



LETTER NO. L-1-04

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VIA E-MAIL / FACSIMILE

January 7, 2004

TO: Mr. Richard Stout
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Registered Intervenors
(BCH04RR-RI)

Re: British Columbia Hydro and Power Authority
Project No. 3698360 – Order No. G-84-03
2004/05 and 2005/06 Revenue Requirements Application

By Application dated December 15, 2003 ("BC Hydro Application"), BC Hydro requests approval for rates to be effective April 1, 2004 and April 1, 2005. By Order No. G-84-03 dated December 16, 2003, the Commission established a Pre-hearing Conference and Workshop to be held on January 14, 2004 and January 15, 2004, respectively, both to commence at 9:00 a.m. at the Crowne Plaza Hotel Georgia, 801 West Georgia Street, Vancouver, B.C.

By Application dated December 15, 2003 ("BCTC Application"), the British Columbia Transmission Corporation requests approval for certain deferral accounts, listed on page one of the BCTC Application "to come into effect April 1, 2005 or such other date as BCTC's Transmission Tariff replacing BC Hydro's current Wholesale Transmission Service ("WTS") tariff becomes effective." BCTC further seeks approval for a System Control Modernization Study Deferral Account to become effective immediately. The Commission has determined that the BCTC Application for the deferral accounts proposed to come into effect April 1, 2005 be heard at the same time as BC Hydro's Application and that there will be one record for both Applications.

Prior to the Pre-hearing Conference, the Commission will issue an Order related to the Definition Phase of the System Control Modernization Study Deferral Account and the Definition Phase costs pertaining to the Study. BCTC is requested to indicate, at the Pre-hearing Conference, its expected filing date for a Project Certificate of Public Convenience and Necessity ("CPCN") and its position with respect to whether or not the Project CPCN should be heard at the same time as the BC Hydro Application.

The Pre-hearing Conference will be held before the Commission Panel and BC Hydro will conduct the Workshop. Following the Pre-hearing Conference, the Commission Panel will issue an Order establishing the regulatory agenda for review of the Applications. Therefore, the principal purpose of the Pre-hearing Conference is to hear submissions from BC Hydro, BCTC, and the Intervenors that may assist the Commission Panel in determining an appropriate regulatory agenda. BC Hydro has provided a "Proposed Schedule" as an attachment to the cover letter to the BC Hydro Application. The Commission Panel does not intend to restrict the consideration of a regulatory agenda to the "Proposed Schedule"; however, it may be efficient for participants to present their views of a regulatory agenda in the context of the "Proposed Schedule."

Issues arising from either of the Applications that may be relevant to the determination of the regulatory agenda may be identified by the participants at the Pre-hearing Conference. Participants should be aware, however, that a Hearing Issues List will be circulated by the Commission after the time for responses to information requests and sometime before the commencement of the hearing. The identification of issues may also be relevant to a determination of whether or not a negotiated settlement process may be appropriately included in the regulatory agenda.

Further to the Commission letter dated December 16, 2003, the Commission Panel has decided not to attend the initial Workshop on the Application on Thursday, January 15, 2004.

Yours truly,

Original signed by:

Robert J. Pellatt

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Enclosure

1 IN THE MATTER OF the
2 Utilities Commission Act
3

4 AND IN THE MATTER OF an
5 Application by British Columbia
6 Transmission Corporation for
7 Approval of an Application for
8 Deferral Accounts
9

10 TO: British Columbia Utilities Commission
11 600-900 Howe Street
12 P.O. Box 250
13 Vancouver, BC, V6Z 2N3
14

15 **British Columbia Transmission Corporation – Application for Deferral Accounts**

16 British Columbia Transmission Corporation (BCTC) applies to the British Columbia Utilities
17 Commission (the Commission) under section 60 of the *Utilities Commission Act* and section 6 of
18 Special Direction No. 9 (Order in Council No. 1107 dated November 27, 2003) for an order
19 establishing:

- 20 1. a Utilization and Credit Risk Deferral Account;
21 2. an Emergency Maintenance Expenditure Deferral Account;
22 3. a Cost of Market Deferral Account; and
23 4. a Regulatory Expenditures Deferral Account.

24 These accounts would come into effect on April 1, 2005 or such other date as BCTC's
25 Transmission Tariff replacing BC Hydro's current Wholesale Transmission Service (WTS) tariff
26 becomes effective.

