overall implementation costs of the two remaining solutions is comparable, so approval of this business case will provide the funds to achieve the targeted scope regardless of which product is selected.

9. SAP Landscape Upgrades – to implement various minor system updates to BC Hydro's existing SAP system. BC Hydro completed a significant SAP upgrade in 2007 which migrated the SAP technology from version R4.6c to ECC6. Since that time SAP has released various enhancements and improvements to the systems, so some minor system updates are now needed.

SAP releases changes to its base system in two ways: 1) enhancement packs (EP), and 2) support packs (SP). In order to keep the overall SAP code base up to date and to extend the useful life of the system, owners of SAP software need to periodically undertake landscape upgrades so that the new functionality can be leveraged to address known operational issues (i.e. support packs), and to install new functionality that has been developed by SAP (i.e. enhancement packs).

Under the terms of BC Hydro's contract with ABSU, periodic support packs are covered under base maintenance, and therefore funding for SP implementation is not being sought here. However, the implementation of EPs does require dedicated funding and therefore funds for EP implementation are needed. The proposed amount covers the necessary ABSU EP implementation costs and associated regression testing.

The implementation of the latest Enhancement Pack from SAP (EHP4) introduces a variety of new features into the system and therefore it is necessary to implement this prior to further significant SAP deployments. By upgrading now to the latest SP and EP levels, future projects can leverage these, and also the amount of regression testing is contained. The two known areas that require EHP4 functionality are the Customer Care Self Service initiative (currently on hold pending availability of EHP4), as well as advanced device management features as needed for the SMI project (timing tbd).

### **6.3 TBL Evaluation and Alignment to Priorities**

The SAP Common Infrastructure Project's links to BC Hydro's short term priorities and Guiding Principles are indirect in nature, and arise from the overall IT&T Strategy to deliver and operate efficient and effective technology systems to enable BC Hydro to achieve its goals. This project is a critical enabler of the IT&T strategy since it allows BC Hydro's SAP Program and its associated projects to unfold in a consistent and scalable fashion, with an emphasis on delivery of the underlying SAP infrastructure (i.e. tools, systems) that enable the implementation of a high quality user experience and associated business processes.

Financial benefits are enabled by the IT&T strategy through incremental consolidation of business processes onto key default platforms (e.g. SAP for enterprise applications), which results in reduced sustainment costs and improved business process efficiencies.

There are no significant direct social or environmental benefits, costs or business drivers associated with this project.

## 7.0 RISK ASSESSMENT and MITIGATION

The following risks and risk mitigation strategies have been identified for the SAP Common Infrastructure Project:

Category	Risk Description	Mitigation Strategy
1. Scope	Scope is not well defined leading to extensive changes resulting in increased cost and schedule delays.	<ul style="list-style-type: none"> <li>N/A – scope has been clearly defined up front.</li> </ul>
2. Schedule	Schedule as defined is insufficient, inaccurate, or fails to recognize potential additional requirements.	<ul style="list-style-type: none"> <li>Schedule and plan has been closely coordinated with other SAP Program initiatives, including Customer Care, FSR and PPM.</li> </ul>
3. Budget	Costs as defined are insufficient, inaccurate, or fail to include potential additional requirements.	<ul style="list-style-type: none"> <li>Costs have been planned in detail from a variety of sources including joint planning with Customer Care, FSR and PPM.</li> <li>Significant additional requirements are not anticipated since scope has been well defined. A contingency allowance (15% on labour) has been incorporated for minor adjustments.</li> <li>The largest single cost risk is in the area of the SAP Automated Test Tools, but this risk has been mitigated through the competitive RFP process which established clarity on procurement and implementation costs.</li> </ul>

Category	Risk Description	Mitigation Strategy
4. Resources	Availability of Resources to implement scope	<ul style="list-style-type: none"> <li>Resources to implement these scope items have been identified and planned, and will be closely coordinated with other activities currently underway in Customer Care, FSR and PPM.</li> <li>Resources will be needed primarily from ABSU and external contractors. Both the AMSA processes and the existing SAP Qualified Suppliers list will be leveraged as needed.</li> </ul>
5. Quality	Quality of delivery does not meet expectations	<ul style="list-style-type: none"> <li>Scope delivery will leverage established BC Hydro standards and processes SAP related work.</li> <li>The main controls are IT DSP, OCIO Quality reviews and external quality reviews of technical scope from SAP.</li> </ul>
6. Benefits Realization	Project will not deliver its intended results.	<ul style="list-style-type: none"> <li>Carry out above steps as well as a post implementation review of actual project results.</li> <li>Integrate lessons learned and sustainment into SAP program.</li> </ul>

## 8.0 PROJECT TIMELINE and ESTIMATES

### 8.1 Implementation Timeline

The SAP Common Infrastructure project is being planned and executed according to three primary blocks of activities. These have been established in order to achieve synergies with other SAP related activities currently underway and planned at BC Hydro.

1) **Project Synergies.** The SAP Netweaver Infrastructure related scope components (see Appendix C for listings) has been planned and will be executed as per the same project milestones as the FSR and PPM projects. This is being done to leverage certain common resources such as project management and technical team activities, and to minimize the overall amount of common testing and change activities that are needed. These activities support the quality and consistency of the overall SAP program and will be undertaken within the existing Project Development environments.

2) **Sustainment Synergies – current.** The SAP Landscape Upgrade components are being executed primarily during the second and third quarters of fiscal 2010. This timeframe has been selected since there is ABSU resource capacity during this period

and there are relatively few competing activities within the current Customer Care portfolio. These activities are largely unrelated to current SAP implementation projects and will be undertaken within the existing Sustainment environments.

3) **Combined Project and Sustainment Synergies.** The SAP Automated test Tools implementation is being planned in close coordination with both Sustainment and Project activities, since both can leverage benefits. The initial implementation will be driven by Customer Care sustainment since this area has mature testing processes. The FSR and PPM projects will also leverage this infrastructure in areas where the initial integration testing and regression testing processes are more efficient. Detailed project plans for this area are still under development (pending finalization of contract), but initial implementation of scope is expected by end of 3<sup>rd</sup> quarter 2010 with work continuing into mid fiscal 2011.

Scope Area	Implemented By
SAP Netweaver Components	April 2010
SAP Landscape Upgrades	October 2009
SAP Automated Test Tools	Various phases from December 2009 through approx. midsummer 2010

## 8.2 Cost Estimates

This project seeks funding for a total for \$4.2M (excluding IDC) as per Appendix B, to be funded from the Approved F10 Budget for this initiative. Expenditure Classification is estimated as \$4.15M Capital and \$50K OMA.

Expected breakdown by fiscal year is as follows:

Expenditure Type	F2010	F2011
Capital	3.95M	0.20M
OMA	0.05M	0
TOTAL	4.00M	0.20M

Please see Appendix B for a detailed overview of the Initiative Costs.

Appendix C provides an additional level of detail on the labour resource components, which make up the majority of the expected project costs

See also Appendix A for overall context on SAP related expenditures and how this project relates to other current activities within the SAP Program

## **9.0 BENEFITS REALIZATION**

### **9.1 SAP Program Governance**

Section 6.2 and Appendix D-2 have documented the benefits that are anticipated from the implementation of the SAP Common Infrastructure Project. Accountability for delivery of these benefits rests with the SAP Enterprise Applications Group within OCIO, which will drive to achieve these benefits through both high quality initial implementations and effective sustainment processes to support and evolve the components as needed (i.e. during subsequent SAP related projects and sustainment activities).

### **9.2 Post Expenditure Review (PER) Requirement**

Given the high profile nature and extent of business impact of BC Hydro's SAP Program, numerous reviews of Program scope are anticipated over the coming years. This project will be reviewed either independently or in conjunction with other SAP related initiatives to ensure that business and financial benefits have been achieved.

**Tab 15**

**BCUC/BC Hydro Response to Information Request 2.139.2  
RRA 2012-2014**

British Columbia Utilities Commission Information Request No. 2.139.3 Dated: March 6, 2012 British Columbia Hydro & Power Authority Response issued April 5, 2012	Page 1 of 1
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**139.0 TOPIC: CAPITAL EXPENDITURES AND ADDITIONS**  
**Information Technology and Telecom**

**Reference: Capital Expenditures and Additions**  
**Exhibit B-1-3, Appendix R**  
**Exhibit B-16: COPE IR 1.58.1, AMPC IR 1.58.1**  
**IT Capital Expenditures**  
**Specific Projects**

According to the AMPC IR1.58.1 response attachment, the Enterprise Financials Upgrade project was estimated at \$7.2 million in the F2009-F2010 RRA, \$14.1 million in the F2011 RRA, and \$16.3 million in the Amended F2012-F2014 RRA.

On page 6 of the Financial Replacement Project business case, included in AMPC IR 1.58.4 response attachment 1, it states that the total Authorized Amount for the project was \$18.7 million. It further states at page 6:

"SAP licensing and common infrastructure costs to support the BC Hydro's overall SAP program including this project are addressed under a separate business case. PeopleSoft Financials decommissioning costs of \$200K are also not included in this business case "

2.139.3 Please explain what projects are included in the "SAP program" reference on page 6 of the Financial System Replacement Project business case, and provide the total cost of the program. Please provide a table of SAP ERP related projects in F2012-14 including for each project the costs prior to F2012, F2012-14 by year, and future expected costs.

