



**IN THE MATTER OF**

**BRITISH COLUMBIA TRANSMISSION CORPORATION  
APPLICATION FOR AN OPEN ACCESS TRANSMISSION TARIFF**

**AND**

**BRITISH COLUMBIA HYDRO AND POWER AUTHORITY  
APPLICATION FOR INTERCONNECTED OPERATIONS SERVICES  
TO BRITISH COLUMBIA TRANSMISSION CORPORATION**

**DECISION**

**JUNE 20, 2005**

**Before:**

**Robert H. Hobbs, Chair  
Liisa A. O'Hara, Commissioner**

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## 1.0 BACKGROUND

British Columbia Transmission Corporation is a provincial crown corporation that was created by the Transmission Corporation Act (SBC 2003, c.44). It commenced operations on August 1, 2003.

BCTC is responsible for operating, managing, planning and maintaining the transmission system that is owned by British Columbia Hydro and Power Authority. BCTC is independent of BC Hydro and has a separate Board of Directors. The relationship between the transmission owner (BC Hydro) and the transmission operator (BCTC) is set out in five key agreements (Exhibit B1-11, Tab BCUC) designated by Order in Council No. 1083. Of these, the most central to the Open Access Transmission Tariff Application is the Master Agreement between British Columbia Hydro and Power Authority and British Columbia Transmission Corporation dated as of November 12, 2003. Section 4 of the Master Agreement establishes certain principles that are to guide BCTC's operation of the transmission system and certain requirements of an Open Access Transmission Tariff.

Under the TCA, BCTC was required to seek an Order from the British Columbia Utilities Commission by December 31, 2004 for the approval of BCTC's first schedule of rates. BCTC filed its Application for an OATT on August 3, 2004. If approved, the OATT will replace BC Hydro's Wholesale Transmission Services Tariff, which was approved by the Commission in 1998 as the tariff applicable for providing open-access transmission service on BC Hydro's transmission system.

The Application requests three Orders from the Commission:

- An Order approving BCTC's OATT, including the BCTC OATT Terms and Conditions of Service; rate design and new Interconnection Tariff.
- An Order acknowledging that industrial customers served under BC Hydro's Rate Schedule 1821 are Eligible Customers under the OATT.
- An Order closing, as at the effective date of the OATT, BC Hydro's Tariff Supplement No. 30, and Rate Schedules 3003 to 3010.

BCTC's proposed OATT contains three elements: terms and conditions of service, rate sheets and a contribution policy. Under the OATT, BCTC proposes to offer three services that were available under

BC Hydro's WTS Tariff: Point-to-Point Transmission Service, Network Integration Transmission Service and Ancillary Services. BCTC also proposes to add Interconnection Service under the OATT.

Ancillary Services are primarily generator-supplied services necessary to support the reliable movement of energy across the transmission system. Under the OATT, BCTC will become the provider of last resort for AS to transmission customers and must procure the energy or capacity necessary to provide the required AS since BCTC has no generation resources of its own. While BCTC is proposing an approach to procure the necessary energy and capacity from qualified non-BC Hydro providers, it anticipates that most of the energy and capacity will continue to be provided by BC Hydro.

On October 29, 2004, BCTC filed an amended version of the OATT Terms and Conditions, including amended versions of some attachments to the OATT and an amended Standard Generator Interconnection Agreement (Exhibit B1-7). BCTC filed further amendments by letter dated February 25, 2005 (Exhibit B1-27).

Interconnected Operations Services refers to the BC Hydro generation resources required by BCTC to provide AS. Under Section 6.3 of the Master Agreement BC Hydro is to offer to provide IOS that is required by BCTC and is not readily available to BCTC from other sources (Exhibit B1-11, Response to BCUC IR 3.1.0). On August 3, 2004, BC Hydro filed an Application requesting approval of Tariffs setting out the rates for providing IOS to BCTC.

By Order No. G-74-04, the Commission established a Pre-Hearing Conference, held on August 17, 2004, to consider the process and timetable for reviewing the Application. By Order No. G-81-04, the Commission determined that it would hear the BC Hydro IOS Application at the same time as the BCTC OATT Application, and established a regulatory timetable for reviewing the Applications. The regulatory timetable established a Workshop on the OATT Application, led by BCTC and held on September 14, 2004, and a second Pre-Hearing Conference. The regulatory timetable was subsequently amended by Order No. G-92-04 and the second Pre-Hearing Conference was held on December 15, 2004. Order No. G-120-04 further amended the regulatory timetable. A procedural day to hear opening comments from participants and identify issues for the hearing was held on January 19, 2005. The oral

public hearing to review the Applications commenced on Monday February 28, 2005. The hearing lasted for seven days, ending on March 8, 2005. Written argument was filed by the Applicants by March 22, and by the Intervenors (including BCTC and BC Hydro, which had intervened on each other's Applications) by April 5, 2005. Reply Argument was filed by the Applicants by April 12 and the Oral Phase of Argument was held on April 19, 2005.

On February 15, 2005 BCTC applied for approval of temporary terms and conditions of transmission service to be effective from April 1, 2005 to the date of BCTC's implementation of the Commission's Decision on the OATT Application. This filing would effectively roll-over the terms and conditions contained in BC Hydro's current Electric Tariff Supplement 30 – the WTS Tariff. This application is referred to as the WTS Roll Over Tariff Application and was intended to enable BCTC to complete the transition to an independent Transmission Provider on April 1, 2005 as contemplated by the Transmission Corporation Act and the Designated Agreements. The Commission approved the WTS Roll Over Tariff Application by Order No. G-25-05 dated March 11, 2005.

In the OATT Application, BCTC is not requesting approval of actual transmission rates for the fiscal year 2006, as determination of actual rates requires the prior approval by the Commission of several aspects of the rates. A key element of determining the actual rate is approval of the F2006 revenue requirement and the associated billing determinants which is the subject of a separate application. Therefore, BCTC is seeking approval only of pro-forma rate schedules and the method of allocating costs between PTP and NITS services (Exhibit B1-1, p. 10; Exhibit B1-4, p. 5).

## **2.0 POLICY AND OBJECTIVES**

The OATT Application was influenced by the Designated Agreements between BC Hydro and BCTC under the TCA, the restructuring of the BC electricity industry that occurred in the furtherance of the Energy Plan, and the industry standards and developments taking place in the Pacific Northwest and across North America. The Hearing Issues List identified the Energy Plan and SD9, objectives of the OATT rate design and the impact of inter-jurisdictional considerations on rate design as important issues to be addressed. This Section discusses the above three components of the OATT policy framework as they relate to the SD9, the OATT rate design objectives and inter-jurisdictional considerations.

### **2.1 Energy Plan and Special Direction No. 9**

Under the terms of the Master Agreement between BCTC and BC Hydro, BCTC is responsible for operating, maintaining, controlling managing and planning the BC Hydro transmission system. BCTC is also responsible for designing, developing and applying for an OATT to replace BC Hydro's WTS Tariff.

The review of the OATT Application has taken place in the context of significant regulatory policy developments affecting the electric industry in BC. In particular, the Province developed a new energy policy contained in the Energy Plan. The Energy Plan, which was the culmination of an 18-month development and consultation process, was issued by the Minister of Energy and Mines on November 25, 2002. The four cornerstones of the Energy Plan are:

- Low electricity rates and public ownership of BC Hydro;
- Secure, reliable supply;
- More private sector opportunities; and
- Environmental responsibility and no nuclear power sources.

After introducing the Energy Plan the provincial government also expanded the mandate of the BCUC and issued SD9 to the Commission. Section 4 of this Special Direction, designated by Order in Council No. 1107 on November 27, 2003, addresses the topic of new transmission system capital investment. Paraphrased below, it provides in part that the Commission in the exercise of its jurisdiction under section 45(1) and (6.2) of the Act as that jurisdiction relates to applications brought, or capital plans filed, by BCTC, may

- (a) consider and take into account
  - (i) the anticipated demand for electricity and electricity service, and
  - (ii) the benefits, including the benefits related to enhanced access to, and expansion, of, electricity markets, that the commission considers are reasonably likely to result from certain listed proposed expenditures for transmission equipment or facilities, and
- (b) determine which of those expenditures are justified on the basis of the future benefits to be derived from the proposed expenditures and may be recovered in current rates.

BCTC states that it has not considered the provisions of Section 4 of SD9 in the design of the proposed OATT. The OATT is a tariff between BCTC and its customers that establishes the terms and conditions pursuant to which BCTC will build, provide, and charge for the transmission service requested by these customers. As such, it is designed to ensure the availability of system expansions expressly made to serve committed customer needs. BCTC may also undertake facilities upgrades of its own volition, subject to Commission approval. BCTC submits that such approval, and the use of Section 4 of SD9, is a matter better addressed in BCTC's capital planning processes than in a consideration of the terms and conditions of wholesale transmission service and rate design (BCTC Argument, p. 4, para. 11).

CBTE argues that the approach taken by BCTC is far too simplistic. CBTE states that the OATT represents a crucial crossroads for the BC electricity industry and that the outcome of the OATT proceeding will be very important for the future of the electricity industry, especially the IPP industry, in BC. The Energy Plan and SD9 are both important parts of the policy framework for the OATT. In CBTE's view it is not possible to deal with many of the issues raised in the OATT without taking into consideration the directions from the Government under SD9. CBTE further states that had BCTC

followed the intent of this direction, many of the access and system development issues raised during the hearing would already have been resolved (CBTE Argument, pp. 1-4).

According to CPC, the clear implication of SD9 is that BCTC is expected to take a proactive role in identifying, evaluating and undertaking major upgrades that will expand the capacity for both LTF PTP and NITS customers and benefit the transmission system as a whole. CPC submits that one of the key deficiencies of the proposed OATT is the vacuum that will exist for timely and efficient development of large “lumpy” investments. CPC argues that as a condition of the approval of the OATT, the Commission should require BCTC to bring forward plans or processes that provide for proactive development by BCTC of such system upgrades supported by appropriate cost-benefit evaluations and cost allocation criteria (CPC Argument, p. 2).

Other Intervenors generally endorse or implicitly accept the policy approach taken by BCTC in developing the proposed OATT.

### Commission Determination

The Commission Panel accepts in the short term BCTC’s argument that the OATT is a tariff between BCTC and its customers setting out the contractual arrangements pursuant to which each will be provided the capacity required for transmission service. In a narrow sense it is a contract-driven model of expansion, where the Transmission Provider plans to meet the forecast needs of its Network Customers and builds for those PTP customers that accept the provisions of the investment policy.

At the same time, the Commission Panel is cognizant of the issues raised by interested parties regarding the efficient development of large “lumpy” investments, the need for a more proactive role for BCTC and the philosophical shift taking place in North America towards the “build and they will come” (T8: 972) approach. To ensure that the integral connections between the OATT, SD9 and System Planning and their long-term implications will not be lost in the regulatory process the Commission Panel addresses these issues in Section 12: Transmission Planning Advisory Committee and System Planning.

## 2.2 Energy Plan and Objectives of the OATT Rate Design

### Introduction

This section addresses the degree to which the OATT should be responsive to the objectives in the Energy Plan. It clarifies what part the OATT should play in market reform, if any, including meeting objectives in the Energy Plan beyond Policy Action 15. It also elaborates on questions such as the appropriateness of a traditional rate design in the context of an open access tariff and what consideration should be given to using transmission rate design to encourage transmission and generation efficiencies.

### Energy Plan Policy Actions vis-à-vis the OATT

The Policy Actions set out in the Energy Plan have played a key role in the OATT proceedings. Significant Policy Actions include:

- Policy Action 2: BC Hydro ratepayers will continue to benefit from electricity trade.
- Policy Action 7: High reliability and energy security will be maintained through well-functioning natural gas markets and coordinated electricity planning.
- Policy Action 9: Electricity distributors will acquire new supply on a least-cost basis, with regulatory oversight by the BC Utilities Commission.
- Policy Action 13: The private sector will develop new electricity generation, with BC Hydro restricted to improvements at existing plants.
- Policy Action 14: Under new rates, large electricity consumers will be able to choose a supplier other than the local distributor.
- Policy Action 15: BCTC will improve access to the transmission system and enable IPP participation in the US wholesale markets.
- Policy Action 20: Electricity distributors will pursue a voluntary goal to acquire 50 percent of new supply from BC Clean Electricity over the next 10 years.

These policy actions seek to balance a number of objectives, including maintaining system reliability, enabling participation by IPP's, promoting energy trade and meeting environmental targets. Similarly, BCTC states that, within this policy framework, its proposed OATT achieves a balance among the competing interests of its customers (BCTC Argument, p. 2, para. 4).

CPC argues that the OATT must go further than proposed by BCTC by providing improved transmission products, mitigating the high cost of LTF PTP service, facilitating upgrade investments by IPPs and facilitating cross-jurisdictional coordination of system expansions (CPC Argument, pp. 1-2).

BCOAPO agrees that it was appropriate for BCTC to be guided by the Policy Actions. However, BCOAPO points out that only Policy Action 15 and possibly Policy Action 14 require any action by BCTC. The other Policy Actions merely require BCTC not to take steps to impede implementation of Policy Actions by other parties, particularly BC Hydro. BCOAPO further argues that Policy Actions should not be used as a rationale for rate design and that BCTC appears to rely on Policy Action 20 as one of the reasons for its proposal to implement the BC Clean rate (BCOAPO Argument, p. 4).

#### Appropriateness of the Proposed Rate Design Objectives

BCTC states that the Master Agreement between BC Hydro and BCTC sets out a number of principles that have also been taken into account in designing the OATT. These principles include safety, reliability, availability, efficiency, cost-effectiveness and service quality. The Master Agreement also contemplates the operation of the transmission system in a manner that maximizes use of the system, through appropriate pricing and discounting policies, subject to Commission approval (BCTC Argument, p. 4, para. 9).

In addition to the Energy Plan objectives and the guiding principles of the Master Agreement, BCTC also includes objectives drawn from its stakeholder consultation process. These objectives are reliability, low rates (as low as possible), non-discriminatory access to all eligible customers, transparent and efficient interconnection policy and a fair, efficient, easy-to-use tariff (Exhibit B1-1, p. 18).