27 BCTC is also seeking a System Control Modernization Study Deferral Account to become
28 effective immediately.

29 **Introduction**

30 BCTC is a provincial Crown Corporation created in response to provincial government policy
31 entitled *Energy for Our Future: A Plan for BC* (the Energy Plan). BCTC was established to
32 provide open and non-discriminatory access to BC Hydro's transmission system. Under the

1 *Transmission Corporation Act*, and a number of agreements between BC Hydro and BCTC,
2 BCTC has the responsibility to plan, operate and manage BC Hydro's transmission system.

3 There is a transitional period before BCTC assumes full responsibility for providing transmission
4 services. Under the *Transmission Corporation Act*, from August 1, 2003 to March 31, 2005 (or
5 such other date as BCTC's Transmission Tariff becomes effective), BC Hydro will remain the
6 regulated utility in respect of transmission service and BCTC will administer BC Hydro's
7 existing WTS tariff on BC Hydro's behalf. BC Hydro will fund BCTC's activities during this
8 period.

9 Beginning on April 1, 2005, BCTC will have full authority and responsibility for providing
10 transmission services under its own Transmission Tariff to be approved by the Commission.
11 After that date, BCTC will be directly responsible for certain transmission-related costs. BCTC
12 will need to establish and have approved its own revenue requirement and rates to collect these
13 amounts. BCTC will also be exposed to variances in revenues and costs from forecast. These
14 variances expose BCTC to significant financial risks relative to its current capital structure.

15 To mitigate these risks, BCTC is authorized under section 6(a) of Special Direction No. 9 to
16 establish certain deferral accounts through the Commission. The Commission may also allow
17 BCTC to establish other deferral accounts under section 6(b) of Special Direction No. 9.

18 The remainder of this Application discusses BCTC's current capital structure and allowed return
19 on equity, each of the deferral accounts BCTC is applying for, the timing of this Application, and
20 other ancillary matters.

21 **BCTC's Capital Structure and Allowed Return on Equity**

22 BCTC is currently carrying approximately \$20 million of equity on its balance sheet. This is a
23 low level of equity capitalization relative to the revenue and cost variances that BCTC will be
24 exposed to once BCTC's Transmission Tariff is in place.

25 BCTC's capital structure and allowed return on equity is established under Special Direction No.
26 9. Under section 3(c) of Special Direction No. 9, BCTC is given the opportunity to earn a return
27 on equity equal to that allowed to BC Hydro. Under section 4(d) of Special Direction HC2, the

Commission must allow BC Hydro to achieve an annual return on equity equal to the pre-income tax annual rate of return allowed by the Commission to the most comparable investor-owned utility regulated under the *Utilities Commission Act*. BC Hydro has indicated in its application filed concurrently with this Application that the most comparable investor-owned utility is Terasen Gas. Terasen Gas is considered by the Commission to be a low-risk utility (see Commission Order No. G-102-02 and Letter No. L-46-02).

Utilization and Credit Risk Deferral Account

Under the Master Agreement between BC Hydro and BCTC, once BCTC's Transmission Tariff comes into effect, BCTC will be responsible for receiving payments from transmission customers under rates designed to recover:

1. BCTC's own revenue requirement;
2. BC Hydro's Owner's revenue requirement; and
3. the Asset Management/Maintenance revenue requirement.

Collectively, these components form the Transmission Revenue Requirement.

BCTC is currently responsible for operating the transmission system. After April 1, 2005, it will also be responsible for providing transmission services under its own Transmission Tariff and administering this tariff. Given these responsibilities, the Master Agreement provides, in subsections 4.13(d) and (e), that BCTC should bear the risk of any over or under collection of the Transmission Revenue Requirement. However, recognizing that BCTC has limited financial resources and, therefore, limited ability to absorb any significant revenue shortfalls, the Master Agreement also provides in section 4.13(f) that the risk of revenue shortfalls only remains with BCTC if the Commission approves a deferral account allowing BCTC to track and recover these shortfalls.

Section 6(a) of Special Direction No. 9 now provides that the Commission must allow BCTC to establish a deferral account or accounts to track and recover revenue shortfalls as contemplated by section 4.13(f) of the Master Agreement.

One of the circumstances that can result in an over or under collection of the Transmission Revenue Requirement is system utilization. Point-to-Point revenue under the existing Wholesale Transmission Services tariff is volume-dependent. Point-to-Point revenues can vary dramatically from forecast, since usage is dependent upon volatile factors beyond BCTC's control, such as energy prices in neighbouring markets, water conditions, and regional economic conditions.