**RESPONSE:**

SAP licensing and common infrastructure costs were included in Appendix I of the F2011 RRA under the project names "SAP Financials License" and "SAP Common Infrastructure". The licensing and infrastructure included in these projects supports all projects utilizing the SAP platform (collectively the "SAP Program"). The following table lists the projects from page 25 of the Amended Appendix I that utilize SAP.

	Prior Years Expendi- tures \$million	F2012 Plan \$million	F2013 Plan \$million	F2014 Plan \$million	Forecast Remaining Expendi- tures \$million	Total Cost \$million
<b>SAP ERP Related Projects</b>						
Customer Relationship Management (CRM)	-	-	-	6.0	TBD	TBD
Supply Chain	-	6.6	7.8	-	-	14.4
Talent Management Integration	-	-	-	3.0	3.0	6.0
Asset Management	-	-	1.0	2.0	TBD	TBD
Budget Processing	-	-	-	1.5	0.5	2.0
Plan & Schedule Work	2.2	5.3	15.8	10.3	-	33.7
Project & Portfolio Management (PPM)	13.5	8.1	-	-	-	21.6
BMPower (formerly HRSystems Replacement)	7.0	7.6	-	-	-	14.6
<b>Total Capital Expenditures</b>	<b>22.7</b>	<b>27.6</b>	<b>24.6</b>	<b>22.8</b>	<b>TBD</b>	<b>TBD</b>

<b>British Columbia Utilities Commission</b> Information Request No. <b>2.139.4</b> Dated: <b>March 6, 2012</b> British Columbia Hydro & Power Authority Response issued <b>April 5, 2012</b>	Page 1 of 1
British Columbia Hydro & Power Authority <b>F2012 to F2014 Revenue Requirements Application (F12-F14 RRA)</b>	<b>Exhibit:          B-23</b>

**139.0 TOPIC:            CAPITAL EXPENDITURES AND ADDITIONS**  
**Information Technology and Telecom**

**Reference:    Capital Expenditures and Additions**  
**Exhibit B-1-3, Appendix R**  
**Exhibit B-16: COPE IR 1.58.1, AMPC IR 1.58.1**  
**IT Capital Expenditures**  
**Specific Projects**

Bullet 4 on page 5 of the Financial System Replacement Project business case states:

“It will conform to the BC Hydro Information Technology & Telecommunications (IT&T) Strategy to leverage a single SAP ERP environment, facilitating enablement of IT sustainment cost savings in the long-term.”

The strategy to use a “single SAP ERP environment” does not appear to be outlined in the BC Hydro Information Technology & Telecommunications Five Year Plan in Appendix R.

2.139.4            Please explain if the “single SAP ERP environment” is the SAP program referenced on Page 6 of the Financial System Replacement Project business case.

**RESPONSE:**

**Confirmed.**

British Columbia Utilities Commission Information Request No. 2.139.5 Dated: March 6, 2012 British Columbia Hydro & Power Authority Response issued April 5, 2012	Page 1 of 2
British Columbia Hydro & Power Authority F2012 to F2014 Revenue Requirements Application (F12- F14 RRA)	Exhibit: B-23

**139.0 TOPIC: CAPITAL EXPENDITURES AND ADDITIONS  
Information Technology and Telecom**

**Reference: Capital Expenditures and Additions  
Exhibit B-1-3, Appendix R  
Exhibit B-16: COPE IR 1.58.1, AMPC IR 1.58.1  
IT Capital Expenditures  
Specific Projects**

Bullet 4 on page 5 of the Financial System Replacement Project business case states:

"It will conform to the BC Hydro Information Technology & Telecommunications (IT&T) Strategy to leverage a single SAP ERP environment, facilitating enablement of IT sustainment cost savings in the long-term."

The strategy to use a "single SAP ERP environment" does not appear to be outlined in the BC Hydro Information Technology & Telecommunications Five Year Plan in Appendix R.

2.139.5 Please explain when and by whom this single SAP ERP environment program was approved. Please provide a copy of the business case and indicated where the program is listed in the revised response to AMPC IR 1.58.1.

**RESPONSE:**

The Executive Summary of the BC Hydro IT&T Five Year Plan – Year Two (Appendix R) lists five strategic intents which guide BC Hydro in technology-related decisions. The direction to "simplify the application environment with SAP as the core" is listed as part of the overall direction to simplify, standardize and integrate the IT environment. The Executive Team endorsed this direction in May 2008.

The choice of SAP as a default solution did not approve the implementation of SAP for any project initiatives. Rather, the decision meant that SAP would be evaluated on a project-by-project basis, and selected when it met business needs. As a result, projects arising from the IT&T plan are considered and approved based on the costs and benefits of the specific initiative. Where the project requires integration with ERP functionality (e.g., finance, HR) BC Hydro seeks to leverage the existing SAP foundation rather than acquire and/or configure additional systems. Over time this leads to better integration of business processes as well as simplification of the IT landscape.

The projects listed in the response to AMPC IR 1.58.1 which are considered part of the SAP program are:

- Customer Relationship Management (CRM);

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British Columbia Hydro & Power Authority <b>F2012 to F2014 Revenue Requirements Application (F12- F14 RRA)</b>	<b>Exhibit: B-23</b>

- **Supply Chain;**
- **Talent Management Integration;**
- **Plan & Schedule Work;**
- **Project & Portfolio Management (PPM);**
- **EMPower;**
- **Enterprise Financials Upgrade; and**
- **Multiple smaller projects included in the "Other Capital Expenditures < \$5 million" line.**

The projects all leverage SAP foundational functionality and data, and where appropriate, integrate in additional software to meet business needs (e.g., PPM includes Primavera for project scheduling functionality).

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**139.0 TOPIC: CAPITAL EXPENDITURES AND ADDITIONS  
Information Technology and Telecom**

**Reference: Capital Expenditures and Additions  
Exhibit B-1-3, Appendix R  
Exhibit B-16: COPE IR 1.58.1, AMPC IR 1.58.1  
IT Capital Expenditures  
Specific Projects**

Bullet 4 on page 5 of the Financial System Replacement Project business case states:

“It will conform to the BC Hydro Information Technology & Telecommunications (IT&T) Strategy to leverage a single SAP ERP environment, facilitating enablement of IT sustainment cost savings in the long-term.”

The strategy to use a “single SAP ERP environment” does not appear to be outlined in the BC Hydro Information Technology & Telecommunications Five Year Plan in Appendix R.

2.139.6 Please explain what IT sustainment cost savings have been achieved by the SAP program projects to date. Please provide an illustrative table.

**RESPONSE:**

**Consolidation of the ERP platform is enabling BC Hydro to maintain its application maintenance and sustainment budgets at approximately the same level as in prior years, while increasing functionality and support to the business.**

**The functionality provided by the new ERP solutions is more extensive than the systems that were replaced. For example, the Project & Portfolio Management solution has greater capabilities for scheduling, forecasting and reporting, while the EMPower HR solution has extensive new capabilities to support recruiting and self-service business processes.**

**Tab 16**  
**Debates of the BC Legislature, Spring Session, 2015, pp 7418-20, 7739-40, 7740-1, 8102-3, 8231-2, 8250**

which they couldn't spend in 2012; a forecast of \$79.2 million, which they couldn't spend in 2013; a forecast in 2014 of \$78.4 million and actuals of \$76.4 million.

That's what I'm talking about. I'm talking about it because the promise was made in 2011 and in various other places that they would reduce, as a share of business costs, by 30 percent. In fact, what's happened is IT operating costs as a percentage of total business group operating costs have gone up in this period in spite of this massive increase in the spend.

[1720]

The reason this is drawn to my attention — as, of course, B.C. Hydro will know and the minister will know — is that they've made very significant changes in the leadership in the IT part of B.C. Hydro very recently, when they announced their reorganization. They essentially let go of the author of this plan, and the result of that seems to indicate that B.C. Hydro shares my view that the plan has not met its goals.

Maybe what I'll do just to finish this, so we can get the comprehensive answer that I know the minister loves to give, is to talk about four specific IT projects, and perhaps the minister would like to respond on the specifics now. We're not talking about gathering the data here.

The first is the enterprise financials upgrade project. For people who watched the NWT project, this is at a different level but more significant in terms of increases in cost. It's estimated in the RRA in 2009 at \$7.2 million, estimated in the 2011 RRA at \$14.1 million, estimated in the 2012-14 RRA at \$16.3 million. That's all going up. Then in one of the responses, in that, it goes up to \$18.7 million approved in the business case, so what you have is more than double.

In addition, one of the responses — I'm referring to response IR2.139.1 — shows that there was an additional \$9.2 million in other SAP-related costs.

What I'd like to know, in addition to that, is: all of those SAP projects, which are only partially finished in this massive spend, what were their costs as well? I don't know if you're in a position to respond on that particular project now.

**Hon. B. Bennett:** A completely valid question. I wish I had the comprehensive answer that the member asked for. We don't have the materials available to us to go back to 2009, and nobody wants to just rely on a recollection of this particular project. Again, I undertake to the member that we'll provide the details that he's asked for by tomorrow.