While most Intervenors appeared to endorse the proposed objectives for rate design, the JIESC expert witnesses, Messrs. Saleba and Piliaris, submitted that cost causation should be a key objective. In Mr. Saleba's view cost causation is the paramount consideration in the cost allocation phase as well as a strong starting point for rate design (T10: 1418-1419). The JIESC submits that the evidence of Messrs. Saleba and Piliaris recognizes the usages of the system we have in British Columbia and the cost causation on the system and accordingly should be the basis of an initial cost allocation no matter what eventual rate design may be adopted subsequently (JIESC Argument, p. 9).

BCTC's expert witness, Dr. Orans, argued that cost causation is not a rate making principle in itself. Rather, it is a test to determine whether the rates and the allocations are fair and whether the rates are efficient (T6: 434). Furthermore, when responding to the Commission Panel question regarding the appropriateness of traditional cost of service and rate design approaches in the context of an open access tariff, the BCTC expert witness acknowledged them "as very important when you are restructuring an entire tariff". If an applicant were to create a whole set of new services that are fundamentally different from services offered previously it would be incumbent upon the applicant to re-file cost-of-service studies, to assess bill impacts, cost shifting, equity, efficiency, non-discriminatory access and other design issues. Dr. Orans then pointed out that the current OATT filing does not represent a fundamental change but rather is just a "tune-up" of the 1998 WTS Tariff (T8: 966-967).

With regard to the use of transmission rate design to encourage transmission and generation efficiencies, BCTC states that its efforts to optimize the system while avoiding cost shifting among customers unless there was a clearly identified policy objective to be met are clearly evident in the structure of the proposed OATT (BCTC Argument, p. 7, para. 19). BCTC submits that it has brought forward innovative improvements that encourage both transmission and generation efficiencies.

The JIESC submits that tariff rate design is a zero sum game. Any benefits provided to the LTF PTP customers and IPPs comes at the expense of BC Hydro, the NITS customer, and is ultimately paid by all of BC Hydro's customers. While the Energy Plan is clear that BCTC should work toward better system utilization and lower rates, there is nothing in the plan to suggest that the Energy Policy intended that BC Hydro customers subsidize the transmission rates of IPPs and others who wish to export or wheel electricity through BC (JIESC Argument, p. 2).

CPC urges the Commission to instruct BCTC to develop design elements that will promote efficient use of the transmission system and efficient development of power resources in BC by parties other than just BC Hydro (CPC Argument, p. 3).

### Commission Determination

The Commission Panel acknowledges the proposed OATT rate design was based on the 1998 WTS Tariff and, therefore, does not believe that there is a requirement for a comprehensive assessment in this Decision. Accordingly, the Commission Panel notes that the proposed rate design objectives, which BCTC identified as the six guiding principles of the Master Agreement, increasing the system utilization as per Master Agreement, and additional objectives drawn from the consultation process, are appropriate within the context of this Application. Additional context is included in Section 4.1: Rate Design for LTF PTP Service.

The Commission Panel commends BCTC for its efforts to achieve Energy Plan goals by way of a detailed rate design. The Commission Panel, however, finds itself constrained by its regulatory mandate as set out in the UCA. BCUC must comply with section 59, which provides, in part, that a public utility must not make, demand or receive an unjust, unreasonable, unduly discriminatory or unduly preferential rate for a service provided by it in British Columbia. The Energy Plan can inspire innovative rate design but cannot be used as sole rationale for such rate design initiatives. The Energy Plan provides checkpoints for BCTC to ensure that its proposed rate design does not impede implementation of Energy Plan actions by other parties.

The Commission Panel finds that the objective of increasing the utilization of the transmission system is appropriate. When deliberating on various rate design proposals the Commission Panel must consider whether it is in the public interest to have potentially higher rates in the short term for NITS customers in anticipation of lower rates in the long term in order to develop the IPP markets.

### **2.3 Rate Design Changes and Inter-Jurisdiction Considerations**

The third part of the policy framework consists of the FERC Order No. 888 Pro Forma-style tariff and the industry developments taking place in the Pacific Northwest. BCTC submits that the OATT is based on the WTS Tariff, which was based on the FERC Order No. 888 Pro Forma tariff. BCTC notes that the FERC Order No. 888 Pro Forma tariff established rates, terms and conditions of non-discriminatory, open access transmission service; it is well understood in the industry and has a body of case law that aids in its interpretation. Therefore, BCTC has taken a pragmatic approach to departing from the provisions of this tariff, and has not sought to substantially change the tariff language (BCTC Argument, p. 3, para. 6-7).

BCTC states that it is alert to industry practice and has sought to ensure that its tariffs and practices remain consistent with those of BC's trading partners. BCTC is participating in developments in the Pacific Northwest, which are focused on coordinated transmission planning and the removal of trade barriers that could lead to more substantial rate design changes in the future. Nevertheless, BCTC submits it would be unwise to make fundamental changes to the tariff that would get BC too far ahead of neighbouring systems given the volume of electricity trade and the risk of creating seams through overly creative tariff innovations (BCTC Argument, pp. 5-6, para. 13-14).

The JIESC supports the decision by BCTC to follow generally FERC Order No. 888 Pro Forma tariff. It states that this should improve the acceptability of the tariff and should protect trade opportunities (JIESC Argument, p. 1).

AESO argues that BCTC's objective of adopting what would appear to be neutral tariff design must be assessed by examining the resulting effects. AESO submits that, because BCTC has adopted some changes to the FERC Order No. 888 Pro Forma tariff, it cannot claim that it opposes all changes to the FERC Order No. 888 Pro Forma tariff (AESO Argument, p. 25). TCE points out that there are a number of key factors that influence the appropriateness of an un-amended FERC Order No. 888 Pro Forma tariff in BC. Such factors include the dominance of a single Network Customer, which is also the largest consumer of PTP transmission, the single point of connection through BC between the Canadian

electricity market and the large wholesale market of the Pacific Northwest, and the small fraction of power produced by IPPs. TCE argues that these characteristics must be considered when evaluating what attributes are necessary for an OATT in BC that encourages fair and open access to transmission and fosters increased competition (TCE Argument, pp. 2-3).

CPC submits that the basic principles of FERC Order No. 888 are to establish maximum cost-based prices, to provide for the increase in capacity in response to customer requests, and to provide service in a non-discriminatory manner. However, these principles do not preclude, and indeed the FERC supports, the design of rates that promote more efficient use and competitive access to transmission. CPC argues that there are several rate design and related changes that BCTC has acknowledged are worthwhile concepts but has not yet developed due to a lack of time; such as re-dispatch and back-up services at border delivery points (CPC Argument, p. 3).

IPPBC is frustrated with the lack of progress in improving access to the transmission system and IPP participation in US wholesale markets. IPPBC sees the FERC Order No. 888 Pro Forma tariff as maintaining the status quo and fears that positive developments with Grid West are many years away (IPPBC Argument, pp. 2-3).

Grid West, the successor organization to RTO West, is a non-profit Washington State corporation with participation from ten utilities including BCTC. The primary goal of this organization is to engage in development work for a future operational stage in which it would oversee the operations of all the transmission systems and energy markets throughout the Pacific Northwest.

### Commission Determination

With regard to the requirements of the FERC, the Commission Panel notes that BCTC must comply with Section 4.5 of the Master Agreement which provides that:

BCTC will at all times seek to ensure that the terms and conditions of the OATT, BCTC business practices and governance (for example, independence from generation owners), or any of them:

- (a) meet the requirements of the Commission with respect to transmission tariffs, and
- (b) subject to the approval of the Commission, meet the requirements of the FERC, other regulators and other transmission operators to the extent necessary to permit continued access at marked-based rates by electricity market participants in British Columbia to United States and other Canadian electricity markets outside of British Columbia, including by BC Hydro and Powerex.

The Commission Panel acknowledges that there may be changes in the Pacific Northwest, such as Grid West developments, that could drive future rate design changes in British Columbia. However, the nature and timing of such changes remains uncertain. Based on the above, the Commission Panel finds that BCTC appropriately chose the FERC Order No. 888 Pro Forma tariff as a template for its OATT proposal. On the other hand, the evidence seems to indicate that this Pro Forma template has an illusion of precision and need not entirely direct the Commission Panel in its findings.

The Commission Panel accepts that within the policy framework created by the FERC Order No. 888 Pro Forma tariff, the Energy Plan and the Master Agreement BCTC has sought to strike an appropriate balance among the interests of its customers. However, while BCTC's intentions are commendable, BCTC by its own admission approached the Application as a mere "tune-up" of the 1998 WTS Tariff. Therefore, the Commission Panel finds that BCTC has not become enough of an agent of change from the longer term perspective. With a rapidly changing electricity industry, a period of some ten years seems too long to go without a fundamental review of rate design. To promote a more efficient use of and competitive access to the transmission system, BCTC must continue to innovate with renewed consideration of options for restructuring the entire tariff from a cost causation perspective.

### **3.0 NETWORK INTEGRATION TRANSMISSION SERVICE**

#### **3.1 NITS Rate Design**

BCTC proposes to maintain the format and method of calculating the NITS rate that was approved as part of the WTS Tariff. NITS allows a Network Customer to integrate, economically dispatch and regulate its current and planned Network Resources to serve its Network Load (Exhibit B1-1, Appendix A, Section III, p. 62). Currently BC Hydro is BCTC's only Network Customer.

The rates for NITS collect the Network TRR, which is equal to the total BCTC TRR, net of scheduling and dispatch and engineering services, less forecast point to point revenue (Exhibit B1-4, BCUC IR 10.1). The forecast PTP revenue includes both Long Term Firm and Short Term PTP revenues.

CPC submits that instead of reducing the Network TRR for NITS by the entire forecast ST PTP revenue, it should be reduced instead by only a portion of it allocated on the basis of the capacity contracted for but not utilized by NITS relative to the total reserved capacity, including that for LTF PTP service (T11: 1639).

In this regard, BCTC states:

Network customers guarantee BCTC's entire revenue requirement, net of all PTP revenues. From a financial perspective, this is equivalent to committing to pay for all transmission capacity that is not sold to either long or short term PTP users. Since network users have pre-committed to purchase any unused capacity, they should receive revenue credits associated with long- or short-term service that is sold. Conversely, LTF PTP customers purchase a block of capacity and may resell any unused portion of their service. Hence, unlike network customers, they do not have a commitment to pay for any unused capacity and should not receive a benefit from additional short term sales (Exhibit B1-6, BCUC IR 2 18.0).

BCTC also submits its proposed approach is consistent with the FERC Order No. 888 Pro Forma tariff (T7: 745-746).

On a monthly basis, in accordance with the proposed tariff, each Network Customer is charged an amount equal to the monthly Network TRR, multiplied by its individual Load Ratio Share. The Load Ratio Share is defined as the quotient of the particular Network Customer's monthly coincident peak load, and the total of all Network Customers' monthly coincident peak loads (Exhibit B1-6, JIESC IR 1(b); Exhibit B1-1, Appendix A, Section 1.16). Where only one Network Customer exists, the Load Ratio Share is unity, as is presently the case for BC Hydro.

The JIESC submits there are currently two potential NITS customers, and recommends the NITS rate be expressed in \$/kW, (equal to the Network TRR divided by the sum of the billing demands), and that Network Customers be charged on the basis of this rate multiplied by their contract demand, set at a level to meet their individual firm service requirements. The Commission Panel understands the calculation of the JIESC's proposed rate to require a forecast of all NITS customers' contract demands, to be used as the "billing demands" in the denominator. The JIESC submits this would make NITS charges more predictable and controllable compared to BCTC's proposed approach, which could result in significant variations in NITS bills from month to month, caused not necessarily by the Network Customer in question but by the remaining Network Customers, since the Load Ratio Share is a relative measure (JIESC Argument, p. 10).

#### Commission Determination

The Commission Panel accepts BCTC's proposal that the total forecast ST PTP revenue be used to offset the Network TRR in the calculation of the NITS rate, given Network Customers are ultimately responsible for recovering the entire revenue requirement for the transmission system including any unused capacity that is not sold for LT or ST PTP use. The Commission Panel also supports this in light of the fact this is consistent with the FERC Order No. 888 Pro Forma tariff. The treatment of ST PTP revenue is also further discussed in Section 4.1 below, in respect of the LTF PTP rate design.

The Commission Panel notes the advantages to Network Customers that would result from the JIESC's recommended NITS rate, expressed in \$/kW of contract demand, but also observes that reliance on forecast billing demands in setting the rate could potentially result in over or under collections of the

Network TRR. The Commission Panel is therefore of the view that BCTC's use of Load Ratio Share for the NITS rate is appropriate for the time being. Given there is currently only one NITS customer, BCTC's proposed approach will more predictably collect the forecast Network TRR. If more Network Customers materialize, it may be appropriate to review the effect of the use of the Load Ratio Share on individual Network Customers' bills, and if they appear too unstable, review and, if appropriate, bring forward an application for an alternative billing approach such as the one brought forward by the JIESC in this proceeding. A discussion addressing this matter should be included in BCTC's report to the Commission as further outlined in Section 14.

**The Commission Panel approves the proposed approach to calculate the rate for NITS.**

### **3.2 Time to Execute NITS Agreement**

Section 32.4 of the Terms and Conditions of the proposed OATT (Exhibit B1-7) provides that a Network Customer shall have 60 days to execute a NITS Agreement following the completion of a Facilities Study. This represents an extension from the 30-day period currently provided under BC Hydro's WTS Tariff and the FERC Order No. 888 Pro Forma tariff. In proposing a 60-day period, BCTC sought to balance the needs of the Network Customer against the need to keep the queue (discussed further in Section 6.1) moving (BCTC Argument, p. 21, para. 55).

BC Hydro requests that the execution period for a NITS Agreement be extended to 90 days. BC Hydro suggests that 60 days is insufficient to review the study results and obtain Board approval for such a significant commitment (BC Hydro Argument, p. 47). BC Hydro believes that the period for the review of a transmission system study should be commensurate with the financial scale of the resulting Agreement and complexity of the study. BC Hydro suggests allowing 90 days meets these criteria for an Agreement which can be for an amount in the order of \$0.5 billion/year, resulting from a complex study involving the review of numerous options (Exhibit B2-12, BCUC IR 3 15.4).