A further circumstance that can give rise to revenue shortfalls is credit failures. BCTC's current credit policy, consistent with that used by BC Hydro in its administration of the WTS tariff, only permits BCTC to request 90 days security from a WTS customer for transmission service. Under the terms of Tariff Supplement 30, BCTC could be exposed to credit risks for a substantially longer period.

BCTC believes that it is preferable to apply for deferral treatment of credit failures beyond its control than to apply to tighten its credit security requirements. BCTC believes that tightening credit requirements beyond those already provided for under its current credit policy would be inconsistent with the Energy Plan which seeks to encourage third-party use of the transmission system.

As contemplated in section 6(a) of Special Direction No. 9 and section 4.13(f) of the Master Agreement, BCTC seeks approval of a Utilization and Credit Risk Deferral Account (UCRDA) to accrue revenue variances (positive and negative) resulting from differences between forecast and actual revenues. BCTC proposes that the UCRDA would accrue annual variances between forecast and actual revenues. BCTC does not seek deferral treatment for revenue variances attributable to imprudent administration of its Transmission Tariff, including credit and collection procedures, or imprudent operation of the transmission system.

Under section 6(c) of Special Direction No. 9, the Commission must fix or regulate BCTC's rates in such a way as to allow any deferral account to be cleared from time to time and within a reasonable period of time. BCTC proposes that the Commission consider appropriate rate making treatment for any accrued balance in the UCRDA whenever it is considering BCTC's rates, including following an application from either BCTC or its customers that the balance is becoming unreasonably large.

Emergency Maintenance Expenditure Deferral Account

BCTC is seeking an Emergency Maintenance Expenditure Deferral Account (EMEDA) for non-capital emergency expenses, such as higher-than-forecast costs incurred as a result of unanticipated major equipment failures, extreme weather, wildfires, or similar events. BCTC's low level of equity does not provide a sufficient cushion to absorb substantial emergency maintenance expenditures.

Historically, unexpected transmission maintenance activities have averaged \$2.0 million per year. BCTC has sought recovery in BC Hydro's Revenue Requirements Application filed concurrently with this Application for annual non-capital emergency expenditures of this amount and expects to continue to make provisions for this in the future. The EMEDA would capture variances between the amount forecast and provided for in rates for non-capital emergency expenditures and the actual amount spent. BCTC will file a report with the Commission each year detailing its non-capital emergency expenditures for the previous fiscal year. BCTC expects that only prudently incurred non-capital emergency expenditures would be included for recovery in rates. Any variances between forecast and prudently incurred actual amounts would be accrued in the EMEDA.

BCTC proposes the Commission consider the appropriate rate making treatment for any accrued balance in the EMEDA whenever it is considering BCTC's rates, including following an application from either BCTC or its customers that the balance is becoming unreasonably large.

Cost of Market Deferral Account

BCTC expects that it may need to rely on BC Hydro and other independent generators for congestion management and ancillary services (Cost of Market expenses). For a further discussion of these expenses see Chapter 6, Section 4 of BC Hydro's Revenue Requirements Application filed concurrently with this Application.

Forecasting Cost of Market expenses is difficult, and actual expenditures will depend on events that are largely outside BCTC's control. BCTC is seeking a Cost of Market Deferral Account (COMDA) for actual Cost of Market expenses beyond forecast levels. BCTC requires this account because of the difficulty in forecasting these costs, because actual expenditures are

beyond its effective control, and because its low level of equity does not provide a sufficient cushion to absorb substantial Cost of Market expenditures.

BCTC believes this account is critical during the early phases of its operations, when the utility is gaining experience with Cost of Market expenses in a new environment.

The COMDA would capture all variances between forecast and actual Cost of Market expenditures. BCTC proposes the Commission consider the appropriate rate making treatment for any accrued balance in the COMDA whenever it is considering BCTC's rates, including following an application from either BCTC or its customers that the balance is becoming unreasonably large. BCTC expects that only prudently incurred Cost of Market costs would be included for recovery in rates.

Regulatory Expenditures Deferral Account

BCTC is seeking a Regulatory Expenditures Deferral Account (REDA) to capture the variances between forecast and actual regulatory costs in any period. BCTC believes this account is beneficial to all parties since it reduces forecasting risk during the period when BCTC is first coming under Commission regulation. During this period BCTC will be unable to predict, with accuracy, the nature of the regulatory processes it will be facing, and their associated costs.