**A. Dix:** Why don't I list off the four projects I'm most interested in? Perhaps that will assist us. They're very significant projects, all of them. The first is the enterprise financials upgrade project. The second is the project and portfolio management project, otherwise known as PPM, which kind of makes sense. The plan and schedule work project and the integrated web portal project — those ones. The minister and Hydro will know that we've also

made a freedom-of-information request for business cases, which we haven't received a response to. I think that Hydro is asking us to narrow the response.

Those are the four projects that we'll maybe engage in between 11 and 12 tomorrow, if that works, or in the afternoon, if that works better. We can talk about that in the morning.

Seeing the time and knowing that we want to do Site C today, just for travel reasons, if nothing else... It's just a little bit I can do for B.C. Hydro.

I guess what I wanted to start with on this was to ask about the minister's decision, in light of what we've heard. If you think of the major construction projects that Hydro has been involved in, most of the dam projects have been done with project labour agreements. Most of the transmission projects have not. There are some with-in them, but generally, they have not been.

As we've gone through, I think a fair person would say — and I could have asked questions about the Mica project — that the project labour agreement projects have come in on time and on budget, as a group, and the transmission projects have done less well, at least in recent years. I think that's a fair conclusion to make.

The significant difference between the two projects, of course, is that one has generally operated under project labour agreements, and the other hasn't. The minister had some occasion to talk about that with my colleague in the CPC system earlier.

[1725]

In March B.C. Hydro decided not to "allow organizing" connected to the Site C project. Now, I presume that decision was made without reading some of the recent court decisions with respect to labour rights. I don't know. But it was overturned.

I wanted to ask the minister whether he, as minister, approved that decision and how that decision came about at B.C. Hydro.

**Hon. B. Bennett:** Again, there are two parts to the answer. I don't know if I'm bursting the bubble of the critic on this or not. I mentioned a minute ago that there were 661 transmission and generation projects that had gone into service over a five-year period leading up to fiscal 2014, and of the 661 projects, Hydro was under budget by 4.75 percent on a total budget of \$3.33 billion.

[1730]

Of all of those 661 projects, only one of them had a project labour agreement. So to the member's conjecture that if you don't have a project labour agreement, you're likely to be over budget is demonstrably untrue. It isn't borne out by the evidence.

With respect to the second part of the question, the way that the common terms became public was that they were put out in draft form to contractors that were interested in bidding on parts of the job. I'm not privy to all of the discussions that I suppose took place at the B.C.

**A. Dix:** Difficult to predict, which is why it might have been premature to put “Debt-free B.C.” on the side of the bus.

In any event, we’ll move on to the third transmission line project. The northwest transmission line, which was barely over budget a few days before the election — the minister will remember; it was a very exciting time for him — a few days after the election was massively over budget. It went from a projected \$395 million to \$746 million at that time — which is, just to be clear, more than \$395 million. Now it says on Hydro’s website that it’s \$716 million.

Can the minister give us an update as to the cost of NTL?

**Hon. B. Bennett:** The member, I’m sure, will very excited to learn that the project is actually going to come in \$30 million less than the budget announced in June of 2013. I know that you’ll be excited about that.

In fairness, this side of the House thinks that that project was and is an important project for the future of the province, not just for that one-quarter of the land mass that exists in the northwest that didn’t have access to the grid but for all of us who will benefit from the activities that have already started to take place in northwestern B.C. The northwestern transmission line is not, as the Leader of the Opposition has referred to it, a power line to nowhere. It is a power line to several First Nations. One of those First Nations is the Tahltan First Nation, hon. Speaker — hon. Chair.

I’m sorry. I thought I was in the big House in question period for a moment there. I do apologize.

This past weekend I got a call from the president of the Tahltan Central Council, a young Tahltan man by the name of Chad Day, who I’m a big fan of. He’s in his 20s and providing leadership to his nation that is well beyond his years. He informed me that they had had their public consultations in the three communities — in Iskut and Dease Lake and Telegraph Creek — and also scattered, because the Tahltan people are all over the place in Canada. So all over place they’ve had consultations.

They had a vote as to whether or not they were going to support the agreement that the Tahltan Central Council had negotiated with Imperial Metals over the Red Chris mine, and 87 percent of the Tahltan people support the Red Chris mine.

It’s important when projects go over budget. It’s important that B.C. Hydro learns from it. It’s important that government learns from it. We need to make sure that we do things on time and on budget. I absolutely agree with the opposition and with this critic on that.

But when you stand back and you look at what this project means to the province of British Columbia and to the Tahltan people.... Red Chris is going to last for 100 years. They’re going to be mining copper and gold from that mine 40 years from now and 80 years from now. When Chad Day’s great-grandchildren are working age, they will have an opportunity to work at that mine. That

mine would not be in existence if it weren’t for the northwest transmission line.

[1705]

It’s also true that the Forrest Kerr project — 180 megawatts, I believe, give or take, of clean energy going into the grid from the Forrest Kerr project — would not have happened but for the northwest transmission line.

I think it’s important that the fact that the project was over budget, as the member has said.... We can argue about whether it was really over budget as much as he says it was, but it was over budget. I think the main point for the people of British Columbia, frankly, is what this project means to the province over the next 100 years.

**A. Dix:** It depends what lessons B.C. Hydro learns from the project. There was a significant overrun on the B.C. Place roof. It is true that we have some great professional sports teams that play in B.C. Place. It wasn’t spent for nothing, but the overrun cost massive amounts that could have been spent on something else, equally.

In this case, the government exempted itself from regulatory review and then went massively over budget. By the way, they’re not my numbers. I didn’t create \$395 million. That was the government. I didn’t spend \$716 million. That was this project.

The minister has gone massively over budget here, and it’s a problem. The problem is.... You see this in other projects, and we’ll be discussing other projects as we go along here. But when the government decides on key issues, on IT issues, to break up projects so that they fall under the \$20 million threshold....

B.C. Hydro, as a matter, seemingly, of policy.... When they exempt themselves from BCUC review and then massively go over budget and don’t tell people about it, even though a reasonable person would conclude that they didn’t have an epiphany in June, 2013, before the election, that’s a problem.

I think, really, the issue in this case is not economic development. As the minister will know, the Red Chris project is a very valuable project to the people of B.C., and we’re very positive about it. The issue is that they didn’t deliver, in this case, as they should have done. That’s, I think, unfortunately something that people in B.C. will pay for — for a very long time, as well, I suspect.

I wanted to move on to the next round, because the minister may feel that I’m being unfair in focusing on three transmission projects, all of which, sadly — in some cases, really sadly — had tower issues, all of which were late and had significant problems in terms of their budgets, at least in the case of two of the projects.

I wanted to move on to the area of IT capital. The minister will know that when the government announced its five-year plan for information technology capital.... I think they started it in 2008. They announced it in 2009. They were spending about \$40 million a year on IT capital. That amount of money was increased over the term

of the plan to \$80 million a year on average. At least, going forward, that was the intent. That's what the corporation stated in various documents — its RRA in '09-10, RRA 2011, RRA 2012-14 and now RRA 2015-16.

Does the minister feel that the people of B.C. have got value for money for what has been an enormous increase in IT capital — specifically with respect to statements made in the 2011-2012 RRA? Does the minister...? What was promised here was a reduction in — I just want to get the specific reference here — operating costs. The idea was that they would double capital costs and reduce operating costs by 30 percent. That was Hydro's testimony in those processes, or submission in those processes. Has that occurred?

[1710]

**Hon. B. Bennett:** I find that in estimates there are always two categories of questions that need to be answered. The first category is usually the context leading up to the question. Let me just say that the member is doing his job as critic, and I don't have any issue with that at all. But he has left the impression that B.C. Hydro's capital program is in bad shape and over budget in a general sort of way.

So let me tell the member and get this on record. Over the five years from fiscal 2010 to fiscal 2014, B.C. Hydro put 661 transmission and generation projects into service. Of those 661 projects, B.C. Hydro was under budget by 4.75 percent on a budget of \$3.33 billion. That's 4.75 percent under on a budget of \$3½ billion, which is the total of the project budgets at the start of full implementation and doesn't include project reserves. Even with the impact of the northwest transmission line that the member talked about a minute ago, the five-year rolling average for fiscal 2015 is expected to be around 2 to 3 percent under budget on \$3.9 billion, totally.

Overall, Hydro is under budget on its capital program. That's a pretty darn good record. It is not acceptable to have any project go over budget. I agree with the member. I think there are important lessons to be learned, by both Hydro and by government, from any situation where you do go over budget. The ratepayer can, I think, have some comfort from the fact that, overall, B.C. Hydro's capital budget is still within what was estimated. In fact, it's actually, with the northwest transmission line, 2 to 3 percent under budget.

Now, the member asked me a question about the IT budget and whether the expenditures related to IT had been successful in reducing operating costs. I'm just going to take a minute and get some advice on that.

The member, I think, once again will be very excited to learn that operating costs at B.C. Hydro have been reduced by \$391 million over a three-year period. He's probably heard me say that in speeches, if he's been at any of my speeches. I'm proud of the fact that, yes, we raised rates, but we also worked with B.C. Hydro and got their operating costs reduced. So \$391 million less, over three

years, than they were spending before.

We've also put Hydro on a fairly strict regime in terms of operating increases. Annually they are limited to one-half the rate of inflation. I don't know that there's another utility in Canada that has that kind of restriction on their operating budget, so I think Hydro deserves some credit for tightening the belt and trying to keep costs down.