BCTC did not consider the amount of service payment in its proposal of 60 days to execute a NITS Agreement, since the request for NITS will recognize its service obligations, and the Agreement lays out

the costs of this obligation. BCTC submits that BC Hydro, as a load serving entity, is not faced with a typical economic choice in this circumstance, rather it is being told by BCTC what transmission solutions are required for BC Hydro to meet its service obligations to retail customers. BC Hydro is not required to test or validate BCTC's conclusions from the study. As such, BCTC does not believe a 60-day decision window imposes an unreasonable requirement on BC Hydro (Exhibit B1-6, BC Hydro IR 30.2).

### Commission Determination

The Commission Panel accepts that a 60 Calendar Day period to execute a NITS Agreement strikes the appropriate balance between keeping the queue moving, and providing sufficient time for the Network Customer to perform its own diligence in respect of transmission related capital expenditures.

**The Commission Panel approves a 60 Calendar Day period to execute a NITS Agreement, as specified in section 32.4 of the OATT Terms and Conditions.**

### **3.3 Attachment J**

The proposed Attachment J to the OATT Terms and Conditions has two sections. The first section deals with planning for forecast load growth and new forecast network resources of Network Customers. The second part deals with release of unused capacity reserved for a Network Customer. The 1998 WTS Tariff did not include a provision for rules such as Attachment J. Further, there are only two transmission entities in North America that have something comparable to Attachment J – the Mid West ISO and the New England ISO (T5: 330-331).

BCTC states that the proposed Attachment J is required and designed to strike a balance that is reflective of the FERC's balance between the Transmission Provider's obligation to plan to meet the forecast Network Load and to consider the rights of other firm service customers. It is intended to make the OATT more open and transparent and to set out the rules that are to be applied to both the Network Customer and other transmission customers. Specifically, Attachment J is designed to meet the

following specific objectives:

- to clarify BCTC's duty to plan and build the transmission system to meet the Network Customers' reasonable forecast network loads and forecast network resources (FNR's);
- to clarify the circumstances under which it is appropriate to limit the roll-over rights of PTP service customers;
- to ensure that PTP customers do not have roll-over rights inordinately withheld and to clarify how those rights are to be accommodated;
- to clarify the queue reservation priority that attaches to load forecasts and FNR's;
- to stipulate the conditions for release of unused capacity reserved for the Network Customer; and
- to address what studies are required for the planning process and how the costs of network upgrades will be recovered (BCTC Argument, pp. 15-16, para. 39-43; T12: 1760).

When asked to explain what triggered the creation of Attachment J, BCTC described a confluence of events such as the separation of BC Hydro and BCTC, a more rigorous process undertaken by BC Hydro for implementing its NITS Applications and service requests, the increased use of a competitive energy acquisition process by BC Hydro and the provisions of the Energy Plan. In other words, Attachment J is required to accommodate the new structure in which BC Hydro is interacting with IPPs and other customers (T5: 333).

BC Hydro acknowledges that the issues BCTC addresses in the proposed Attachment J are very important to BC Hydro and its customers, particularly now that BCTC independently operates and plans the transmission system. Thus, BC Hydro agrees that many of those issues would benefit from the clarification provided by a document such as Attachment J. However, BC Hydro argues that the proposal does not meet BC Hydro's needs and that it should not be approved until it does (BC Hydro Argument, pp. 19-20).

BC Hydro contends that a Network Customer should be able to provide BCTC with a forecast for how customers will be supplied in a long-term plan (10+ years), including contingencies, and that the

Network Customer should be able to make the transmission reservation that enables those plans.

BC Hydro submits that the proposed OATT does not provide any certainty to BC Hydro that its planned supply contingencies and alternative load forecasts are feasible from a transmission service perspective. BC Hydro submits that it can bring a new power plant on in a three-year timeframe whereas construction of a new transmission line can take from six to ten years. In BC Hydro's view, such timing differences between new generator projects and transmission capacity justify the requirement to reserve transmission capacity for multiple contingency plans (Exhibit B2-9, p. 3; T9: 1210-1211).

BC Hydro explains that it uses information from its Electric Load Forecast, Integrated Electricity Plan, Resource Expenditure and Acquisition Plan, and its resource acquisition process to form the basis for its NITS application and annual forecast service request. BC Hydro would develop multiple contingency plans to accommodate changes in load forecasts and resource options consistent with Sections 5 and 7 of the BCUC Resource Planning Guidelines issued in December 2003. BC Hydro notes that the Commission will be able to review BC Hydro's contingency plans in BC Hydro's REAP applications. BC Hydro expects that the only time BCTC would incur costs for a BC Hydro requested contingency would be when it has been approved by the Commission in a REAP application (Exhibit B2-9, p. 3; BC Hydro Argument, pp. 20-21).

BCTC argues that reserving existing and future transmission capacity for mutually exclusive resource plans is unreasonable. BCTC offers to study multiple load forecasts and resource plans at the Network Customer's request but demands that BC Hydro must specify a single forecast and resource portfolio for the NITS Agreement. BCTC submits that with mutually exclusive contingency plans, BC Hydro could reserve capacity to meet the same forecast Network Load from several regions at the same time and unnecessarily tie up the capacity throughout the system. Therefore, in BCTC's view there would be insufficient capacity to offer long-term transmission service to other customers with roll-over rights guaranteeing service into the future. BCTC argues that, instead, it would be required to limit roll-over rights in the first service agreement to new LTF PTP customers (BCTC Argument, pp. 19-20, para. 49-53).

BC Hydro maintains that in view of the Resource Planning Guidelines, supply options that include potential supply greater than forecasted load in order to accommodate future supply and load uncertainty will by their very nature be mutually exclusive (BC Hydro Argument, p. 21). BC Hydro further asserts that while the issues addressed in the proposed Attachment J are important they need not be resolved prior to BC Hydro's next NITS application. It is optimistic that resolution between BC Hydro and BCTC could be achieved by that time (BC Hydro Argument, pp. 21-22).

BCTC argues that the NITS Application is irrelevant to the issues highlighted in Attachment J, and that the resolution of Attachment J need not be delayed. BCTC submits that the proposed Attachment J to the OATT contemplates the reservation of transmission capacity to meet reasonable load growth beyond the terms of the existing NITS service agreement through the submission of reasonable 10-year load forecasts and reasonable resource plans to meet that load growth. BCTC argues that it is designed to accommodate these forecasts when determining whether to restrict the roll-over rights of a PTP customer in the forecast ten-year period (BCTC Reply Submission p. 6- 7, para. 15-16).

TCE supports BCTC's proposal that the Network Customer must specify a single resource plan for the purposes of transmission planning in order to meet forecast network loads and forecast network resources. TCE agrees with BCTC that BC Hydro's suggestion of filing mutually exclusive resource plans is unreasonable. In reality, only a single outcome can require a specific level of network resources to meet network load (TCE Argument, p. 14).

### Commission Determination

The Commission Panel acknowledges the importance of the Resource Planning Guidelines, which require development of multiple resource portfolios and an action plan. For each gross demand forecast, several plausible resource portfolios should be developed, each consisting of a combination of supply and demand resources needed to meet the gross demand forecast. The action plan should include a contingency plan that specifies how the utility would respond to changed circumstances, such as changes in loads, market conditions or technology and resource options. For example, in its latest REAP, filed with the Commission on March 7, 2005, BC Hydro included contingency plans for Vancouver Island, accessing wind and large hydro projects in the northern part of the province and other

alternative resource plans. A contingency plan for scheduling transmission was also included.

BC Hydro intends to file a four-year REAP, updated on an annual basis, and a twenty-year IEP updated on a bi-annual basis. Load forecasts will be filed with the BCUC in connection with Revenue Requirement and REAP applications. Load forecasts include a reference load as well as high and low case scenarios. Specific contingencies, on the other hand, relate to the resource plans filed with a REAP application for the Commission's considerations.

The relatively formative stage of the REAP regulatory review process, in combination with the lengthy debate surrounding the contingency plans during the OATT proceeding highlights the importance of linking the REAP review to the transmission planning process and obligations of BCTC. When the Commission approves contingencies for REAP applications it must be cognizant of and sensitive to the impact its approval may have on the ability of other customers to secure long term firm capacity on the transmission system.

In the view of the Commission Panel, Attachment J appropriately reflects the spirit of the policy framework set out as a foundation for the OATT. An open access tariff must be transparent and clearly stipulate the rules for network and other customers. Nevertheless, the Commission Panel finds that Attachment J should be refined in order to achieve the appropriate balance between the Transmission Provider's obligation to plan to meet the forecast Network Load and the need to take into account the service requests and roll-over rights of other firm service customers.

**Within the above context, the Commission Panel orders BCTC to amend the proposed Attachment J to include an allowance for contingency plans of Network Customers. However, these transmission reservation contingencies should be limited to load forecasts and resource plan contingencies approved by the Commission. Subject to the amendment to allow BCUC approved contingencies, the Commission Panel approves Attachment J.**

The Commission Panel finds that it is unfortunate that BCTC and BC Hydro were unable to bring forward a joint proposal that duly considers the interests of other customers. The Commission Panel recognizes that the Commission's role in overseeing the relatively new REAP regulatory review process may become a critical part of a successful and well functioning Attachment J approach. **Accordingly, the Commission Panel directs that Attachment J be reviewed after completion of the next two 12-month cycles described in Attachment J, which commence with the Annual Load and Resource Information Updates in accordance with Section 31.6 of the OATT. BCTC is to file a status report within three months of completion of the second 12-month cycle.**

### 3.4 Network Economy

Network Economy refers to secondary transmission service available to the Network Customer under Section 28.4 of the proposed OATT, which states:

The Network Customer may use the transmission provider's Transmission system to deliver energy to its Network Loads from resources that have not been designated as Network Resources. Such energy shall be transmitted, on an as-available basis, at no additional charge. Deliveries from resources other than Network Resources will have a higher priority than any Non-Firm Point to Point Transmission Service under Part II of the Tariff.

AESO raised the issue of Network Economy, having concerns about both the availability of the service and potential abuse of the service. This section of the Decision addresses issues regarding the availability of Network Economy in the OATT. Issues associated with possible misuse of Network Economy are addressed in Section 11: Tariff Enforcement, Monitoring and Reporting.

AESO makes the following assertions about Network Economy (Exhibit C9-5, pp. 18-23):

- Network Economy provides a flexible means to allow the Network Customer to access non-designated supplies without acquiring PTP service;
- A Network Customer could acquire the same service under a non-firm PTP arrangement and receive the same service from and to the same points covered by PTP services;

- BC Hydro, as the only Network Customer, would not incur additional costs if Network Economy service was not offered because there would be an offsetting reduction to the NITS revenue requirement from its purchase of PTP service;
- Network Economy receives a higher priority than other non-firm services, to the detriment of other holders of non-firm PTP capacity if they are bumped off the system;
- BC Hydro has used Network Economy while simultaneously selling on another intertie, bumping holders on non-firm transmission;
- The priority of Network Economy discourages participation by competitors in non-firm transactions; and
- While the risks associated with bumping and competition could be avoided with the purchase of firm transmission service, firm service is more costly and, in this context, runs counter to the intention of non-firm service to permit economic and efficient use of the system that may otherwise remain underutilized.

AESO is of the view that there is no reasonable justification for Network Economy priority to remain in BCTC's proposed OATT. AESO says that other options may exist to restrict the use of Network Economy to limited and specific circumstances, but they would likely create an unnecessary administrative and regulatory burden (Exhibit C9-5, p. 23).

BCTC states that Network Economy is not a separate service, but rather is an important attribute of NITS, with a carefully considered priority over non-firm PTP transmission service. BCTC notes that the condition in Section 14.7 of the proposed OATT, under which non-firm transmission service may be interrupted for "iv) transmission service for Network Customers from non-designated resources", remains unchanged from the FERC Order No. 888 Pro Forma tariff. BCTC is of the view that Network Economy is an important element of the balance contained in the OATT, stating in support that it is compelled by the FERC's consideration of the priority of Network Economy over non-firm service. The FERC concluded, in part, that:

- Network transmission customers are obliged to pay all the costs of the transmission system without regard to the resources from which energy is scheduled and it is therefore appropriate that transmission associated with a Network Customers economy purchases enjoy a higher priority than non-firm PTP service; and

- Non-firm PTP customers pay for non-firm service as their service, provided on an interruptible basis, while firm service is available as an option to the extent such customers wish to obtain service that cannot be interrupted to accommodate other transactions (BCTC Argument, pp. 24-25, para. 64-67).

BCTC argues that AESO's concerns about the existence of Network Economy must be separated from concerns about its use. BCTC submits that the availability of Network Economy is fundamental and should be preserved. It states that "where Network Economy is used improperly, and contrary to section 28.6 of the proposed OATT, the issue is one of tariff enforcement, not tariff design" (BCTC Argument, pp. 25-26, para. 68).

BC Hydro endorses the arguments of BCTC with one exception. BC Hydro states that BCTC's reference to the improper use of Network Economy is imprecise and potentially misleading. Rather, BC Hydro is of the view that where the use of Network Economy is contrary to Section 28.6 of the OATT, the issue is one of tariff enforcement, not tariff design.

The JIESC supports the positions of BCTC and BC Hydro on the continuation of Network Economy and its current priority, also considering it an important part of the OATT. The JIESC submits that to eliminate Network Economy would fail to recognize the commitment and rates paid by NITS customers, which would be unfair and inappropriate. The JIESC states that if customers want firm service they should contract for it (JIESC Argument, p. 15).

TCE believes that it would be reasonable to curtail some non-firm service if the Network Customer needs to respond to emergencies. However, it submits that it is a different situation if the Network Customer is using Network Economy to bump customers that have reserved non-firm capacity and booked transactions between the US market and the Alberta market. It submits that contracting for firm service is not the solution to this uncertainty, in part due to the high cost of pancaking firm tariffs across jurisdictions. TCE supports the AESO proposal to restrict the priority status of Network Economy. It would also be supportive of an option that would allow use of Network Economy in limited circumstances, such as emergencies (TCE Argument, pp. 7-8).