BCTC proposes the Commission consider the appropriate rate making treatment for any accrued balance in the REDA whenever it is considering BCTC's rates, including following an application from either BCTC or its customers that the balance is becoming unreasonably large. BCTC expects that only those regulatory costs that are prudently incurred by BCTC would be included for recovery in rates.

System Control Modernization Study Deferral Account

System operations technologies have a life expectancy of 10 to 15 years. After that, maintenance costs can increase, while reliability can degrade to unacceptable levels. At the same time, it can become extremely difficult to accommodate normal system growth and system changes.

BCTC's existing operations and control infrastructure is already showing signs of strain, which is limiting effective and reliable operation of the transmission system. Moreover, proper back-up

1 systems for existing control centres are inadequate. This is creating an unacceptable level of
2 risk, particularly given the increasing focus on site security for critical components of the
3 transmission system.

4 As a result of these conditions, BCTC is currently developing a strategy to address this
5 significant issue. In particular, BCTC has begun work on a System Control Modernization
6 Project. The Definition Phase of this Project involves system configuration and facilities
7 specifications studies and the development and refinement of a business case and detailed project
8 plan. It is expected that costs in the Definition Phase will total approximately \$1.8 million
9 dollars. As these costs ultimately relate to BCTC capital expenditures, these costs are not funded
10 by BC Hydro. A preliminary Project justification and accounting of the Definition Phase budget
11 are attached as Appendix A to this Application.

12 BCTC is seeking Commission approval that Definition Phase costs (not to exceed \$2.0 million)
13 be accrued in a System Control Modernization Study Deferral Account. BCTC is seeking
14 Commission approval that the balance of this deferral account would be capitalized along with
15 other Project costs should the Project ultimately receive a Certificate of Public Convenience and
16 Necessity from the Commission and enter service. In the event the Project is not approved for
17 construction or is not built for some other reason, BCTC is seeking Commission approval that it
18 is allowed to recover the balance of the System Control Modernization Study Deferral Account
19 in rates within a reasonable period of time following a decision to terminate the Project. BCTC
20 expects that actual Definition Phase expenditures would be reviewed for prudence before being
21 included in rates.

22 **Timing**

23 In the case of the System Control Modernization Study Deferral Account, BCTC has already
24 begun the preliminary investigations of this Project. As such, it is seeking the earliest possible
25 decision on this part of the Application.

26 In the case of the other accounts covered by this Application, BCTC expects to make an
27 application for the recovery of its F2006 costs and to establish rates under its Transmission Tariff
28 in late 2004. BCTC will not bear the risk of the revenue and cost variances discussed above until

1 F2006. BCTC seeks approval for the establishment of these deferral accounts at this time
2 because it is essential that BCTC have a full understanding of its overall risk profile before it can
3 finalize its application for its new Transmission Tariff.

4 BCTC requests that this Application (with the exception of that portion relating to the System
5 Control Modernization Study Deferral Account) be heard at the same time as BC Hydro's
6 Revenue Requirement Application and that the record formed in that proceeding also is used as
7 the record in this proceeding.

8 **Interest on Deferral Account Balances**

9 BCTC seeks to recover in rates any interest costs associated with the balances in any of the
10 deferral accounts sought in this Application and approved by the Commission. Similarly, BCTC
11 believes that rate compensation is appropriate to reflect accrued interest on positive balances in
12 these accounts. Interest rates used should be those rates judged reasonable by the Commission
13 from time to time.

14 All of which is respectfully submitted.

15 Dated at Vancouver, British Columbia, this 15th day of December 2003.

16 BRITISH COLUMBIA TRANSMISSION CORPORATION

17 *"Original signed by Cameron Lusztig"*

18 Cameron Lusztig
19 Director, Regulatory Affairs
20

1 Communications with respect to this Application should be sent to:

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4 Suite 1100, Four Bentall Centre
5 1055 Dunsmuir Street
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9
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13
14 And to:

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21 Attention: Peter Feldberg and Sandy Carpenter

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Appendix A

System Control Modernization Project – Definition Phase

Background

BCTC has one system control centre, four area control centres, and a telecommunications network operations centre located at six sites across the province. The System Control Centre, located in Burnaby, performs the transmission system operations function and some generation dispatch functions.

Area control centres are located in Burnaby, Duncan, Vernon, and Prince George. These centres perform a combination of transmission, distribution, and generation operating functions. The exact nature of the functions varies based on the type and number of facilities located with each control area. In addition, the area control centre in Vernon provides very limited back up for the System Control Centre.