In terms of capital costs, the member mentioned that capital costs have increased, and yes, they have. Capital costs right now are coming in around \$2.4 billion a year, and 50 percent of that is going to sustaining the assets — many of which are very, very old — 30 percent is going to Site C, and 20 percent is going to new growth. I hope that comes close to answering the member's question.

[1715]

**A. Dix:** Well, it's not in the same stadium as my question, which was about IT capital expenditures. I guess one is left, since none of that answer really dealt with that, only to ask the question again in hopes that maybe the minister will answer it this time.

In the years leading into the five-year IT plan, B.C. Hydro was spending \$40 million a year on IT. The idea of the plan, as stated in RRA hearings multiple times, was to double the spend on IT capital in order to reduce IT operating costs. That has not happened.

In fact, the most recent information, the 2015-16, based on that shows IT operating going up as IT capital doubled — a daily double from the minister. What I'm asking the minister is: given the fact that the commitments made by B.C. Hydro in rate review hearings with respect to the spend on IT capital have not yielded the results, is he satisfied with that level of performance?

**Hon. B. Bennett:** With the agreement of the member, I would offer this. Hydro would like to go back and review some of the historic documents that the member has referenced before we give the member an answer on this. They are not sure that the member is correct. I can tell you that IT expenditures are up in '15-16. The member is correct about that. We're not certain about some of the other things that the member has referenced. Obviously, he's read this in some materials, but Hydro would like to go back and have a look, and we'll put together a much better answer for the member for tomorrow.

**A. Dix:** I'll assist the minister with what I'm talking about. With respect to the past years, the \$40 million average, I'm referring to information found in the 2009 RRA, which shows 2007 actuals of \$40 million; in 2008 a forecast of \$37.9 million and actuals of \$42.3 million; in 2009 a forecast of \$46.8 million and 2009 actuals, which come in the 2011 RRA, of \$50.3 million.

Then we go up to \$77.6 million forecast in 2010. There's a little bit of a blank in the rate review process. Then we go to actuals of \$75.3 million, a forecast of \$80.5 million,

more minor matters involving stratas, which haven't had a particularly good option for resolution up till now with the civil resolution tribunal.

Noting the hour, I move that the committee rise, report progress and ask leave to sit again.

Motion approved.

The committee rose at 11:55 a.m.

The House resumed; Madame Speaker in the chair.

Committee of the Whole (Section B), having reported progress, was granted leave to sit again.

Committee of Supply (Section A), having reported progress, was granted leave to sit again.

Hon. T. Lake moved adjournment of the House.

Motion approved.

**Madame Speaker:** This House, at its rising, stands adjourned until 1:30 this afternoon.

The House adjourned at 11:56 a.m.

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## PROCEEDINGS IN THE DOUGLAS FIR ROOM

### Committee of Supply

#### ESTIMATES: MINISTRY OF ENERGY AND MINES (continued)

The House in Committee of Supply (Section A); G. Kylo in the chair.

The committee met at 11:13 a.m.

On Vote 20: ministry operations, \$25,524,000 (continued).

**A. Dix:** As I understand it, B.C. Hydro and the minister may be in a position to answer some basic questions about IT capital expenditures at B.C. Hydro today.

I wanted to start by asking about a project called plan, schedule, work. The IR 1.277 states that the total cost of the project is estimated at \$34 million. I won't take the minister through that. In its response, given that it exceeded the \$20 million threshold, B.C. Hydro said it would submit the project to BCUC for approval. It was, of course, never submitted — which I guess is another way, other than cabinet order, to avoid BCUC scrutiny.

What happened to it is not in the public domain, but after the cancellation of the oral hearings and the imposed rate increase by the government, the project was apparently split into smaller pieces. Has that project — plan, schedule, work — delivered anything of value for the \$34 million it cost?

[1115]

**Hon. B. Bennett:** I'll start off, for the member's benefit, since he's asking me about technology.... Then I'll deal with the specific question.

Generally, technology, I'm advised, has underspent its operating budget each year since 2010 by an average of about 3½ percent. The technology operating budget growth has been, on average, 1.4 percent or less. That's for the corporation. I know the member didn't ask specifically for that, but that's the context for this discussion about the specific project.

With respect to the specific project, the planned and scheduled work project was in train before the B.C. Transmission Corporation integration. The corporation re-scoped the project. It ended up that the total capital cost was actually \$8 million. There was a point where the capital cost was \$20 million, and I guess if you go back even further than that, it was estimated at plus \$30 million, although I don't have any details on that.

Ultimately, I think what the member is interested in is how much was spent and what the benefits were. The total capital cost of this program was \$8 million. In terms of the benefits, I can tell the member that the benefits included improvement to B.C. Hydro's work management processes, including planning, scheduling and work delivery related to maintenance, capital, trouble- and customer-driven work, plus interfaces from legacy systems to Sap — putting all the work orders in one system, providing one view of work.

Overall, it looks like the project was narrowed in scope considerably. It costs quite a bit less than the number that was being used by the member, and I've just read out what the benefits are.

It's not actually my number. The member said it was my number, hon. Chair. It's actually the number provided to me by the corporation on what was actually spent, so it would be real easy for the member opposite to check that out in Hydro's financial statements if he'd like to do that.

**A. Dix:** Well, the minister will know — we discussed this yesterday, and he knows this because, presumably, he and B.C. Hydro are responsible for their submissions to the rate application hearings — that in the period five years before the implementation of the five-year plan that Mr. Stuckert was responsible for — Mr. Stuckert, who, at the end of that plan, I gather, was dismissed in February — annual capital spending under the plan more than doubled from \$40 million a year to \$80 million a year.

The promise made in those hearings, and the minis-

of the plan to \$80 million a year on average. At least, going forward, that was the intent. That's what the corporation stated in various documents — its RRA in '09-10, RRA 2011, RRA 2012-14 and now RRA 2015-16.

Does the minister feel that the people of B.C. have got value for money for what has been an enormous increase in IT capital — specifically with respect to statements made in the 2011-2012 RRA? Does the minister...? What was promised here was a reduction in — I just want to get the specific reference here — operating costs. The idea was that they would double capital costs and reduce operating costs by 30 percent. That was Hydro's testimony in those processes, or submission in those processes. Has that occurred?

[1710]

**Hon. B. Bennett:** I find that in estimates there are always two categories of questions that need to be answered. The first category is usually the context leading up to the question. Let me just say that the member is doing his job as critic, and I don't have any issue with that at all. But he has left the impression that B.C. Hydro's capital program is in bad shape and over budget in a general sort of way.

So let me tell the member and get this on record. Over the five years from fiscal 2010 to fiscal 2014, B.C. Hydro put 661 transmission and generation projects into service. Of those 661 projects, B.C. Hydro was under budget by 4.75 percent on a budget of \$3.33 billion. That's 4.75 percent under on a budget of \$3½ billion, which is the total of the project budgets at the start of full implementation and doesn't include project reserves. Even with the impact of the northwest transmission line that the member talked about a minute ago, the five-year rolling average for fiscal 2015 is expected to be around 2 to 3 percent under budget on \$3.9 billion, totally.

Overall, Hydro is under budget on its capital program. That's a pretty darn good record. It is not acceptable to have any project go over budget. I agree with the member. I think there are important lessons to be learned, by both Hydro and by government, from any situation where you do go over budget. The ratepayer can, I think, have some comfort from the fact that, overall, B.C. Hydro's capital budget is still within what was estimated. In fact, it's actually, with the northwest transmission line, 2 to 3 percent under budget.

Now, the member asked me a question about the IT budget and whether the expenditures related to IT had been successful in reducing operating costs. I'm just going to take a minute and get some advice on that.

The member, I think, once again will be very excited to learn that operating costs at B.C. Hydro have been reduced by \$391 million over a three-year period. He's probably heard me say that in speeches, if he's been at any of my speeches. I'm proud of the fact that, yes, we raised rates, but we also worked with B.C. Hydro and got their operating costs reduced. So \$391 million less, over three

years, than they were spending before.

We've also put Hydro on a fairly strict regime in terms of operating increases. Annually they are limited to one-half the rate of inflation. I don't know that there's another utility in Canada that has that kind of restriction on their operating budget, so I think Hydro deserves some credit for tightening the belt and trying to keep costs down.

In terms of capital costs, the member mentioned that capital costs have increased, and yes, they have. Capital costs right now are coming in around \$2.4 billion a year, and 50 percent of that is going to sustaining the assets — many of which are very, very old — 30 percent is going to Site C, and 20 percent is going to new growth. I hope that comes close to answering the member's question.

[1715]

**A. Dix:** Well, it's not in the same stadium as my question, which was about IT capital expenditures. I guess one is left, since none of that answer really dealt with that, only to ask the question again in hopes that maybe the minister will answer it this time.

In the years leading into the five-year IT plan, B.C. Hydro was spending \$40 million a year on IT. The idea of the plan, as stated in RRA hearings multiple times, was to double the spend on IT capital in order to reduce IT operating costs. That has not happened.

In fact, the most recent information, the 2015-16, based on that shows IT operating going up as IT capital doubled — a daily double from the minister. What I'm asking the minister is: given the fact that the commitments made by B.C. Hydro in rate review hearings with respect to the spend on IT capital have not yielded the results, is he satisfied with that level of performance?