AESO states that its concerns regarding Network Economy escalated over the course of the proceeding. It has serious concerns about misuse of the tariff and BCTC's ability to enforce it. It is also concerned about the potential of unused Network Economy to block access to third parties (AESO Argument, p. 21).

AESO reiterates in argument that its main concern is the higher priority afforded Network Economy over non-firm services, and the problems of bumping and competitive access associated with this priority. AESO states that this concern remains despite BCTC's 1999 Rule (Exhibit B1-29) requiring that if BC Hydro has reserved Network Economy on the US intertie and it is exporting to Alberta, it must also have a PTP reservation equal to the amount being exported to Alberta. AESO argues that the 1999 Rule can exacerbate the problem if it results in no firm capacity available on the US intertie for competitors to protect themselves from being bumped by Network Economy. AESO summarizes that BCTC prepared the 1999 Rule as an interpretation of Section 28.4 and 28.6 of the WTS and the proposed OATT, noting that Section 28.6 limits the use of Network Economy to serve only Network Load. AESO submits that the evidence highlights the extent of non-compliance with the intent of Network Economy and the 1999 Rule and the degree to which Network Economy was unused in circumstances where trade potential existed at full rates (AESO Argument, pp. 20-25). AESO states that the evidence demonstrates that a high degree of uncertainty exists as to whether BCTC can prescriptively enforce the terms and conditions associated with Network Economy (AESO Argument, p. 29).

AESO characterizes BCTC's rationale about the importance of retaining Network Economy as suggesting that eliminating Network Economy would run afoul of the FERC Order No. 888 Pro Forma tariff, would create seams, and would improperly diminish or distort the balance in the rights of the Network Customer. AESO argues that BCTC's argument is weakened by the fact that BCTC has not opposed all changes to the FERC Order No. 888 Pro Forma tariff. With respect to seams, AESO submits that it is unclear how eliminating Network Economy in the OATT would disadvantage US jurisdictions where Network Economy provisions remain in force. While AESO understands that eliminating Network Economy would reduce the rights of the Network Customer under the tariff, it submits that this does not necessarily create an imbalance or undue discrimination. AESO submits that given the circumstances in BC, the elimination of Network Economy would result in the partial

mitigation of undue preferences afforded BC Hydro and would help restore balance in the tariff (AESO Argument, pp. 25-28).

AESO submits that the suggestion to purchase firm service as a means to address the problem of bumping would force customers to forego the competitive advantages of non-firm PTP service, which it contends confirms the advantage enjoyed by BC Hydro. AESO states that it is inappropriate to force parties to use services they are not seeking (AESO Argument, p. 31).

In conclusion, AESO considers the effectiveness of the 1999 Rule a failure, noting its view that it is not transparent, enforceable, or effective. AESO is also of the view that eliminating Network Economy would not affect BC Hydro's ability to serve native load as BC Hydro could simply use PTP service like any other customer. AESO maintains that Network Economy should be eliminated (AESO Argument, pp. 32-33).

BCTC maintains its position that Network Economy is an important attribute under the FERC Order No. 888 Pro Forma tariff, promoting efficient use of a large number of integrated resources. BCTC notes that the FERC provided flexibility to both Network and PTP customers in FERC Order No. 888: Network Customers were entitled to economy purchases from non-designated resources and PTP customers were entitled to schedule on a non-firm basis from secondary receipt and delivery points (BCTC Reply Argument, pp. 15-16, para. 37).

In response to the submissions of both TCE and AESO, BCTC reiterates that firm service is more expensive than non-firm service precisely because of the greater reliability of firm service and the interruptible nature of non-firm service. BCTC says that if Alberta participants want the benefits of firm service, they should pay for them and make a fair contribution to system costs. BCTC asserts that potential abuse of Network Economy should be addressed through reporting and enforcement, not by eliminating an attribute of transmission service that is integral to the use of the system by Network Customers (BCTC Reply Argument, pp. 18-19, para. 43-45).

### Commission Determination

As noted above, this section of the Decision only addresses issues associated with the availability of Network Economy in the OATT, not issues associated with possible misuse of Network Economy. BCTC has proposed enforcement measures that it submits would permit proper evaluation of the concerns raised. The Commission Panel considers these matters in Section 11: Tariff Enforcement, Monitoring and Reporting.

The Commission Panel accepts that the provision of Network Economy represents an acceptable balance of interests in the OATT. Network Customers backstop the transmission revenue requirement and are reasonably entitled to the priority over non-firm service that Network Economy provides. Network Economy provides an important secondary service allowing Network Customers to deliver energy to Network loads from non-designated resources. The Commission Panel believes that proper monitoring and enforcement of Network Economy will uphold the attributes of the service without compromising the efficient utilization of the transmission system and the flexibility of PTP customers to secure firm or non-firm service according to their needs.

**The Commission Panel denies the AESO request to eliminate the provision of Network Economy in the OATT.**

### **3.5 Network Customer Use of PTP Service**

AESO submits that the OATT allows the Network Customer and its affiliates (i.e. BC Hydro and Powerex) to utilize PTP service in a manner that gives it an undue competitive advantage relative to other PTP customers. AESO highlights its concerns about the Network Customer's use of PTP service with submissions on Receipt and Delivery Point Flexibility and the "Free Option". AESO proposes a restriction on the use of PTP services by the Network Customer to mitigate its concerns.

### Receipt and Delivery Point Flexibility

AESO describes Receipt and Delivery Point Flexibility as the ability of the Network Customer, in this case BC Hydro, to designate PORs and PODs on the transmission system in a manner not available to PTP customers, allowing the Network Customer to engage in activities referred to as “parking” and “hubbing” (Exhibit C9-5, p. 7). AESO defines parking as the reservation of PTP service using the Network Load POD to purchase energy which it intends to sell but where no buyer, at the time of the reservation, has been identified. The energy notionally reduces Network Load. When a buyer is available, the Network Customer completes the sale by delivering the energy from freed-up generation at a generation POR to the buyer’s POD (Exhibit C9-5, pp. 7-8).

Hubbing, as described by AESO, occurs when the Network Customer, by creating a hub with its Network Load to efficiently organize purchases and sales, reserves PTP transmission to purchase energy from multiple sellers to sell to multiple buyers (Exhibit C9-5, p. 8).

AESO states that hubbing and parking has occurred in BC and submits that in principle the provision of receipt and delivery point flexibility is inappropriate in an OATT because it provides the Network Customer with flexibility not available to PTP-only customers and allows the Network Customer to gain a competitive advantage (Exhibit C9-5, pp. 8-9). The AESO also notes the FERC is concerned that differences in flexibility between the two types of tariff services results in undue preferences. It notes that the FERC intends to create a single transmission service so that all transmission customers can park, hub, or “...exercise equal creativity and flexibility in structuring transactions and serving customers” (AESO Argument, p. 10; Exhibit C9-2, Attachment A, p. 11).

TCE also argues that the ability of the Network Customer to park and hub confers an unwarranted competitive advantage to the Network Customer (TCE Argument, p. 4).

BCTC notes that it retained the OATT features that allow for parking and hubbing from the FERC Order No. 888 Pro Forma tariff. BCTC submits that it elected to retain these features because the Pro Forma tariff remains the industry standard in the Pacific Northwest, because it would reduce seams with BC’s major trading partners, and because “...the flexibility provided by NITS service is a reasonable benefit

attached to this service, given that NITS customers “backstop” the entire Transmission Revenue Requirement.” (Exhibit B1-6, BCTC Response to AESO IR 2 3.3) With respect to the FERC concerns pointed out by AESO, BCTC testified that in BC PTP is predominantly bought for inter-control area transactions; FERC’s concerns are not particularly significant in this context (T6: 533). BCTC also argues that FERC’s concerns are predicated on a situation where a PTP customer is required to reserve transmission for a complete transaction; that is, from an actual generator to an actual power-consuming load, and that such a requirement does not exist in the OATT (Exhibit C9-2, Attachment A, p. 9; BCTC Reply Argument, p. 14, para. 32).

BCTC testified that parking and hubbing could occur in any control area and that the ability to park and hub was a function of having generation or load to adjust to accommodate the transaction (T6: 544). BCTC considers the issue to be one arising out of reliability concerns – the requirement that “...any energy transaction has to be delivered to a sink, meaning a control area, a reliability entity” – not the terms of the tariff. BCTC further submits that parking and hubbing was not brought forward as an issue in any of its consultation sessions (T6: 533-34).

### Free Option

AESO uses the term “Free Option” to describe its notion of a benefit afforded BCTC’s Network Customer through its ability to acquire PTP service at no net cost. That is, the Network Customer backstops the TRR net of all PTP revenues (as discussed in Section 3.1), so the purchase of PTP service by the Network Customer just results in an equal and offsetting reduction to the TRR. AESO is concerned that this dynamic offers a competitive advantage to the Network Customer by allowing it to over-consume PTP service, reducing access to PTP service for other customers (Exhibit C9-5, pp. 10-11). Further, AESO asserts that the Free Option allows the Network Customer to exert its influence over the roll-over provisions for PTP service in order to retain transmission capacity. AESO presents a variety of evidence on the historical use of PTP service to demonstrate that BC Hydro has used the Free Option. AESO proposes that the most appropriate tariff-based option to eliminate the Free Option

(under the continuation of a single Network Customer model) would be to restrict the Network Customer's ability to acquire PTP service (Exhibit C9-5, p. 17).

BCTC submits that the Network Customer's so-called Free Option is not free. BCTC is of the view that there is an opportunity cost associated with the Free Option if the Network Customer absorbs transmission that other customers would otherwise use. BCTC argues that if a Network Customer reserved PTP service to the exclusion of other customers, it would impose a real cost on itself to the extent such capacity was unused and resulted in lost or foregone revenue from other customers (BCTC Argument, p. 26, para. 69).

TCE argues that the Network Customer is clearly advantaged by being able to acquire PTP service at no net cost. It submits that the opportunity cost of foregone revenues is only meaningful if the non-network PTP customer can commit to transactions that could not have been achieved by the Network Customer.

AESO maintains the Free Option is free; BCTC has confirmed that BC Hydro has the option to acquire PTP service at no net cost because it receives a dollar for dollar credit to its NITS charges for each dollar spent on PTP services. On this basis, AESO makes the distinction that a third party PTP customer will assess the benefit and cost of acquiring PTP service, while the Network Customer bases its decision to acquire PTP service on assessing the incremental benefit of PTP service (AESO Argument, p. 15). AESO elaborates in this context that there is no opportunity cost to the Network Customer because it is able to assess the incremental benefit of its purchase of PTP service relative to potential foregone third party PTP revenues (AESO Argument, p. 16). AESO contends that the Free Option confers access to transmission facilities in BC to BC Hydro in the same manner as contracts or exclusive ownership. AESO submits that the Commission will need to consider seriously how these circumstances can facilitate open and competitive access to wholesale electric markets. The Free Option renders the OATT discriminatory and requires amendments to ensure a level playing field (AESO Argument, p. 20).

BCTC maintains the Free Option is not free; the Network Customer either pays the entire TRR if it is the only PTP customer, its NITS charges increase if it results in lost revenue from the displacement of

another PTP customer's reservation, or it pays for an uncongested line via its load ratio share revenue obligation. BCTC argues that AESO's argument regarding opportunity cost recognizes that the option is not free. BCTC states that the Network Customer's choice between the benefit of PTP service and the benefit of third party contribution to NITS demonstrates the real economic cost to the Network Customer of over-consuming PTP service insofar as choosing PTP service foregoes the benefit of third party use (BCTC Reply Argument, pp. 19-20, para. 46-48).

### Proposed Restriction

AESO envisions that its restriction on the Network Customer's ability to acquire PTP service would operate based on the following parameters (Exhibit C9-6, Response to BCUC IR 2.3 and 4.2):

- One-half of the available transfer capacity of the Alberta-BC interconnection (both directions) should be set aside for reservation by PTP customers other than the Network Customer and its affiliates.
- An amount of capacity on the BC-US interconnection (both directions) should be set aside for reservation by PTP customers other than the Network Customer and its affiliates. The amounts set aside on the BC-US interconnection should be equal to the amounts set aside on the Alberta-BC interconnections.
- Near the time of delivery, the Network Customer and its affiliate should be able to reserve and use any of the amounts set aside for PTP customers, which remain unreserved.

AESO states that its suggested restriction would not entirely remove the competitive advantage of the Network Customer as it would have no effect on the Network Customer's ability to reserve and use about 83 percent to 88 percent of the available export capacity from BC (Exhibit C9-6, Response to BCUC IR 2.3).

BCTC argues that there is no rational basis to restrict the Network Customer's use of PTP service and that determining allocations arbitrarily or by rule is less efficient than allowing parties to purchase rights based on their willingness and desire to do so. BCTC notes that participants in Alberta could avoid

being bumped by making a firm reservation whereas the restriction advocated by AESO would effectively provide such participants with firm service through BC without paying for it and making an appropriate contribution to system costs (BCTC Argument, pp. 26-27, para. 70-73).

BC Hydro argues that AESO's proposed restriction is inconsistent with the Commission's role to balance the interests of all the OATT customers, is little more than an effort to transfer the benefits of BC's hydroelectric system to Albertans, and does not address the fundamental issues that would have to be resolved before it could be implemented. Further, BC Hydro submits that AESO has not met an onus to demonstrate that its proposed restriction would not have an adverse impact on BC Hydro's ability to earn trade revenues. BC Hydro notes that AESO accepts that its proposed restriction could cost BC Hydro ratepayers as much as \$5 million. BC Hydro estimates that the financial impact of AESO's proposal on BC Hydro could be in the order of \$25 million per year (BC Hydro Argument, pp. 36-46).

CPC argues that even if parking and hubbing and the Free Option are found to be legitimate concerns, the Commission should not accept the AESO suggestion to impose arbitrary restrictions on BC Hydro and/or Powerex access to LTF PTP service (CPC Argument, p. 5). The CEC agrees with the BCTC argument and further argues that it appears that the AESO is asking for a reserved limit into and through the BC system without having to pay for it (CEC Argument, p. 10).