The Telecommunications Network Operations centre monitors the microwave and fibre-optic communication networks which provide the control centres with visibility and remote control of connected transmission, generation and distribution functions. It also provides outage co-ordination, fault resolution, operations, and technical support.

The current Energy Management System (“EMS”) and System Control and Data Acquisition (“SCADA”) system installed at the five control centres is a late-1980s version of a Landis & Gyr product, running on a VAX/VMS platform. The Landis & Gyr product was designed and installed to serve a distributed/vertically integrated utility operating model which is now out of date. BCTC is migrating the product onto Alpha/Open VMS platforms at all control centres. This approach will provide interim improvement of performance and re-establish a system baseline.

In 2002, an assessment study of the current EMS/SCADA systems was undertaken. This study (the costs of which are included in those for which BCTC is seeking deferral treatment) considered the current capabilities of these systems, and compared them with the existing and anticipated needs of BCTC. The study concluded that the current system is not well equipped to serve the needs of transmission users, and should be replaced. In particular, the study found that compared with modern product offerings, the current system has functional limitations, usability issues, and requires extensive cost and effort to maintain, update, and modify.

For greater detail on BCTC’s control centre structure and operations, see Chapter 6, Section 3.1.6 of BC Hydro’s Revenue Requirements Application filed concurrently with this Application.

The Need for System Control Modernization

As noted above, the present technology is becoming increasingly problematic in the areas of backup facilities, relational databases, configuration tools, integration and data sharing,

1 reporting, vendor support, and graphical interface. In addition, the existing systems were
2 established to support an operating model that no longer exists.

3 Limitations with the existing system affect BCTC's ability to manage congestion, perform
4 security analysis, support control centre operations, acquire real time data, monitor and operate
5 the grid, and calculate and update total transfer capability. The result is compromised system
6 optimization and an increasing threat to grid reliability as the complexity and volume of
7 transactions continues to increase.

8 The physical spread of BCTC's control system across six locations also raises concerns. This
9 structure results in significant issues for:

- 10 • managing staff selection and transfer;
- 11 • ensuring consistent and timely procedures for customers;
- 12 • safety management;
- 13 • training development and delivery; and
- 14 • optimising the use of highly specialised staff.

15 Previous work has identified that many of these issues can be effectively addressed by
16 significantly reducing the number of BCTC operating locations.

17 ***Expenditures for Which Deferral Treatment is Being Sought***

18 BCTC is investing \$1.8 million dollars to undertake the necessary studies and analysis to
19 evaluate a proposed consolidation and modernization of its five control centres and the Telecom
20 Network Operations. This process is the first step (the Definition Phase) of a System Control
21 Modernization Project that, in total, is expected to cost up to \$100 million. BCTC will seek any
22 necessary approvals from the Commission before advancing the project beyond the Definition
23 Phase.

24 To this point, BCTC has spent, or committed to spend, \$800,000. These funds were used to:

- 25 • Perform an assessment and "gap analysis" of the existing EMS/SCADA;
- 26 • Perform initial site assessments;
- 27 • Prepare initial budgetary estimates for the System Control Modernization Project;
28 and
- 29 • Engage KEMA consulting to complete an initial assessment of possible control
30 centre configurations and assess the required EMS/SCADA functionality
31 specifications.

1 Up to March 31, 2004, a further \$1.0 million will be spent (producing the \$1.8 million total), at
2 which point the following will have been achieved:

- 3 • Recommendations on the number and site(s) for new control centre(s);
- 4 • Recommended configuration(s) for each control centre;
- 5 • Detailed configuration and design specifications for an EMS/SCADA including
6 associated remote site control and communications aspects;
- 7 • Recommended staffing and service delivery strategy, processes, and capital and
8 OMA costs for the recommended configuration(s) and for the transition to
9 that/those configuration(s);
- 10 • A formal business case that, in consideration of the studies and reports described
11 above, will provide key assumptions, alternatives, and recommendations and a
12 formal project plan, complete with detailed costs and break down of the Project
13 structure.

14 The following represents a more detailed breakdown of the \$1.8 million total cost of the
15 Definition Phase:

16		
17	BCTC Labour and Expenses (above that reflected in forecast rates)	\$180k
18	Payments to BC Hydro Engineering and Properties (labour and expenses)	\$300k
19	Consultant Fees (including systems and architecture)	\$1,020k
20	Contingency, Overhead, and Interest	\$300k
21	Total	\$1,800k