**Hon. B. Bennett:** With the agreement of the member, I would offer this. Hydro would like to go back and review some of the historic documents that the member has referenced before we give the member an answer on this. They are not sure that the member is correct. I can tell you that IT expenditures are up in '15-16. The member is correct about that. We're not certain about some of the other things that the member has referenced. Obviously, he's read this in some materials, but Hydro would like to go back and have a look, and we'll put together a much better answer for the member for tomorrow.

**A. Dix:** I'll assist the minister with what I'm talking about. With respect to the past years, the \$40 million average, I'm referring to information found in the 2009 RRA, which shows 2007 actuals of \$40 million; in 2008 a forecast of \$37.9 million and actuals of \$42.3 million; in 2009 a forecast of \$46.8 million and 2009 actuals, which come in the 2011 RRA, of \$50.3 million.

Then we go up to \$77.6 million forecast in 2010. There's a little bit of a blank in the rate review process. Then we go to actuals of \$75.3 million, a forecast of \$80.5 million,

more minor matters involving stratas, which haven't had a particularly good option for resolution up till now with the civil resolution tribunal.

Noting the hour, I move that the committee rise, report progress and ask leave to sit again.

Motion approved.

The committee rose at 11:55 a.m.

The House resumed; Madame Speaker in the chair.

Committee of the Whole (Section B), having reported progress, was granted leave to sit again.

Committee of Supply (Section A), having reported progress, was granted leave to sit again.

Hon. T. Lake moved adjournment of the House.

Motion approved.

**Madame Speaker:** This House, at its rising, stands adjourned until 1:30 this afternoon.

The House adjourned at 11:56 a.m.

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PROCEEDINGS IN THE  
DOUGLAS FIR ROOM

Committee of Supply

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ENERGY AND MINES  
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The promise made in those hearings, and the minis-

ter will know this.... Again, this is not mine, just like the \$34 million isn't my figure; it's B.C. Hydro's. This was the promise B.C. Hydro made, that as a percentage of total business group operations, there would be a reduction of costs of 30 percent. Instead, the opposite happened. You doubled the spend, and you became less efficient on the operating side — a rare achievement, I would suggest.

[1120]

That's what happened. That's what the numbers say. What the facts are is that the architect of this move has been let go by the company — not a sign of confidence by B.C. Hydro on what happened.

I'll ask a question, I guess, about the next project. It's the enterprise financials upgrade project, the supporting project. If you look and refer them to the response — if they want it, because it's their response — IR2 139.2 gives the final cost of the project and the costs for the supporting project. If you add all the capital and associated operating costs to complete the project — that's \$18.4 million plus \$2.7 million plus \$9.2 million plus \$100,000 plus \$7 million sustainment and licensing — the total cost is \$37.4 million.

The original cost of this project, as presented to the 2009 rate hearing, was \$7.2 million — \$7.2 million. The option B.C. Hydro followed — actually followed — was explicitly, under sworn testimony, rejected at those hearings by B.C. Hydro. When they went and proceeded to go ahead with the project they wanted to do anyway, it cost five times as much.

I'm asking the minister for some explanation of this approach, both to the BCUC and to IT.

**Hon. B. Bennett:** Obviously, the member is going to throw around his numbers. All I can do is to provide you with the actual numbers from B.C. Hydro. The total capital cost of this project was \$16 million. The original project estimate was \$7 million. So I think we agree on that piece.

The reason for the change was the change in scope to extend the existing SAP system rather than reimplement a newer version of obsolete PeopleSoft Financials — trade name, PeopleSoft Financials — and also to deal with the cost to integrate the key systems with SAP. There was a cost to that as well.

In terms of the benefits of this enterprise financials upgrade, first of all, it delivered a fully up-to-date enterprise-class financials system. B.C. Hydro's original PeopleSoft financials implementation, delivered between 1999 and 2002 with very similar scope, cost in excess of \$50 million; capability to support a variety of existing and emerging internal and external financial reporting requirements; and, finally, up-to-date platform enabled future financial requirements and ability to adapt to business changes — for example, relatively simple reintegration of BCTC into B.C. Hydro in 2010, and other corporate reorganizations as needed.

**A. Dix:** When B.C. Hydro presented this project to the BCUC.... Perhaps the minister can speak to why they decided to get rid of Mr. Stuckert. The fact is that this project was presented to the BCUC. Questions were asked about PeopleSoft financials, and here's what B.C. Hydro said.

They discussed the alternatives. Do nothing; they reject that. There's no cost to that. Replatform SAP — this is what they did. Replatform SAP, a project that was way over budget and which was broken up, this project, to keep under the \$20 million threshold to avoid BCUC scrutiny — which, in my view, is not appropriate behaviour by the corporation. It's a way to avoid BCUC scrutiny.

[1125]

Here's what they said. "Replatformed SAP. B.C. Hydro has investigated migrating financial systems from PeopleSoft to SAP. It's estimated...." This isn't me, Minister; it's B.C. Hydro. They wrote this:

"It's estimated that the cost to replatform SAP would be between \$30 million to \$40 million" — and indeed it was, in total — "and would require a significant dedication of management and staff resources, thereby delaying other B.C. Hydro projects. Migration would likely take between two and three years.

"While operational savings of \$0.4 million annually would be available for vendor maintenance with SAP, the cost of licensing would be approximately \$10 million. Overall, this option is not considered appropriate for B.C. Hydro."

And then they proceeded to do it.

The third option, which they accepted and told the BCUC what they were going to do, is the option that the minister referred to, which is upgrade PeopleSoft Financials.

So why did this change, and why was B.C. Hydro in this period systematically breaking up IT projects to avoid BCUC scrutiny?

**Hon. B. Bennett:** The member, I think, has accused B.C. Hydro of having deceived the BCUC over this project or this situation. That's not true. What happened was that the project that the member is talking about never got built as one project. The \$16 million was spent on what I said it was spent on, and the benefits are what I read out a minute ago for that piece.

B.C. Hydro did do the work in modules. They decided that it did not make sense, that there was too much risk, to do it all as one large project. They made that decision not so that they could deceive the BCUC, as the member has suggested, but because it made business sense to do it that way. That's the answer.

[1130]

**A. Dix:** Perhaps, then, the minister can explain, on the overhaul, why we've seen this dramatic increase in capital spending, also with a parallel increase in recent years in operating costs, on IT when BCUC was told the opposite would happen. Why was Mr. Stuckert dismissed?

**Hon. B. Bennett:** I guess two parts to the answer. I hope I capture what the member is looking for. The position and the individual referenced by the member were.... The individual was released. They wanted a different person in the job. I'm not going to get into publicly, you know, why that was the case. Hydro decided it wanted to change direction. It did so.

In terms of the member's supposition that there was a commitment made by Hydro that the investment in new IT infrastructure would lead to reduced operating costs, he's correct to say that it has not. It has not. Hydro advises me that they have not been able to locate the reference.... I think the member might have said yesterday 2009, so if the member would care to share that, it would be useful for Hydro to have that.

I am advised that investing in IT infrastructure like this does not typically reduce operating costs. That's not the only reason that you invest in IT. There are many other good reasons why any business would invest in IT the way that Hydro has. We're not disputing the fact that operating costs haven't gone down as capital costs have gone up — capital investment in IT — but we would certainly dispute the fact that there's something unusual about that, in the corporate context.

**A. Dix:** We're talking about a plan that increased IT capital by \$200 million over five years. That's real money, \$200 million, and surely the intent of that was to improve productivity, and what the minister is acknowledging is that it didn't improve productivity.

[1135]

It's an extraordinary thing. At the end of the five-year plan — which, for the price, was only partly installed, especially on the SAP side — they acknowledged that they increased costs and increased capital, which is a rare daily double in these areas.

I guess I'll ask the minister about another project, the project and portfolio management project, estimated at \$15 million in the 2011 RRA. The updated costs were \$22 million — of course, over the \$20 million threshold. Hydro presumably....

Maybe they didn't know that there would be a 40 per cent increase in costs, which is approximately the overrun on the northwest transmission line, just to show that one can overrun on the small projects as well. So \$15 million to \$22 million in a short period. They never went back to the BCUC for approval, even though it was over the threshold.

Am I correct to say that this project ended up 40 per cent more expensive, or \$7 million more than Hydro told the BCUC in the 2011 RRA?

**Hon. B. Bennett:** The pattern developed yesterday where I was kind of responding to contextual comments made by the member because they were incorrect. I'm going to carry on with that and then answer the question at the end of his dissertation.

The member asked a question about the comparison of the capital investment in IT, as compared to the operating costs of IT, and then talked about productivity. You invest in IT to improve productivity across the whole operation. Productivity has improved across the whole operation. In fact, unlike what the member is suggesting, productivity at B.C. Hydro has improved because of the investment in IT.

In terms of the next question that the member asked. I think he was asking about project and portfolio management. The member is correct to suggest that the original budget of \$15 million was not met. In fact, it ended up costing \$21 million. Of course, there's a reason for that. The reason for that is that in the middle of implementation of the project and portfolio management program, BCTC had to be integrated back into B.C. Hydro. I'm sure the member will be pleased to hear that that's the reason.

Because of the scope requirements in bringing BCTC back in, with BCTC's vast capital program, there was obviously a reason to change the scope for this IT program. That's what took it from \$15 million to \$21 million.

[1140]

But it's important to note that for those extra dollars, the ratepayer did get value from the investment in this project and portfolio management program, and the program continues to support productivity increases at B.C. Hydro today.