TCE submits that AESO's proposed restriction should actually encourage new entrants to participate in the market by making IPPs more price competitive and reducing the likelihood that an IPP would be unable to deliver on its contract for power. TCE submits that the restriction would foster a liquid, competitive and fair market, and only to the extent that such a market results could the restriction be viewed as a barrier to economic efficiency (TCE Argument, pp. 9-11).

AESO states that its proposed restriction would only restrict roughly 20% of BC Hydro's ability to reserve and use available export capacity and therefore it appropriately balances BC Hydro's obligations to serve Network Load. AESO argues that the purpose of its proposed restriction is not to improve efficiency, but rather to remedy discrimination and improve competition (AESO Argument, pp. 33-38).

BCTC submits that the proposed restriction is inefficient and unfair: inefficient because it will result in the completion of lower margin transactions at the expense of potentially higher ones; and unfair to BC Hydro customers who will pay the embedded cost associated with the transmission set aside. BCTC argues that implementing AESO's proposed restriction without requiring PTP customers to have a "backstop" payment obligation will cause a significant shift in transmission rights and cost responsibility among transmission users. BCTC concludes that the issue is not one of open access; access to transmission service is always available for those who are willing to pay, such as through the purchase of firm PTP. BCTC submits that the prospect for Alberta market participants, that the cost of firm transmission is prohibitive when compared to their margins from trade and risk of interruption in Alberta, is a function of their trade economics rather than BCTC's tariff (BCTC Reply Argument, pp. 21-23).

#### Commission Determination

The Commission Panel accepts the submission of BCTC that it is the ability to manage generating resources and load within a control area, rather than receipt and delivery point flexibility, which creates the ability to park and hub. The Commission Panel also accepts the BCTC argument that the concerns raised by the FERC are not significant in the context of the OATT. Therefore, the Commission Panel is not persuaded that the existence of receipt and delivery point flexibility in the tariff creates the undue preference that the AESO and TCE submit that it does.

The Commission Panel is not persuaded by the views of AESO and TCE that a Free Option exists and renders the OATT discriminatory. The Commission Panel concludes that there is a real opportunity cost associated with the Network Customer's use of PTP service and that this provides an effective discipline on the economic decisions of the Network Customer to purchase such services.

**Given the Commission Panel's findings on Receipt and Delivery Point Flexibility and the Free Option, the Commission Panel denies AESO's proposed restriction as unwarranted.**

## 4.0 LONG TERM FIRM POINT TO POINT SERVICE

### 4.1 Rate Design

BCTC proposes to replace the existing path specific LTF PTP Rate with a postage stamp access fee (Exhibit B1-1, p. 38). In addition to the postage stamp fee, the new LTF PTP rate structure includes a Deferral Credit, which is addressed in Section 4.2 below.

BCTC's rationale for its proposed move to a postage stamp rate with a Deferral Credit is twofold. First, the postage stamp form is better aligned with the industry standard as it is consistent with the FERC Order No. 888 Pro Forma tariff (Exhibit B1-1, pp. 35, 38). Second, BCTC submits that replacing the LRIC component of the existing path specific rate with the proposed Deferral Credit more efficiently accomplishes the objective of providing locational price signals (BCTC Argument, p. 50, para. 139).

The proposed monthly \$/kW charge that appears in the proposed OATT on Schedule 01 in Attachment L for LTF PTP service is derived by dividing the Net Transmission Revenue Requirement by the total installed generation capacity on the system multiplied by 12. The Net TRR is equal to the TRR less expected supplemental revenues from Scheduling and Dispatch Services, and engineering services (Exhibit B1-1, pp. 38-40). The denominator represents an estimate of the 12 monthly non-coincident peak demands at the PORs (Exhibit B1-4, BCUC IR 11.2).

The methodology used to derive the rate proposed by BCTC is consistent with that approved for the basic WTS LT PTP rate (Exhibit B1-4, BCUC IR 11.1), and is not based on an allocated revenue requirement *per se* (T8: 880; BCTC Argument, pp. 10-11). Rather, it is a proxy calculation intended by BCTC to produce a simple, fair and efficient outcome, and one that does not raise the rate relative to the previously approved WTS rate. BCTC indicates that changing the calculation in a manner that would cause an increase to the rate would not meet its ratemaking objective of increasing utilization of the system (T8: 875-877). There was also a lack of interest in changing the methodology relative to the existing WTS Tariff during BCTC's pre-filing consultations (T8: 877; Exhibit B1-4, BCUC IR 11.2). CPC submits that the proposed LT PTP rate is too high, particularly for low capacity factor users, and

that one way to reduce it would be to offset the TRR by a portion of the ST PTP forecast revenue prior to calculating the rate (Exhibit C10-3, p. 13; CPC Argument, p.6). Specifically, the ST PTP forecast revenue should be allocated between the NITS and LT PTP forecast revenues on the basis of capacity contracted for but not utilized (T11: 1639).

The Commission Panel notes that BCTC describes the transmission system as designed not only to meet a single peak demand, but to meet various peaks spread over a year. To reflect this in a rate, an on-peak energy charge could be used instead of a demand charge. Incorporating an energy charge in the rate could also make it more favourable to low capacity factor users (T8: 930-933). BCTC acknowledges other jurisdictions' transmission rates comprise energy charges (T6: 442), and believes such a rate structure would be compliant with the FERC Order No. 888 Pro Forma tariff (T8: 933).

The JIESC proposes that the 'allocation' to the PTP rate should be determined on a coincident peak basis, as this would be representative of the customer's contribution to the peak load, which is the driver of system costs, and the resultant rate would thus be reflective of cost causation (JIESC Argument, p. 9). The Commission Panel understands from JIESC's evidence that by 'allocation' it means the selection of the denominator, or what the TRR is divided by to calculate the \$/kW charge for the rate (Exhibit C13-6, pp. 10-11).

BCTC's proposal can also be viewed as notionally allocating 100 percent of the TRR to a virtual rate class containing all generators on the system that will use point to point service. (This is similar to BCTC's description at T8: 1023-1024, and as noted in its response to BCUC IR 10.1 in Exhibit B1-4). The Commission Panel notes that, if the system was built to meet, for example, a single coincident peak demand, then the allocation factor could be said to be the single coincident peak demand. To derive the rate, that allocated cost is divided by the forecast billing determinants, for which total installed capacity is a proxy.

The billing determinant used to calculate a customer's bill on the PTP rate is the 'Reserved Capacity Billing Demand' (Exhibit B1-1, Appendix A, Attachment L, Schedule 01). Since the denominator used to derive the rate is not the same as the billing determinant the rate is multiplied by for billing purposes,

the Commission Panel notes that under both BCTC's and the JIESC's proposals, the revenue generated by the rate would not be equal to a target allocated cost. BCTC confirmed its proposed LT PTP rate is not intended to reflect a predetermined cost allocation, as already noted above (T8: 880). The JIESC understands this to be the case as well, and appears not to take issue with it (Exhibit C13-7, BCUC IR 4).

### Commission Determination

The Commission Panel finds that the main objective of the LT PTP rate should be to provide an appropriate price signal to encourage utilization, while requiring PTP users to make a fair contribution to system costs such that all users of the system benefit. On the premise this Application comprises only a 'tune up' of the tariff (T8: 967), the Commission Panel agrees the proposed method meets this objective.

Cost allocation to a rate class as determined by a properly considered cost of service study generally provides an important (and quite often the most important) criterion in rate design. However, given there are very few PTP users at this time, the Commission Panel considers it is not practical or even possible to approach the setting of the LT PTP rate in this manner for the purposes of the OATT in this proceeding. It follows that it is reasonable to use a simple proxy to set the LT PTP rate, such as that proposed by BCTC and previously approved as part of the WTS Tariff. The Commission Panel is of the opinion that the proposed method results in a rate that is nevertheless not out of step with one that would result from a more traditional cost based approach, with a view to a notional allocation of 100 percent of the TRR to all generators on the transmission system, as described above. Notwithstanding that the installed capacity used in the denominator is not necessarily equal to the Reserved Capacity used to bill the customer on the rate (T8: 877), they are both measures of non-coincident demand. In the context of a proxy method, the Commission Panel therefore considers the use of installed capacity to be practical and reasonable.

In respect of the JIESC's submission that the rate should be calculated by dividing the Net TRR by a measure of coincident demand, the Commission Panel notes the following. The last step in calculating a

rate (i.e. dividing by billing determinants) is not indicative of the method in which the costs were or should be allocated. So, even if the system is built to meet a coincident demand that in itself does not support the conclusion that the Net TRR should be divided by coincident demand to derive the rate. Thus, the Commission Panel rejects the argument that the use of a coincident peak demand as the denominator in the LTF PTP rate calculation is more reflective of cost causation, as it is neither accurate nor particularly relevant in this context.

Having accepted the proposed method for the LTF PTP rate (which, again, can be thought of as a notional allocation of 100 percent of the Net TRR to generators), the Commission Panel further determines that reducing the Net TRR by ST PTP forecast revenues, as suggested by CPC, would be inconsistent with the concept. Moreover, it is counter to the Commission determination in respect of the NITS rate in Section 3.1.

The Commission Panel also notes that the LTF PTP rate is among the highest in the region (T8: 1044, BCTC Argument, p. 11), and that there is currently limited LTF PTP use (T8: 1045). Like BCTC, the Commission is not convinced a change to the calculation method that increases the rate is warranted at this time. As noted above, the objective of this rate centers around increasing utilization of the existing system to the benefit of all users. The Commission Panel accepts that the proposed LTF PTP rate is consistent with this objective.

**The Commission Panel approves the proposed method for setting the LTF PTP rate.**

Even so, the Commission Panel notes it may be desirable to refine the LTF PTP rate in the future, with consideration to the evidence in this proceeding including for example, that the system is built to meet a range of peak demands, and that the rate appears to be objectionably high to some low capacity factor users (including many clean resources, discussed in Section 4.4 below). **Accordingly, the Commission Panel directs BCTC to undertake a study and review the options for more fundamental changes to its rate design for the December 2006 report discussed in Section 14. In particular, the report should discuss alternative forms of PTP rates that could further enhance utilization of the transmission system while still reflecting a degree of cost causality.**

## 4.2 Deferral Credit

### Introduction

BCTC seeks approval for a Deferral Credit that provides an incentive to new generation projects that defer transmission projects. The Deferral Credit methodology is specified in Attachment N to the OATT (Exhibit B1-1, Appendix A). The Commission Panel notes the need for efficient price signals for new generation projects and also notes that most Intervenors support the stated purpose of the Deferral Credit proposal. There are, however, differing views amongst the Intervenors and the Applicant with respect to the design of the Deferral Credit.

### BCTC's Proposal for Efficient Location-specific Price Signals

BCTC proposes that postage stamp rates and the Deferral Credit replace the path specific rates in the existing WTS Tariff (Exhibit B1-1, p. 26). The path specific rates under the WTS Tariff were intended to provide locationally efficient price signals, reflective of long run incremental costs of congestion over 10 years (Exhibit B1-1, p. 36). However, BCTC submits the path specific rates provided price signals that were not strong enough nor sufficiently specific to the transmission benefits that arise from the efficient siting of generation (Exhibit B1-4, BCUC IR 1 14.6 and 1 14.7). In this regard, the proposed Deferral Credit is expected to provide a stronger and more efficient price signal than the existing WTS Tariff (BCTC Argument, p. 51, para. 141). BCTC proposes only new generation will be eligible for the Deferral Credit (Exhibit B1-4, BCUC IR 1 12.5).

The proposed Deferral Credit is one half of the difference between the net present value of the cost of transmission expansion plans in the System Plan with and without the new generator's PTP reservation; the remaining benefits would accrue to all other long term transmission customers (Exhibit B1-1, p. 43). The Deferral Credit is also characterized as a measure of capital costs "before" and "after" the new generator, using BCTC's capital plan as the baseline (BCTC Argument, p. 50, para. 139). Because the amount of the Deferral Credit is based on the deferral of planned capital projects, the Deferral Credit is calculated over the term of the Dispatch Option agreement with the new generator or the planning horizon of BCTC's capital plan, whichever is shorter (Exhibit B1-1, Attachment N).

There is general support amongst the Intervenor for the change to postage stamp transmission rates and the location-specific aspects of the Deferral Credit. Notwithstanding, CPC submits that efficient location of new generation should not be addressed through a deferral credit but more appropriately through fundamental changes in BCTC's proposed postage stamp rates and postage stamp losses (CPC Argument, p. 11).

CEC has concerns with respect to the Deferral Credit in regard to the base case on which it is calculated (CEC Argument, p. 8). The term of BC Hydro's NITS Service Agreement for domestic load is 10 years. The length of the contract impacts BCTC's planning process and will influence the composition of the base case facilities in the study of subsequent service requests (Exhibit B1-11, BCUC IR 3 19.0). CEC recommends the Commission approve the Deferral Credit with the added provision that the base case in the Capital Plan be adjusted to remove any planning contingencies provided for in BC Hydro's forecasts to avoid providing an inappropriate benefit (CEC Argument, p. 8). At this time, the Commission Panel does not accept CEC's proposed adjustments to the calculation of the Deferral Credit. IPPBC states that it will "need some hands on experience with the system of calculating the Deferral Credits before the IPPBC can comment on the calculating process" (IPPBC Argument, pp. 5-6).

The Intervenor proposed design alternatives to the proposed Deferral Credit, including changes to the eligibility criteria, the equal sharing proposal, and the exclusion of "other benefits". These three design alternatives are addressed in the following subsections.

#### Eligibility for Deferral Credit

BCTC proposes that only new generators be eligible for the Deferral Credit. The expansion of the eligibility criteria to existing generation and loads was supported by the JIESC (JIESC Argument, p. 11) and CPC (CPC Argument, p. 11).

BCTC indicates it will consider extending the Deferral Credit to loads in cases where the load is connecting exclusively for the purposes of taking transmission service from BCTC (Exhibit B-6, JIESC IR 2 29.0(a); BCUC IR 2 12.0). BCTC submits that a performance contract for re-dispatch could apply to existing generators and provide similar benefits to the transmission system in the future (BCTC

Argument, p. 53, para. 148). CPC submits that the Commission Panel should direct BCTC to offer the Deferral Credit to existing generators (and existing or new loads), in conjunction with proposals for BCTC sourced or supplied re-dispatch and back-up services (CPC Argument, pp. 11-12). During the proceeding, BCTC stated a re-dispatch product has merit and will develop a re-dispatch product, subject only to other regulatory priorities (T7: 754-756).