**A. Dix:** They spent \$200 million more, \$400 million in total on a five-year plan, and they can't point to really anything specifically of value. That's a massive and interesting failure — except that they decided that the guy who designed the plan wasn't the guy to carry it forward.

We don't have very much time, so I'll ask the minister specifically about the customer portal project. The customer portal project was estimated to cost \$6.2 million. I know these are B.C. Hydro documents, and the minister thinks this is unfair. It was estimated to cost \$6.2 million in appendix I and J of the RRA 2012-2014, just to be specific — not to take those numbers too seriously.

How much did the customer portal project cost?

**Hon. B. Bennett:** We may have gotten our wires crossed in terms of the name of the program that we thought the member was asking about. We've got information on something called the integrated web portal, and it sounds like the member wants to ask about the customer portal.

Unfortunately, I don't have information on the customer portal. I've got information on the integrated web portal. But we'll get it for the member.

**A. Dix:** That would be very helpful. I mean, it's only a.... It was a \$6 million project. My understanding is that the customer portal project ended up closer to \$20 million, which is, if you're talking about overruns, doing better than the northwest transmission project as a percentage.

Since the minister brought the answer on the integrated web portal, I guess we can have him give that answer.

**Hon. B. Bennett:** Integrated web portal. Total capital costs were \$6 million. The project ran from October 2010 to September 2012. It was in service in fiscal 2013. There was a change in capital costs from \$5 million to \$6 million due to design changes and higher-than-planned infrastructure costs.

The benefits from that program. There are five different benefits.

(1) Externally facing secure collaboration solution to enable employees and contractors to collaborate with external vendors, suppliers and communities.

(2) B.C. Hydro was able to bring multiple externally hosted sites in-house — an example: engineering-based SharePoint site; Site C; board of directors; energy managers — improving security and privacy.

(3) Enabled employees, stakeholders and other external parties to be more collaborative around their diverse content knowledge processes and interests in a social, flexible and productive work environment.

(4) Consolidated web publishing and collaboration tools on the same platform and enabled an integrated search centre to improve the search capabilities.

[1145]

The fifth and final benefit from this program: total page views to bchydro.com have grown from 58 million in 2013 when the portal went into service to 72 million in 2014.

So from 58 million to 72 million page views. And they're on track to hit 88 million in 2015, so it seems to be working.

**A. Dix:** Well, there's nothing like an outrageous rate increase to increase page views, I guess. The minister is saying that that project was only 20 percent over budget, so I guess it seems like the best project so far.

The minister knows that the significant part of the five-year plan, this \$400 million in capital spending, was the transition to SAP. In the plan does the minister know or does his staff know what the total cost of all of the projects to transform to SAP was?

**Hon. B. Bennett:** I'll undertake to get the member the numbers associated with the three modules that I mentioned earlier and, of course, the total. I don't have it here.

**A. Dix:** Is the transition completed? Are there other projects still to be undertaken?

**Hon. B. Bennett:** No, the conversion is not done yet. There are three new modules to come. A supply chain is one. Work management is another, and asset management is the third. What has been done is HR, finance and project management. Those are the categories or the modules that we'll get the numbers on for the member.

**A. Dix:** The minister will know that in the five-year plan the project was supposed to be completed. That's, as they say, another project behind schedule. If that's what's approaching a theme here....

We have projects, some of which should have gone to the BCUC with business cases and didn't go to the BCUC for business cases; projects systematically over budget; projects that didn't achieve their goals; and projects, at a time when B.C. Hydro ratepayers are being asked to pay a massive rate increase, that cost an enormous amount of money — \$400 million, the cost of the plan, twice what had been spent in the previous five years — and didn't achieve any reductions in costs on IT operating. An extraordinary achievement, I think.

In fact, IT operating is going up more as a share of the business costs at B.C. Hydro. Unbelievably, after spending \$400 million, it's going up faster than the rest of the business group operations. Is that not surprising to you, hon. Chair? I think it's surprising to you.

But, you know, I'm reading what you're thinking, hon. Chair, and what you're thinking is that the member should now rise and report progress and ask leave to sit again.

Motion approved.

The committee rose at 11:50 a.m.

driving costs down, it's driving costs up.

So again, my question to the Premier is.... Let's try and focus on the facts, and the facts of the matter are that B.C. Hydro is a disaster. What plan is there to fix that?

**Hon. C. Clark:** I know that the Minister of Energy has spoken quite a bit in response to these questions and has offered all the answers that the member is seeking. B.C. Hydro is undertaking one of the largest expansions that they have undertaken in 30 years so that we can look after our kids.

I mean, the other part of this equation, when the member talks about working people.... Empty promises, empty talk, at a time.... From a man who was a part of so seriously damaging our economy throughout the 1990s.... Last in employment growth, 50,000 people who fled our province to try and find jobs, eight consecutive unbalanced budgets and credit downgrades — that's what that member stands for.

On this side of the House we stand for working people, including the working people over at B.C. Hydro that he complains about. Many of the people that are earning over \$150,000 a year, which he complains about, are the men and women who go out at night, on weekends and in overtime and put their lives at risk to make sure that British Columbians continue to have power.

Yes, those are costs that we incur, but I think most British Columbians would say it's worth the investment in those working men and people who do that on our behalf and who do it so incredibly well.

**Madame Speaker:** Recognizing the Leader of the Official Opposition on a supplemental.

**J. Horgan:** I do have a supplemental, and I'll try again to bring the Premier back to the reality that families are feeling today. They're struggling. The 28 percent rate increase is not my rate increase. It's not the member for Burnaby-Deer Lake's rate increase. It's the Premier of British Columbia's rate increase.

[1415]

Now, I appreciate that the Premier likes to take historical walks down memory lane, but I think we learned something very valuable last night about fearmongering, and that is that it doesn't work. So rather than getting an undergraduate course from the Premier on what happened in British Columbia a thousand years ago, why don't we get from the Premier an answer to what she's doing to working people in British Columbia today?

And what is that? Hydro rate increases. I live on Vancouver Island. I've got to pay a little bit more to get off it now, and some of the people that come here by boat might be doing that on the other side as well. Camping fees, ICBC rates, MSP premiums. Everything that the government touches comes out of the pockets of working people.

Will the Premier stand today and say that B.C. Hydro is out of control, that we need to fix it and that that should be the highest priority, not pretending it isn't broken?

**Hon. C. Clark:** If the government that we complain about, the last NDP government, was a thousand years ago, I've got to give this guy credit. He doesn't look like 1,054 years old, because he worked for them back then. When we talk about 1990, it's not that long ago.

What we should be talking about when we talk about how British Columbians are doing.... Were British Columbians doing well in the 1990s during all those years of deficit? Were they doing well when British Columbia had the worst unemployment rate in western Canada every single year in a row? Was that good for working people?

Interjections.

**Madame Speaker:** Members.

**Hon. C. Clark:** Was it good for working people when the NDP opposed the B.C. early childhood tax credit? Ask the 180,000 families that will benefit from that. Ask the tens of thousands of children who will get the \$1,200 in the education savings grant — again, something that he campaigned against. Ask the tens of thousands of people who will soon be riding the Evergreen line to work and to home every single day. Ask the thousands of trade students who will be eligible...

Interjections.

**Madame Speaker:** Members.

**Hon. C. Clark:** ...for up to \$16,000 through the B.C. access grant. Ask the 1,300 British Columbians who are working in the five new mines that have opened since 2011. Ask them if they are better off. Ask them if they are better off with the policies of a B.C. Liberal government that stands for jobs and opportunity. I think they will give you a resounding yes.

**A. Dix:** Let's just review what the Premier is actually bragging about today. A five-year information and technology plan that's half finished and that's in its seventh year. It's in its seventh year. Their \$400 million plan...

Interjections.

**Madame Speaker:** Members.

**A. Dix:** ...has cost \$492.5 million. They're failing to meet targets.

B.C. Hydro justified doubling their IT spend and increasing rates to double their IT spend on capital by

arguing that the \$400 million expenditure would reduce operating costs by 30 percent — \$400 million to save \$30 million a year. It sounds a little like Social Credit, but that's what they promised.

What happened? We're now in year 7. The plan is incomplete.

Interjection.

**A. Dix:** I know the Minister of Health is an expert on bungled IT schemes.

We're now in year 7 of the plan. The plan is incomplete.

Interjections.

**Madame Speaker:** Members.

**A. Dix:** And the operating savings? Did they save 30 percent? No. Did they save 25 percent? No. Did they save 10 percent? No. Operating costs went up.

How can the minister justify this irresponsible and unsuccessful spending?

[1420]

**Hon. C. Clark:** Just so that there's no doubt, I do want to be clear about what I was bragging about.

Near record employment in British Columbia — 2.3 million British Columbians working. An exclusive club with a third balanced budget, a third consecutive balanced budget. An unemployment rate at 5.8 percent, which is the largest decrease in Canada since we introduced our jobs plan in 2011. Lowest personal income taxes in Canada up to \$121,000, which puts a lot of money in people's pockets.

And so, in addition to the 21,000 units of social housing that have been created, in addition to the 74,000 British Columbians who are now working who weren't before, in addition to the B.C. education savings plan, the middle-income families who are paying less — more than \$2,000 a year less than they were under the NDP... Those are achievements, and if the member wants to know, that's what I'm bragging about.