#### Commission Determination

**The Commission Panel accepts that the Deferral Credit should not be made available to end-use customers of BC Hydro.** Without knowing what the underlying economics of BC Hydro's retail rates are, and therefore providing the Deferral Credit to loads may result in an end-use customer being compensated twice: once under the Deferral Credit and once under the end-use rates of BC Hydro (T10: 1439).

The Commission notes that BCTC has other regulatory priorities, and therefore has been unable to file a re-dispatch tariff. **The Commission Panel directs BCTC to file a re-dispatch tariff as soon as practicable, and report to the Commission at fiscal year end, if the re-dispatch tariff has not been filed by that time.**

#### Sharing of Cost Savings of Deferral of Capital Projects

BCTC proposes that the Deferral Credit be fifty percent of the "before" and "after" calculation. BCTC further submits that the equal sharing compensates customers for the uncertainty of future capital projects included in the baseline capital plan (Exhibit B1-4, BCUC IR 1 13.0). The Commission Panel accepts the submissions of BCTC that support a sharing of the benefits, and also notes the sharing ratio, be it 50/50 or otherwise, is necessarily arbitrary as there is no way to derive it, other than subjectively. In the absence of evidence to support a sharing ratio other than equal sharing, BCTC's proposal of 50/50 is not unexpected. BCTC submits that an equal sharing of the benefits is a fair allocation between participating new generators and the remaining transmission customers.

IPPBC submits there is no reason other long term transmission customers should get any of the benefits reflected in the “before” and “after” amount (IPPBC Argument, p. 5). The JIESC submits that a deferral credit should be greater than 50 percent, however, only in circumstances where the benefits are clear (JIESC Argument, p. 11). The Commission Panel concludes that a determination of the sharing based on the probability of the project being built or otherwise where the “benefits are clear” is not possible to determine in practice.

### Commission Determination

**The Commission accepts the IPPBC submissions for a greater than 50 percent sharing of the “before” and “after” amount, and given BCTC’s forecast requirements for investments in transmission facilities, the Commission concludes that a stronger location-specific price signal to new generators that defer transmission projects is appropriate. Therefore, the Commission Panel approves the proposed Deferral Credit modified to reflect a sharing of the “before” and “after” amount on the basis of 75 percent to the new generator.**

### Exclusion of Other Benefits from Calculation of Deferral Credit

BCTC does not propose to reflect the value of “other system benefits”, such as losses, in the Deferral Credit. BCTC states that including real power loss impacts in the calculation of the Deferral Credit would be inconsistent with average pricing and postage stamp philosophies in the FERC Order No. 888 Pro Forma tariff (Exhibit B1-4, BCUC IR 5.2). The IPPBC does not agree with BCTC’s decision to exclude real power loss impacts in the calculation of the Deferral Credit (IPPBC Argument, p. 5). CPC states that an “upgrader” will not be compensated “for any loss reduction, improved reliability or other system benefits that may result from the upgrade” (CPC Argument, p. 9). Both IPPBC and CPC suggest that a departure from the postage stamp aspects of the FERC Order No. 888 Pro Forma tariff is appropriate. BCTC states that the losses portion of the Deferral Credit would need to be based on the actual energy flows, which would substantially complicate the calculation, administration and payment of the Deferral Credit (BCTC Argument, p. 52, para. 146).

## Commission Determination

**The Commission Panel accepts BCTC's submissions that only cost savings from the deferral of capital expenditures should be included in the calculation of the Deferral Credit.**

### **4.3 Long Term Firm Shaped Service**

#### Application

BCTC proposes to offer shaped service as a means to improve access and utilization of the transmission system. BCTC currently offers long-term service on a “block” basis, requiring that customers purchase the same amount of transmission service in each month over the contract life. BCTC proposes that the OATT should contain a provision for Long Term Firm Shaped PTP service when there is insufficient Available Transmission Capacity to meet a long-term firm request for a standard block of service (Exhibit B1-1, p. 50). The LTF Shaped Service would have the same price and priority as LTF PTP service and customers would be charged based on the amount of firm service reserved each month. BCTC proposes that customers must take as much block service as possible before requesting LTF Shaped Service in order to prevent customers from reserving capacity in only the most valuable months. BCTC also proposes that customers must reserve at least 12 months of service with a positive reservation of at least 1 MW to meet the standard 12-month duration requirement of LTF service. BCTC initially proposed that customers who purchased LTF Shaped Service would have the right to roll-over the service at the end of the term, but the roll-over right would be limited to the same shape as the initial service (Exhibit B1-1, pp. 52-53). BCTC revised the principles for the roll-over of shaped service in response to Commission and Intervenor information requests, summarized by BCTC as follows:

- Shaped Service is provided as a result of a request where there is insufficient ATC to meet the block service requests.
- If ATC becomes available during the term of the Shaped Service Agreement, the Shaped Service Agreement holder will not be able or required to amend its contract during the contract term.

- If ATC is available at the end of the contract term, the Shaped Service Agreement holder wishing to continue with transmission service will be required to apply for a full block of service, which BCTC will provide if available.
- At the end of the contract term for Shaped Service, if another customer makes a block request and the two customers cannot be served with existing ATC, the new block service request is a competing request and the Shaped Service Contract holder has the right of first refusal to match the competing request.
- At the end of a Shaped Service Contract term, if ATC is available for more than the existing Shaped Service but is still not a full block service and there is a competing block service request, the Shaped Service Contract holder has first right of refusal to take the additional ATC (thereby increasing the shape taken) for the term of the competing request, up to the capacity of the Shaped Service Contract (BCTC Argument, p. 32, para. 87).

BCTC submits that the introduction of LTF Shaped Service is an important improvement to the FERC Order No. 888 Pro Forma tariff (BCTC Argument, p. 31, para. 85). The BCTC shaped service proposal raised a number of issues, addressed in turn in the following subsections.

#### BC Hydro Proposal

BC Hydro is concerned that there is a risk to NITS and LTF PTP customers that the awarding of LTF Shaped Service could degrade the quality of the service related to these firm transmission rights (Exhibit B2-8, p. 9). BC Hydro elaborates that if BCTC over-commits firm transmission system capability with the sale of LTF Shaped Service, it is firm service holders that would suffer ongoing pro rata curtailment of their firm services, with no opportunity to correct the situation short of having BCTC build new capacity and recover the associated costs from all customers (Exhibit B2-8, pp. 10-11). To address its concerns, BC Hydro proposes a Long Term Priority Non-Firm PTP service with a lower priority than long-term firm service. It would not be subject to displacement by short-term firm sales and would be priced according to the proportionate use of the system (Exhibit B2-8, pp. 11-13). BC Hydro says that a customer that chooses to make use of residual system capacity should not be afforded rights on the same level as those customers willing to take on the cost responsibilities associated with firm rights and expansions (Exhibit B2-8, p. 13). BC Hydro argues that an important element of its LT PNF proposal is that parties pay according to their own risk profile, rather than putting risks and costs on other parties. BC Hydro submits that this would allow potential PTP customers and

their financiers to make an informed decision on the best service alternative by quantitatively assessing the relative degree of access to the system under LTF PTP versus LT PNF service, and the associated costs (BC Hydro Argument, p. 13).

### CBTE Proposal

CBTE is concerned that BCTC's shaped service proposal is too supplier-focused rather than customer-focused; BCTC's requirement that customers reserve transmission capacity on BCTC terms is too stringent and will continue inefficient utilization of ATC. CBTE proposes that an IPP should be able to select how to match ATC with its delivery requirements if its initial request, in compliance with the tariff, cannot be met (Exhibit C4-2, p. 4). To this end, CBTE proposes the following four options to enhance BCTC's shaped service proposal (Exhibit C4-2, pp. 5-6):

- Allow the IPP to buy based on the IPP's monthly requirements;
- Allow the IPP to define no more than two levels of reservation for a 12-month period;
- Group or break allowed reservations to natural seasonal blocks, or blocks developed specifically to system available capacity; or
- Price monthly reservation capacity to be reflective of the relative value of each month.

While CBTE prefers the first option, it would be supportive of all four. CBTE states that the concern about the potential for customers to "cherry pick" the most valuable monthly capacity blocks would not normally apply in the case of an IPP attempting to reserve capacity since the IPP will only reserve based on its own delivery requirements (Exhibit C4-2, pp. 4-5). CBTE notes, for example, that a generator cannot cherry-pick transmission reservations, although a marketer could (CBTE Argument, p. 11). CBTE is of the view that proper pricing of customer-directed shaped service could be accomplished by combining Option 1 and Option 4 and ensuring that the average price paid for shaped service is the same as the LTF PTP monthly price. CBTE says that this result could be maintained by increasing the price of scarce transmission in certain months with a comparable price reduction in less valuable months (CBTE Argument, pp. 9-11).

### Submissions

CPC submits that if BCTC sets an arbitrarily high safety margin it would force IPPs to finance system upgrades even where capacity exists, further hindering IPP development. It submits that this would also increase rates to the extent that a high safety margin would reduce system utilization. CPC acknowledges that lenders may be reluctant to accept LT PNF as a substitute for LTF Shaped Service. CPC submits that the Commission should direct BCTC to provide both LT PNF and Customer-Selected Shaped Firm PTP service so that customers could use the two services in a complementary fashion (CPC Argument, p. 7). CPC is of the view that a properly priced customer-shaped service could attract incremental revenues from customers who might otherwise be unable to use transmission capacity economically. CPC also argues that concerns about cherry-picking could be further reduced by restricting the eligibility for shaped service to IPPs or generators with demonstrable rights to power entitlements (CPC Argument, p. 8).

The JIESC is primarily concerned about ensuring that capacity is not sold as a shaped service to the detriment of the NITS customer who has paid for the capacity and may require it in the future. The JIESC urges the Commission to make it clear that BCTC should err on the side of shorter term contracts and improved flexibility when assessing the amount of capacity available for LTF Shaped Service to avoid locking out the NITS customer from available capacity when needed. The JIESC opposes the CBTE proposal for customer shaped service on the grounds that it is ill-defined and would likely result in cherry picking and consequent under-recovery of revenues (JIESC Argument, p. 14).

CEC shares the concern that the LTF Shaped Service may shift costs to NITS customers. It also believes that BC Hydro has not sufficiently thought out its proposed LT PNF service as an alternative. CEC recommends that the Commission approve BCTC's proposed LTF Shaped Service, subject to a review in three years to determine the degree of service utilization and to determine whether costs have shifted to NITS customers (CEC Argument, p. 5).

The BCOAPO supports the BCTC proposal for shaped service in the context of both BCTC's mandate to provide open access transmission service and BCTC's view that it should explore options that will provide access and potentially reduce the NITS revenue requirement (BCOAPO Argument, p. 6).

BCTC argues that its calculation of ATC is inherently conservative; its staff have considerable expertise and it has adopted procedures and safeguards to ensure that its shaped service proposal does not pose a material risk to the availability of capacity for NITS load growth and does not degrade the existing rights of NITS and LTF PTP customers. BCTC states that in the absence of transmission upgrades, the ATC in the window of time for shaped service will have been the same as holding the ATC in a window of time for ST PTP. Further, BCTC notes that there is a margin of error built into the calculation of ATC with its use of the highest monthly seasonal peaks as its commitment to the NITS customer (BCTC Argument, pp. 31-34; BCTC Reply Argument, p. 25, para. 65). BCTC notes that given both the small size of the IPP market in BC and evidence of gradual changes in system load shape over time, the risk of over-committing the system is more hypothetical than real (BCTC Reply Argument, pp. 25-26, para. 65).

BCTC submits that LT PNF service is not a viable substitute for firm service, which IPPs require in order to obtain financing. BCTC notes that BC Hydro did not study whether its LT PNF proposal would meet any lenders' requirements for the financing of a long-term IPP project (BCTC Argument, p. 34, para. 93).

BCTC states that it discussed a customer-directed shaped service in its stakeholder consultations, but did not include it because of "cherry picking" concerns. BCTC notes that the value of transmission service is not the same in each month; it is based on monthly peak demands. BCTC acknowledges that customer-directed shaped service would be acceptable if priced properly to reflect the relative value of transmission at particular points in time. Commenting on the challenge inherent in properly pricing such a service, BCTC says that it would require the establishment, as a starting point, of an allocated share of the transmission revenue requirement to PTP service. In conclusion, BCTC submits that CBTE's customer-directed shaped service proposal was not sufficiently fleshed out to be capable of implementation at this stage; a number of uncertainties about pricing and roll-over rights remain, for example (BCTC Argument, pp. 35-36, para. 94-96; BCTC Reply Argument, p. 26, para. 66).

CBTE is of the view that, while there will be uncertainty with any new proposal, its proposal is sufficiently certain to be implemented at this time given that its proposed pricing mechanism uses the actual pricing formula already developed for LTF PTP rates. CBTE believes that, in view of the policy

objective to develop an IPP industry in BC, the most appropriate course of action is to implement its proposal. CBTE states that BCTC could monitor the customer-directed shaped service with respect to its system utilization and revenue objectives, making any adjustments with Commission approval, as necessary.

### Commission Determination

**The Commission Panel approves the LTF Shaped Service inclusive of BCTC's revisions to the roll-over provisions in the OATT Terms and Conditions.**

The Commission Panel agrees with the evidence and argument that suggests LT PNF service is not a viable substitute for firm service and therefore not appropriately aligned with the interests of IPPs who seek long-term project financing. The Commission Panel rejects BC Hydro's proposed LT PNF service.

The Commission Panel understands the concerns about "cherry picking" as described in the context of CBTE's proposed customer-directed shaped service and concurs that these concerns could be mitigated with appropriate pricing and other provisions. However, the Commission Panel agrees with the position of BCTC that there is insufficient evidence on the design and potential impacts of CBTE's proposal to allow it to be implemented at this time.

The Commission Panel believes that BCTC's proposal is an interim step toward increasing utilization of the transmission system. The Commission Panel acknowledges BCTC's view that its approach to estimating ATC is inherently conservative. **The Commission Panel directs BCTC to include in the December 2006 report, discussed in Section 14, a summary of the use of LTF Shaped Service, commenting on any evident implications of its use relative to present concerns about available capacity or service degradation.** The Commission Panel encourages BCTC to continue to consult with stakeholders on the details associated with pricing, or other parameters, for customer-directed shaped service so as to assess whether such a service might be a preferred alternative to LTF Shaped Service.

#### 4.4 BC Clean Rate

As part of the OATT, BCTC proposes a new, two tiered, volumetric (energy based), LTF PTP rate formula applicable exclusively to small BC Clean resources. The rate is to apply to “clean” generators that would have less than 50 MW of peak generation output (Exhibit B1-1, p. 53). The definition of “clean” in the context of eligibility for this rate is not specified in the Application. BCTC indicates the government definition of BC Clean is not sufficiently resolved to meet the purposes of a tariff eligibility provision (Exhibit B1-1, p. 58) and suggests greater clarity is required, and that Intervenor input will be critical in that regard (Exhibit B1-4, BCUC IR 19.6).

BCTC submits that, based on discussions with IPPs, the standard LTF PTP rate would be prohibitively expensive for intermittent use, which is typical of “clean” resources, such as wind and micro-hydro (Exhibit B1-4, BCUC IR 19.2). The proposed BC Clean rate provides small intermittent resources with lower bills than they would face on the standard LTF PTP rate. BCTC submits the BC Clean rate represents an opportunity to improve the utilization of the existing transmission system by removing an impediment to use by relatively small intermittent generators (BCTC Argument, p. 55, para. 152). Furthermore, the rate is intended to foster the development of clean resources (Exhibit B1-1, p. 58; T5: 283). BCTC indicated it relied largely on Energy Plan Policy Action 20 (Exhibit B1-1, p. 16) in the development of this rate.

BCTC also submits the proposed BC Clean rate is consistent with well-established ratemaking principles. It is designed to produce incremental revenue from customers that would otherwise not take service and to minimize the risk of cross-subsidization (BCTC Argument, p. 58, para. 151). BCTC supports the BC Clean rate on the basis it ultimately benefits all transmission customers by contributing to transmission system cost recovery at the margin (BCTC Argument, p. 55, para. 155).

The eligibility criterion of less than 50 MW is proposed by BCTC as it would capture the types of clean generation BCTC believes should be fostered, such as wind farms. In addition, the size restriction was meant to limit any potential cost shifting, or inappropriate use beyond what was intended, in order to protect other ratepayers (T7: 764-765).

The BC Clean rate was presented by BCTC as one of the significant and innovative additions to the previous WTS Tariff. The BC Clean rate is summarized by BCTC as follows:

... it's important I think to a lot of people that we provide opportunities in this province for particularly wind and micro-hydro and some of the resources that exist here. And so we think the rate is important in its objective, and we think it's creative in its design in that in our view it's able to meet its objectives in a way that doesn't impose costs on other ratepayers in our view, in fact benefits them, and it increases utilization of the system.  
(T8: 979-980)

A somewhat different view is presented by CPC:

The issue here is not whether it is good policy to promote clean generation. It clearly is. That is why the provincial government has set clean energy targets for utilities in the province. The issue is whether BCTC should have discriminatory provisions in its tariff - provisions available to some but not other clean generators - to facilitate certain types of clean generator use of firm PTP transmission service.....There are other and better ways of supporting clean generators. In BC and elsewhere there are renewable energy targets that cause distributors to purchase clean sources of supply. In some jurisdictions there are premium prices for green sources of supply. In many jurisdictions, special charges are levied on all transmission users to support DSM and renewable energy programs.  
(Exhibit C10-3, p. 16)

BC Hydro (BC Hydro Argument, p. 35) and BCOAPO (BCOAPO Argument, p. 4) suggest it is not necessary for BCTC to take action to meet Energy Plan Policy Action 20, as this is targeted at distributors, not transmission companies.

Despite its objective of incremental system utilization which is meant to benefit all transmission users, the BC Clean rate as proposed by BCTC did not receive support from most of the Intervenors representing load customers. The JIESC is concerned that this rate will provide substantial hidden subsidies to IPPs who wish to use congested paths from remote locations, and providing significant rate reductions to such customers will shift new customer costs onto existing customers (JIESC Argument, p. 12). BC Hydro submits the BC Clean rate is unfair, particularly to other PTP users, and that there is a better way to attract system users that would not be financially viable at the un-discounted rate, namely based on tests that are similar to the Commission's Bypass Rate Guidelines (BC Hydro Argument, pp. 35-36). BCOAPO is concerned the BC Clean rate is open to the possibility of subsidization by BC

Hydro's customers (BCOAPO Argument, p. 5). CEC indicates it supports the rate, but only with considerable modifications intended to ensure there will be no cost shifting or reduced system reliability as a result (CEC Argument, pp. 6-7).

Intervenors representing generators generally support the notion of having such a rate, yet they are also concerned it will result in undue discrimination. CPC submits that 'improvements' to the LTF PTP service must be available to all potential users, not just a narrow sub-class of users under the BC Clean rate (CPC Argument, p. 6). CBTE agrees with the concept of a preferential rate for clean power, and supports the rate design put forward by BCTC, but recommends that eligibility should be based on capacity factor of less than 50 percent, not capacity of less than 50 MW. In CBTE's submission, using BCTC's capacity based eligibility would exclude large hydro generation from using the rate, when there is no credible reason for doing so (CBTE Argument, pp. 12-13). In contrast, Cloudworks fully supports the BC Clean rate and the eligibility provision requiring a peak capacity of less than 50 MW, but believes more specificity in respect of the definition of 'clean' is required (Cloudworks Argument, pp. 3-4).

### Commission Determination

The Commission Panel commends BCTC for its creativity and effort in designing this rate, and acknowledges the merits of a tariff aimed at increasing utilization of the existing system, in order to reduce rates for all ratepayers, as noted above in relation to the general LTF PTP rate. However, the Commission Panel takes note of the various concerns brought forward by Intervenors, and has several reservations about the need for, and the specifics of the design of the BC Clean rate. While the Commission Panel takes from BCTC's testimony that it is evident BCTC has good intentions behind its BC Clean Rate proposal, it has too little in the way of substantive backing.

The Commission Panel agrees with BC Hydro and BCOAPO that taking action in respect of Energy Plan Policy Action 20 goes beyond the mandate of BCTC. The Commission Panel also acknowledges the merit in CPC's suggestion that if clean generation is to be encouraged, it can be done, for example, through BC Hydro acquisition policies. This is also supported by the JIESC (JIESC Argument, p. 12). According to the Commission Panel's interpretation of current government policy, it is not convinced it

is BCTC's responsibility to remove barriers to the development of BC Clean, or any other specific types of resources.

Without the goal of fostering clean resource development, the legitimate goal that is left is that of encouraging system utilization that would otherwise not occur (i.e. on the standard rate). This concept has support from several Intervenors (BC Hydro Argument, p. 35; CEC at T12:1752). The Commission Panel understands that to establish what utilization would otherwise not occur is difficult in practice and is not persuaded that the proposed eligibility criteria will reasonably accomplish this end result without causing undue discrimination.

With a demand based PTP rate, the lower a potential user's capacity factor, the higher the rate becomes in terms of \$/kW.h, and thus the more 'uneconomic' it may be to any particular customer. By restricting the use of this rate to 'clean' generators, BCTC's eligibility provisions attempt to make LT PTP service more attractive to clean resources in recognition that they tend to be intermittent (i.e. have low capacity factors), in response to discussions BCTC had with such customers. Respecting the rationale for the 50 MW maximum, the Commission Panel agrees it is prudent to consider how to mitigate risk to other users when introducing a new rate class, where the potential uptake and revenue impact is unknown. The Commission Panel is not, however, satisfied the proposed size limit is the appropriate mechanism to do so. The Commission Panel acknowledges the arguments by CPC and CBTE who are concerned the 50 MW size limit is arbitrary and excludes some clean, low capacity factor resources.

The Commission Panel concludes that to offer a reduced rate to a class of customers defined by a size and type restriction, such as the BC Clean rate does, is unduly discriminatory, notwithstanding its intention of encouraging incremental system use while protecting other ratepayers from the consequences of unexpected use of the rate. Indeed, there are likely other IPPs, of various sizes and types, that would be more likely to use PTP service if it was discounted from the standard rate, potentially resulting in incremental revenue. Thus, the problem is a broader one that should be considered as part of the general LTF PTP rate design with all LTF PTP users in mind, rather than one considered only to be of import to a specific subset of users within that class. This is not necessarily to say there can not be differing rates for different users of LTF PTP service, but rather that the basis for any distinction needs to be more robust than the rationale underlying the BC Clean eligibility provisions

proposed by BCTC.

In summary, the Commission Panel considers the proposed BC Clean rate amounts to a special rate that attempts to artificially remove market impediments for a select, but, as it currently stands, vaguely defined group of customers. The Commission Panel is therefore not convinced the rate is appropriate, nor that it would be workable or fair in practice.

**The Commission Panel denies the proposal for a BC Clean Rate.**

**Accordingly, the Commission Panel directs BCTC to undertake a study and review the options for more fundamental changes to its rate design for the December 2006 report discussed in Section 14. In particular, the report should discuss alternative forms of PTP rates that could further enhance utilization of the transmission system while still reflecting a degree of cost causality.**

## 5.0 SHORT TERM POINT TO POINT SERVICE

### Application

BCTC states that the purpose of the short-term rate design is to promote energy trading and efficient use of transmission capacity that has not already been committed for long-term service, while ensuring a fair contribution to transmission system cost recovery (Exhibit B1-1, p. 59). In support of this goal, BCTC proposes several changes to the existing ST PTP service under the WTS, including updating the pricing indices used in the discounting formula, and elimination of the existing short-term pricing floors.

ST PTP service is available on a firm or non-firm basis for reservation periods up to one year. The standard non-discounted ST PTP rate is set to equal the full LTF PTP rate converted to a per MW.h equivalent, applicable to all service to load-serving points within BC. The ST PTP discounting formula applies only to transactions into, through or out of BC (“out and through transactions”). BCTC proposes that prices for any term longer than one week would be equal to the full non-discounted rate.

The ST PTP formula under the WTS calculated a rate equal to one quarter of the gains from trade, where the gain from trade was estimated as the difference between the estimated cost of electricity in Alberta and posted prices at the California-Oregon Border. The cost of electricity in Alberta was estimated using the cost of natural gas at Encana’s Calgary Hub converted to electricity (Exhibit B1-1, pp. 60-61). Under the WTS discounting formula there were minimum prices of \$2.00/MW.h for firm service and \$1.00/MW.h for non-firm service.

BCTC proposes that the ST PTP discounted rate should continue to be based on one-quarter of the gains from trade. However, BCTC proposes to change the formula to estimate the gain from trade as the difference between the Alberta Power Pool price and the Mid-Columbia price (including a loss factor on the BPA and Alberta systems). The formula would be updated once per day based on prices for the most recent heavy load hour and light load hour periods. The Alberta price would be a volume-weighted average of hourly prices for each previous HLH and LLH period. The Mid-C price would be based on the published index provided by Dow Jones for HLH and LLH periods. BCTC proposes that

BC Hydro losses not be included in the discounting formula because losses in BC are paid for or self-supplied and should therefore not be included in the price of ST PTP service.

BCTC considers its new ST PTP discounting formula to be an improvement over the existing formula for two reasons. First, it views Mid-C as a more liquid trading hub than COB, and the greater trading volume at Mid-C should lead to more stable rates based on less volatile Mid-C prices. Second, the establishment of the Alberta Power Pool has eliminated the need to use a gas-based proxy value for the electricity price (Exhibit B1-1, pp. 63-64).

The ST PTP discounting formula calculates a short-term firm PTP rate. BCTC proposes that the price for non-firm PTP service should be equal to the firm price less \$1/MW.h, with a minimum of zero. This proposal represents a reduction in the premium between firm and non-firm transactions from the existing premium of \$2/MW.h. BCTC considers a smaller discount to be warranted in view of its proposals to reduce the average firm rate and to eliminate the price floor. BCTC also believes that, based on its experience, the quality difference between firm and non-firm service is small (Exhibit B1-6, BCUC IR 2.23.2).

BCTC proposes to continue to set a maximum short-term rate by capping the rate at the LTF PTP \$/kW-month rate converted to a \$/MW.h equivalent (the Firm Cap rate). While BCTC proposes to eliminate the price floor (the minimum price for a discounted ST PTP rate can equal zero), it proposes to charge a minimum transaction fee of \$55, based on its current average costs to process each transaction. BCTC also proposes directional pricing for discounted ST PTP such that the price of transmission will be zero in the opposite direction of trade for which the value of transmission is positive, as determined by the formula.

BCTC evaluated its proposed ST PTP discounting formula and the removal of the price floor against the goals of increased use of the transmission system and contribution to fixed costs from short-term customers. BCTC concluded from its analysis that its proposed formula would result in substantially fewer blocked hours (i.e. hours where no transaction occurred because the value of transmission service was less than or equal to the price) and would have only a small impact on average revenue.

BCTC also proposes to continue using the simple average of the high and low-load hour prices for daily pricing. Service for a single week of firm service would be priced at the daily price for firm service plus one-half of the difference between the daily price and the maximum price. The price for non-firm weekly service would be equal to the weekly firm price less \$1/MW.h. BCTC's application proposed that prices for service beyond one week would no longer be discounted and would be equal to the full non-discounted price in the tariff (Exhibit B1-1, p. 68). BCTC clarified this latter proposal to mean that for all short-term firm reservations beyond one week, the proposed rate would be equal to a weighted average of the calculated firm rate for the first week and the Firm Cap rate for the subsequent weeks in the same short-term reservation. Likewise, the price of non-firm service beyond one week would be equal to the weighted average firm rate less \$1/MW.h (Exhibit B1-11, BCUC IR 3.3.4). BCTC says that its proposal to eliminate the discounting of reservations beyond one week eliminates a flaw in the current rate that allows weekly service to have a lower per-MW.h rate than daily service (Exhibit B1-6, BCUC IR 2.1.2).