**Madame Speaker:** Vancouver-Kingsway on a supplemental.

**A. Dix:** This is how, I guess, you get 28 percent hydro rate increases. This is how you get transmission line costs out of control and the public misled before an election. This is how you get an information technology plan that doesn't meet any of its targets, that's over budget, that's in its seventh year with no end in sight. This is how you get it. All the Premier seems to do is sit in her own office and read her own campaign literature.

A few weeks ago the Minister of Energy and B.C. Hydro weren't able to provide coherent answers to any

questions on this overrun, any questions on these late programs, any questions on this unsuccessful program. How can he explain? Oh, but someone at B.C. Hydro noticed in February that the person responsible for the plan was dismissed by B.C. Hydro.

So my question to the minister is simple. It's simple. How can he justify...?

Interjections.

**A. Dix:** Oh, again. You know, there are so many experts on failed IT schemes on that side of the House, and they're all speaking now.

How can the minister possibly justify a scheme that is in its seventh year, that is over budget, that is failing to miss its targets and where the author of the scheme has been fired? How can the minister justify this scheme which has cost hydro ratepayers so much money?

**Hon. C. Clark:** Well, first of all, I reject this notion that I am reading campaign literature. What I am reading are the accomplishments of the government that are based on the promises that we made during the election, promises that we have kept and accomplishments that we have delivered for the people of British Columbia.

Why are people moving from across the country and around the world to British Columbia? It's because in British Columbia we have the lowest overall tax burdens in Canada. When you look at income taxes, property taxes, health care premiums and payroll taxes, British Columbians get to keep more of their money than just about anybody else in Canada. That is in direct contrast to when that party was in power in 1990 and people had the biggest hit from government of anyone in Canada. Their wallets got smaller faster in British Columbia than any other province. The most beautiful place in the world to live and people had to leave.

[1425]

Well, not under this government. We're looking out for working people. We want to keep British Columbia affordable. And we want to create jobs in every corner of the province.

#### INTERIOR HEALTH AUTHORITY AND SENIORS CARE CASE

**M. Karagianis:** Let's look at another record under 14 years of B.C. Liberal government. Under this government seniors care has deteriorated, and despite a major investigation by the Ombudsperson, delivered in 2012, problems persist, causing seniors and their loved ones, like Nancy and David Varcoe, unbelievable hardship.

According to a subsequent report from the Ombudsperson issued in April of 2015, Interior Health detained Ms. Varcoe for more than two years without her consent. She was torn away from her husband,

**Hon. N. Letnick:** Madame Speaker, thank you for the opportunity to answer the question.

We've seen an increase in agriculture performance, in terms of GDP impact, over the last few years. We've seen it go up by 3.5 percent per year. That's in comparison to 1.9 percent per year for the general economy.

We've seen 60,000 people directly employed in agriculture — 20,000 farm families, which hasn't changed very much over the last few years. We continue to see new entrants coming into agriculture. Indeed, when you go around the province, as I have and many of the members have, you see an agriculture industry that's booming.

We see areas of tree fruits that are moving forward with the replant program — \$8.2 million over seven years. We see the highest meat prices that we've seen in many generations. So we'll continue to support agriculture throughout British Columbia. We'll continue to look at these regulations.

On the question, specifically, it's not a matter of who owns the land; it's how the land is used. We're working right now to make sure that we work with the ALC so they can come to a conclusion on that particular aspect.

#### B.C. HYDRO MANAGEMENT AND INFORMATION TECHNOLOGY PLAN

**A. Dix:** For three weeks the government has been unable to answer basic questions about B.C. Hydro's five-year technology and telecommunications plan — a scheme that is years late, over budget, half-finished and missing all of its performance targets.

It's late. We're in year 7 of a five-year-plan. I think that's late.

Over budget. They've spent \$492 million even though they budgeted \$400 million.

Half-finished. They've managed to complete three of the six key components, missing all the targets they promised to reduce. If you gave them half a billion dollars to spend, they could reduce operating spending by 30 percent. Operating spending has gone up as well. A Liberal daily double.

Why is the plan late, half-finished, over budget and not achieving its targets?

[1415]

**Hon. B. Bennett:** It's no surprise that my critic with B.C. Hydro would want to focus on things where he thinks there's a political opportunity. What I can say to the member is that the IT program within B.C. Hydro did have problems. There's no question about that, and I acknowledged that when the critic questioned me during estimates. There's no reason for me to say otherwise.

What I can also say, though, is that those problems were recognized in the 2011 review that was done by the deputy ministers committee. Systems were put in place to resolve those difficulties. And in fact, when the new

CEO was hired, one of the things that she did after the first six months that she was there... And she has not been there even one calendar year yet.

What she did was she actually replaced the CIO with B.C. Hydro because there had been some serious issues in 2000 and 2010. Hydro is on top of it at this point in time. I have faith in the CEO to resolve the issues around IT and make sure that ratepayers are being treated respectfully.

**Madame Speaker:** Vancouver-Kingsway on a supplemental.

**A. Dix:** Well, I have in front of me the "B.C. Hydro Information Technology and Telecommunications Five-Year Plan," the one they originally did and the update. I just want to take the minister through it.

On page 8, he'll recall in estimates, the five-year target to reduce operating costs by 30 percent. It's two-thirds of the way down the page on page 8. You know, the one they said didn't exist? Well, they completely missed it. On page 31 there's a \$400 million budget. They've spent \$492 million of it, and they're only half finished. There's the commitment to finish the system in 2014. I guess they got in charge of this in 2011, according to the minister. That's on page 26 and numerous other pages.

They've finished half of it. They're half finished, and they've spent all of the money. That's the checklist here. Rate, check. Over budget, check. Wasteful, check. Unfinished, check. Completely unsuccessful, check. And ratepayers have to pay for it, checkmate, to the tune of massive and ongoing rate increases.

Can the minister explain when that system, when that five-year plan, now in year 7, will finally be finished?

**Hon. B. Bennett:** Well, here's what I can tell the member of the opposition. In 2010 there was a recognition that there were issues at B.C. Hydro around IT. Frankly, there was a recognition by government that there were other issues that needed to be looked at. In 2011 there was a deputy ministers committee that was struck by the previous Minister of Energy and Mines. That deputy ministers committee went in and worked...

Interjections.

**Madame Speaker:** Members.

**Hon. B. Bennett:** ...with B.C. Hydro. The result of that was, first of all, that they found almost \$400 million in operating costs that no longer exist. So they saved almost \$400 million over three years in operating costs.

B.C. Hydro was put under a commitment that their operating costs would not rise any more than one-half of the rate of inflation, and they've been successful since 2011 in doing that. There aren't that many corporations, either public or private, that would be able to do

GAY-STRAIGHT ALLIANCE  
GROUPS IN SCHOOLS

**S. Chandra Herbert:** We all know gay-straight alliances save lives. In Alberta their government has declared that students in any school that asks for one will get one. They will make sure it happens.

Ontario has said the same. Saskatchewan has said that if there's a school that won't provide one, they'll look to cut their funding. Yet here in B.C., this Liberal government refuses. They say they will not lift one finger to ensure that kids get access to these life-saving clubs. My question to the Premier: why?

**Hon. P. Fassbender:** I thank the member for the question.

British Columbia has led the country. The Premier has been recognized by other first ministers across this country for leading the country, for our ERASE Bullying strategy — investment in ensuring that schools and communities have the tools they need to ensure that no student, no person is bullied for any reason.

It has been successful. We've seen great work being done in schools. We stand on the record that says very clearly that no person in this province should be discriminated against or bullied for any reason.

**Madame Speaker:** The member for Vancouver—West End on a supplemental.

**S. Chandra Herbert:** This government stands on a record of failing, absolutely failing lesbian, gay, bi and trans students. The minister knows it. All of this side knows it. You're failing them. Gay-straight alliances cut suicide risk in half. Yet this government.... When these students ask for help in their most vulnerable times, the Premier and the minister refuse to do anything. They will not ensure that kids get these clubs that are life-savers, that make sure they're not at such high risk of suicide. It's shameful.

Alberta acted. They're a Conservative government. Ontario acted. They're a Liberal government. New Democrats are calling for action in Saskatchewan. Their Conservative-affiliated government is looking to cut the funding. Yet here in B.C., which is, I suppose, a leader in failing our students, this government says nothing, does nothing, turns their back on these students crying out for help.

How can the minister stand and claim to be a leader when he so clearly knows that his government is a failure?

**Hon. P. Fassbender:** The heart of the ERASE strategy is very clear. That is, that we support the diversity of all students in the province of British Columbia.

Interjections.

**Madame Speaker:** Members, Members.

Interjection.

**Madame Speaker:** Powell River—Sunshine Coast.

**Hon. P. Fassbender:** We support the boards of education across this province and independent schools that have implemented LGBTQ clubs as part of their local initiatives in the schools, with the students at the heart of it who know who their friends are and work with them to ensure that they are not bullied or discriminated against.

In addition, because we have safe school coordinators in every single district in this province, they're not only working with the students, they're working with community so that the school communities are safe and inclusive communities.

B.C. HYDRO MANAGEMENT AND  
INFORMATION TECHNOLOGY PLAN

**A. Dix:** The B.C. Hydro information technology five-year plan is now in its seventh year. It's half-finished, according to the minister, over budget and missing all of its performance targets on \$492 million of spending.

The minister was forced to apologize to ratepayers yesterday for this massive failure. Before the plan was put into place, somebody told the Utilities Commission that transitioning to an SAP platform on a key element of the project would cost five times as much, not save operating money, cause delays and would "not be considered appropriate for B.C. Hydro."

[1055]

You know who that somebody was? Why, it was B.C. Hydro itself in sworn evidence to the Utilities Commission. B.C. Hydro told B.C. Hydro not to do it, and B.C. Hydro did it anyway at a huge cost to taxpayers. That's Liberal energy policies at work.

Can the minister explain why B.C. Hydro didn't follow its own advice in this debacle? Can he finally tell this House, after three weeks of questions, when B.C. Hydro, now in its seventh year of a five-year plan, will finally be finished the work?

**Hon. B. Bennett:** In 2009 — that is the date when the document was created that the member has referenced — B.C. Hydro had a piece of software that they used that was not supported any longer by the vendor. That is my advice. In fact, the note that he referenced in his question actually states that the software that was being used by B.C. Hydro was not supported by the vendor. It was out of date, and it needed to be replaced.

If the member would take the time to look at exactly the same document the following year....

Interjections.

**Madame Speaker:** Members.

**Hon. B. Bennett:** If the member would take the time to go to the next year's filings for the rate review, he would find, in fact, this is what it says, "The scope and timing of the enterprise financials upgrade project has changed relative to the project described in the fiscal '09-10 rate review application," the document that the member has referenced.

The member can look this up, or I can provide a copy to him. "Specifically, the scope was expanded to include a comprehensive rework of the financial data model to align BCUC regulatory views, and the project timing was adjusted to align with the expected IFRS implementation date."

**Madame Speaker:** Vancouver-Kingsway on a supplemental.

**A. Dix:** I don't know who the minister is disagreeing with — the B.C. Hydro that told him not to waste the money or the B.C. Hydro that did waste the money.

Three weeks ago the minister, surrounded by the five most senior B.C. Hydro officials, couldn't even answer basic questions about this plan. They said they'd get the answers but are seemingly unable to do so, in multiple questions in this House and elsewhere.

Watching this, I think ratepayers have to ask themselves how on top of things B.C. Hydro is today. They told the BCUC one thing, and then they did another. Ratepayers are paying a massive price for this failure — so massive that even this minister had to apologize to them yesterday.

Is he able to tell us today whether this five-year plan, in its seventh year, will ever end? Does he know? Did the president of B.C. Hydro tell him yesterday when he summoned her to meet? Did she tell him when the plan would be finished and how much this scheme will finally cost when all is said and done?

**Hon. B. Bennett:** Well, I don't mind admitting, actually, when I don't know something or if I'm wrong. I admitted to the member in estimates that in fact B.C. Hydro had not measured up in its IT program in 2009 and 2010. I think it's appropriate for me, as the Energy Minister, to say that I apologize to ratepayers. I think that's the appropriate thing for an Energy Minister to do.

The member might want to consider actually admitting that he's wrong, because he is wrong about what he is saying in the House this morning. He is wrong. What B.C. Hydro....

Interjections.

**Madame Speaker:** Members. These members will come to order.

**Hon. B. Bennett:** He is wrong. I don't know what's so hard — for this particular member to acknowledge that he's made a mistake. He seems to have great difficulty doing that.

[1100]

B.C. Hydro has explained in the document that was filed under the rate review application in the following year. He can look it up. It's right there. They explain why they went to the different IT system. In fact, if you look at fiscal 2011, '12, '13, '14 and '15, they are under budget.

[End of question period.]

### Tabling Documents

**Madame Speaker:** Hon. Members, I am tabling a report of the Representative for Children and Youth, *Paige's Story: Abuse, Indifference and a Young Life Discarded*.

**Hon. M. Polak:** I seek leave to make an introduction.

Leave granted.

### Introductions by Members

**Hon. M. Polak:** I just would like to offer a welcome to 29 students from St. Catherine's Elementary in my riding. They're joined by their teacher, Maria Canil, and their principal, Jeff Brophy. Would the House please make them very welcome.

### Petitions

**V. Huntington:** It gives me enormous pleasure today to introduce the first of a series of petitions, this with 10,000 signatures, asking that the Fraser Health and government of British Columbia immediately restore 24-hour surgical services at Delta Hospital.

**Hon. T. Wat:** I ask leave to table a report.

**Madame Speaker:** Please proceed.

### Tabling Documents

**Hon. T. Wat:** I have the honour of tabling the *2013-14 Report on Multiculturalism*.

### Petitions

**M. Dalton:** I rise to table a petition signed by more than 1,300 residents. The petitioners seek to protect the residential well water supply in Whonnock, which is a part of Maple Ridge. They ask that a water use permit be denied to any commercial greenhouse operation that relies on limited water supply needed for residential use.

It's not just this project; other projects go over budget. We know, for example, that back east, the Muskrat project.... That project, of course, went through financial reviews, as they do with these sizes of projects in most jurisdictions — and this is with a contractor currently on the short list for B.C. Hydro — and is going massively over budget. But in that case, at least they had a project that went through a financial review and had an oversight committee — something they don't have in this case — to deal with it.

Compare that and this. A 1,100 megawatt Site C project at an estimated cost of \$8.9 billion has undergone no public financial reviews. I repeat: no public financial reviews. It's not subject to any oversight committee, and the province of B.C. is guaranteeing the debt for 70 years. That's what they're doing — 70 years — this government of contractual obligations of tens of billions of dollars of B.C. Hydro, and they're doing it one more time.

The only transmission — and this is different than Muskrat — included in the Site C budget is the link to B.C. Hydro's Peace Canyon project, which is about 90 kilometres away. How you get it from there to market is anyone's guess and not included, in any event, in the cost.

B.C. taxpayers, because of this minister and this process, won't know of cost overruns until the project is completed. The responsible individuals will be long gone, maybe back in Ontario telling stories of the good old days in the Kootenays.

In any event, all we can say about this situation is that the government has proven itself at B.C. Hydro again and again not to be credible on the issue of costs. Yet here we are, a motion saying: "Trust us. We failed you every time before, but trust us now."

The second question, I guess, is: do we need the power? Do we need this amount of power in this way now? Again, what we have is a government that has failed and continues to fail to be straightforward with British Columbians.

The last public forecast, the one referred to in the minister's speech, was from 2012. It was the basis of the 2013 IRP. That is the last forecast. It used to be the case that they would come out with such forecasts every year, but in the lead-up to the Site C decision, suddenly that disappeared — even though people at B.C. Hydro tell me, and surely they tell the minister, that in fact those forecasts are in serious jeopardy.

This year — I'm just, again, unfairly reading from government materials and B.C. Hydro's materials — there is an actual reduction of 1,320 gwh in the domestic tariff sales. That's about a quarter of Site C. That's how much it was reduced this year under this government. Over the last ten years, industrial demand has actually dropped significantly in British Columbia. Heavens, if we hadn't had such a pro-business government....

In fact, they have been consistently wrong, consistently overestimating demand. Now they overestimate demand

and are trying to put forward this project. So the question is, I guess: do we need the power?

The answer is: B.C. Hydro won't give us the information, but just about everybody from consumer groups to seniors groups to the business community says that they don't. They are afraid that what will happen here is exactly what happened the last time they exempted themselves from the BCUC — that they'll be caught holding the bill for a huge mistake by the B.C. Liberal government. Again, if the government has confidence in its numbers, which they're currently hiding from the public, why don't they take them to the BCUC and show them? They don't.

[1535]

It's an interesting question, and even in B.C. Hydro's own model — imagine, its own model — they couldn't, I guess, wash through the document dramatically enough. What it shows is....

It's in the integrated resource plan. It may or not have been yellowed out. Since it's bad news, it probably wasn't yellowed in the briefing note, but it showed — that note, chapter 6, bills with Site C — that B.C. Hydro would save about \$250 million if the service date for Site C was deferred from 2024 to 2026. That's not me saying it; that's B.C. Hydro saying it.

That's \$250 million. Imagine what the people of B.C. could do with \$250 million. And this is after the model was cooked to favour Site C. The question, I guess.... I will happily share that information with the minister — who, I know, will be listening carefully in any event — in *Hansard*.

We go on to this question of needing the power and what's the best option. I asked the minister when he was speaking about Burrard Thermal. The government rejected the BCUC's advice. It rejected common sense that this is a backup for our system.

What we need is capacity. That's what B.C. Hydro says: we will need capacity by 2020. What they did was got rid of that capacity. Also, the minister shelved the Revelstoke 6 project at the same time.

Interjection.

**A. Dix:** The minister says it's not true. I guess the minister thinks that deferring a project till 2033 isn't shelving it. In any event, he shelved Revelstoke 6. What does Revelstoke 6 bring? It brings about half the capacity, which is what B.C. Hydro says it needs, as the Site C project.

According to B.C. Hydro.... You know, I got this off their website again today. Indeed, it's unfair to read their website. I'm glad I can at this point. The minister will recall, having discussed his IT plan with us in the House, that the minister and the government went 900 percent over budget on a website upgrade, and I don't think that worked very well. I was able to access the website today. Only 900 percent. I think if we were to apply a Liberal bell curve to that, that might not be bad.