BCTC indicates that if approved, its discounting formula will be described in a separate document in BCTC's business practices, and will be filed with the Commission. BCTC filed a proposed web page Bulletin on short-term hourly pricing that reflects the directional aspect of the formula (Exhibit B1-6, BCUC IR 2.20.2; revised version attached to Exhibit B1-7).

### Submissions

Several issues about BCTC's proposal were addressed over the course of this proceeding, a number of which remain and are addressed in the submissions of BCTC and Intervenors. The following discussion considers each of these issues in turn.

BCTC notes that its proposed maximum price for ST PTP service is essentially the same approach currently taken under the WTS Tariff. BCTC argues that capping the price of short-term service rather than taking a revenue-maximizing approach is appropriate for a number of reasons. BCTC submits that maximizing revenue from short-term service is inconsistent with the objective of increasing usage of the transmission system, which by association would not be in alignment with the Master Agreement

requirement to maximize throughput, nor the Energy Plan Policy Action to increase energy trade. Further, revenue maximization may be counterproductive to the objective of benefiting domestic NITS customers to the extent that it results in: 1) lower system usage with less PTP revenues to offset NITS revenue requirement obligations; or 2) less trade revenue back in the form of Powerex trade income (BCTC Argument, pp. 38-39, para. 103-104).

The JIESC highlights BCTC testimony that suggests one reason the price of short-term service is capped at the LTF PTP rate is that short-term service is an inferior service to long-term service. While the JIESC does not advocate a higher price cap at this time, it states that it does not accept the principle that short-term service is necessarily inferior to long-term service and should always be priced lower on a unit basis. The JIESC remarks that there can be real advantages to short-term service, the largest of which are the lack of a commitment to pay for the service if it is not used and the fact that the price can vary between near zero and the Firm Cap rate (JIESC Argument, p. 15).

BCTC submits that its proposed directional pricing of ST PTP is consistent with its goal to provide an indication of transmission value and will significantly reduce the blocking of transactions that flow in the opposite direction of market prices (BCTC Argument, p. 40, para. 108). BCTC believes that making the formula directional will have very little impact on NITS customers, noting that if the formula were a perfectly accurate measure of trade value there would be no impact at all because all transactions would flow in the single direction for which transmission had value (Exhibit B1-6, BCUC IR 2.1.2).

BCTC submits that discounting transactions through, into or out of BC promotes incremental use of the system and captures a fair portion of the economic gain from trade. BCTC argues that transactions within BC should not be discounted because the transmission system has been built to meet the long-term needs of domestic loads and discounting would not lead to any incremental use of the system. Given that most transmission transactions within BC are provided under NITS, BCTC submits that discounting PTP service within BC would cause domestic customers to migrate from NITS to ST PTP service, shifting costs onto the remaining NITS customers. BCTC notes that its discounting rules are identical to the provisions in the FERC Order No. 888 Pro Forma tariff, which permits the offering of discounts on a path-by-path basis (BCTC Argument, p. 40, para. 110-111).

As noted above, BCTC has reformed the current practice of discounting reservations longer than one week but shorter than one year to eliminate a flaw that allows such reservations to be priced lower than daily service. BCTC also submits that discounting daily prices does not provide useful information on the value of transmission for periods longer than one week. Rather, BCTC expects that such discounting would not have a significant impact on incremental transmission use and would therefore risk a substantial reduction in revenue. BCTC notes further that without discounting there remains a sufficient incentive for reservations of longer duration because of the higher priority afforded such reservations (BCTC Argument, pp. 41-42, para. 113; Exhibit B1-4, BCUC IR 1.28.0; Exhibit B1-6, BC Hydro IR 2.9.2).

BC Hydro believes that the BCTC proposal is an improvement over the current methodology but it believes that the availability and efficiency of transmission system use can be further improved by: 1) eliminating the minimum \$55 transactions fee; 2) modifying the OATT to include displacement based on price for short-term firm transmission on the same basis as for short-term non-firm transmission service; and 3) developing acceptable business practices to improve the workings of the existing displacement procedures (Exhibit B2-8, p. 6; BC Hydro Argument, pp. 13-14). Issues associated with business practices are addressed in Section 10: Business Practices.

BC Hydro says that rather than BCTC attempting to set the market value of its transmission, it should simply allow the transmission customers to set the value. BC Hydro says that the issue is one of fixed cost recovery because system variable costs are already recovered through charges on Scheduling and Real Power Losses. Therefore, BC Hydro believes that the \$55 minimum transaction fee is not required (Exhibit B2-8, p. 6).

For both short-term firm and non-firm service respectively, reservation priority in the OATT would be based on the duration of competing requests (OATT Sections 13.2 and 14.2). However, for the case of competing short-term non-firm service requests of equal duration, priority would be based on price (OATT Section 14.2). BC Hydro requests that this latter provision apply to short-term firm service as well. BC Hydro suggests that Section 13.2 of the OATT be modified to include the provision that, “Competing requests of equal duration be prioritized based on the highest price offered by the Eligible

Customer for the Transmission Service.” BC Hydro says that modifying the tariff in this manner will fix an inconsistency that allows a higher value service (firm) to be sold at a lower price than a lower value service (non-firm), even in the same operating horizon (Exhibit B2-8, pp. 4, 7 and Attachment B).

BCTC argues that its proposed new formula and \$55 minimum fee strike an appropriate balance between the objectives of maximizing use of the transmission system and ensuring a fair contribution to cost recovery from short-term users (BCTC Argument, p. 39). BCTC testified that the minimum fee is designed to prevent or discourage small transactions that do incur this cost and have negative margin, although it expects that the occurrence of such transactions would be relatively low (T8: 908). BCTC submits also that BC Hydro schedules are likely large enough to not attract the minimum fee (BCTC Argument, p. 39).

While BC Hydro agrees that the size of most of its schedules are large enough such that the \$55 fee would not be an issue, it argues that the minimum \$55 fee is an arbitrary floor price that would unnecessarily block small, low margin transactions, with a consequent potential loss in revenues (BC Hydro Argument, p. 15).

BCTC states that BC Hydro’s proposed displacement procedure for short-term firm service is not contemplated by the FERC Order No. 888 Pro Forma tariff, would require incompatible changes from industry standards prescribed for use by other Transmission Providers, and would encounter the problem of an illiquid transmission market that led BCTC to avoid the use of a price auction to allocate short-term transmission in the first place (BCTC Argument, pp. 43-44).

BC Hydro is of the view that its proposed modification to the displacement procedure for short-term firm service would not necessarily increase seams with neighbouring jurisdictions to the extent that such jurisdictions are not strictly adhering to industry practices. BC Hydro believes that discounting would work better under its proposal and could lead to additional revenues (BC Hydro Argument, p. 16).

### Commission Determination

**The Commission Panel approves the ST PTP rate design and the associated Terms and Conditions for ST PTP service as filed.** The following discussion summarizes the Commission Panel's determinations on the pertinent issues.

The Commission Panel agrees with BCTC's underlying objective for its short-term rate design to promote energy trading and efficient use of the transmission capacity that has not already been committed for long-term service, while ensuring a fair contribution to transmission system cost recovery.

The Commission Panel accepts the evidence and argument that the proposed new pricing indices in the short-term discounting formula are an improvement over the indices used in the existing WTS formula. The Commission Panel is compelled by the analysis and reasoning that support BCTC's conclusions that removal of the price floor in combination with the new pricing indices will lead to fewer blocked hours with only a marginal impact on revenues. The Commission Panel considers that the evidence and argument in this regard provide reasonable justification for removing the price floor in combination with BCTC's proposed short-term price discounting formula. The Commission Panel agrees that a change to the calculation of short-term non-firm prices is required in light of the proposed new pricing indices and accepts BCTC's argument in support of reducing the premium for firm transactions from \$2/MW.h to \$1/MW.h. The Commission Panel agrees with the submissions of BCTC in support of limiting the discounting of ST PTP services to periods of one week or less. The Commission Panel accepts BCTC's proposed pricing of short-term out and through transactions.

The Commission Panel accepts that the proposed \$55 transaction fee is a reasonable minimum charge per transaction given BCTC's objective for short-term rate design. The Commission Panel is of the view that BC Hydro has not provided sufficient evidence to justify its proposal that this minimum fee should not be approved.

The Commission Panel accepts the proposal that the short-term pricing discounting formula should be directional with the price of transmission equal to zero in the opposite direction of gains from trade, as based on the difference between Alberta and Mid-C market prices. However, the Commission Panel notes the uncertainty about the impacts of the directional proposal. For example, the Commission Panel observes that BCTC was unable to model this aspect of its proposal in its evaluation of the percentage of blocked hours and revenue impacts under different short-term pricing formulas (Exhibit B1-6, AESO IR 2.19.3). Also, in response to cross-examination by Commission counsel, the BCTC panel did not know whether it could be profitable for Powerex to trade into the US when the Alberta price was higher than the Mid-C price (T8: 899). **Given this uncertainty, the Commission Panel directs BCTC to include in the December 2006 report, discussed in Section 14, an evaluation of the directional aspect of short-term service price discounting.** The evaluation should detail the amount of short-term firm and non-firm energy trade that flows in the opposite direction of the market prices used in the formula. The evaluation should assess the incremental impact of BCTC's directional proposal on the percentage of blocked hours and on revenues, including an estimate of the inherent value of directional pricing associated with any reduction in blocked hours and capacity constraints in the direction of market prices. To the extent possible, the evaluation should comment on or assess the amount of trade that would have occurred in the opposite direction of market prices despite the directional component.

The Commission Panel agrees with BCTC's submissions in support of its proposal to maintain a maximum short-term rate capped at the LTF PTP rate equivalent. For example, the Commission Panel agrees that a revenue-maximizing approach to short-term pricing would run counter to BCTC's objective of short-term rate design and would not likely be in the best interests of domestic customers. However, the Commission Panel acknowledges the JIESC submission disputing the principle that short-term service is necessarily inferior to long-term service and should always be priced lower on a unit basis.

The Commission Panel denies BC Hydro's proposal to modify the terms and condition of the OATT to include displacement based on price for short-term firm transmission on the same basis as for short-term non-firm transmission service. The Commission Panel is not persuaded by BC Hydro's assertions that such a modification could improve the discounting of short-term transactions, increase revenues and be

of no consequence with respect to its compatibility with existing industry practices. The Commission Panel is of the view that BC Hydro's evidence and argument are insufficient in this regard. In its submissions on ST PTP service, BC Hydro proposed that acceptable business practices should be developed to improve the workings of the existing displacement procedures. The Commission Panel encourages BCTC to address BC Hydro's concerns in the context of the Commission Panel's directions on business practices as set out in Section 10 of this Decision.

## **6.0 LONG TERM PLANNING, OPEN SEASON AND INVESTMENT POLICY**

### **6.1 Open Season and Clustering**

#### Application

BCTC proposes an Open Season process and Clustering to mitigate some problems in the existing queue-based system that restrict its ability to anticipate customer needs or advantageously aggregate multiple service requests. BCTC submits that the Open Season process and Clustering offer the potential to improve transmission planning and increase the use of the transmission system.

The Open Season process is designed to ensure that transmission expansion occurs in a logical and efficient manner. The Open Season process would allow BCTC to aggregate customer requests for LTF PTP service received during an Open Season Window in order that BCTC may form a customer base large enough to financially support major new transmission expansion that can meet the aggregated request. The Open Season will establish the cost of Network Upgrades required to meet the aggregated request and provides the mechanism for sharing these costs among the Open Season participants pro rata based on the quantity of transmission service awarded. The provisions necessary to implement the Open Season process are specified in Section 15.8 of the OATT, with supporting revisions in Section 13.2. The cost allocation mechanism is detailed in Attachment K to the OATT Terms and Conditions (Exhibit B1-1, pp. 83-90).

The purpose of Clustering is to allow the Transmission Provider to elect to study simultaneously all interconnection requests received during a 180-day Queue Cluster Window. Any network upgrade costs arising out of Clustering would be allocated among the interconnection requests pro rata based on the maximum output of the generating facilities subject to the interconnection requests (Exhibit B1-1, pp. 101-102). Provisions for Clustering are detailed in Section 4.2 of the SGIP, while the mechanism for allocating Clustering costs is described in Attachment K to the OATT Terms and Conditions.

### Submissions

Issues and concerns with BCTC's Open Season proposal were thoroughly investigated through the evidentiary stages of this proceeding. BCTC has clarified that its Open Season process does not disrupt the first-come, first-served priority of the tariff; it will maintain this priority within the Open Season window for allocating any existing ATC that is available to satisfy part or all of a request for service received in an Open Season. Also, BCTC initially set a condition that any customer with an existing queue position that drops out of the queue and enters the Open Season would forfeit its initial queue position. BCTC reconsidered that this aspect of its proposal may not encourage participation in the Open Season if customers have to abandon their queue position without knowing whether they are better off to do so. BCTC has revised its proposal to permit customers in the existing queue to have their requests studied alone and within the Open Season at their option, without losing their priority in the existing queue (Exhibit B1-6, BC Hydro IR 2.16.1). In sum, BCTC comments that the concerns of Intervenors with respect to the Open Season process appear to be directed only to whether it will meet BCTC's expectations of it (BCTC Argument, p. 64, para. 179).

BCTC suggests that there are sufficient incentives inherent in its Open Season system to mitigate any concerns that the Open Season may encourage free-rider behaviour by customers seeking to avoid paying any network upgrade costs. BCTC comments that a customer that skips an Open Season would need to be sure that: 1) the Open Season would produce enough spare capacity for its needs; and 2) the customer could time its post-Open Season request such that it (and not some other party) would be able to secure that capacity. BCTC submits that these uncertainties should be sufficient to dissuade most serious projects from such a strategy, particularly considering the cost-sharing benefits of an Open Season. All told, BCTC submits that it is more economically efficient to construct and allocate new transmission capacity based on overall customer needs, rather than based on each customer's position in a time-stamped queue. Further, BCTC highlights that the Open Season concept operates hand-in-hand with its proposed Investment Policy and Attachment J to achieve efficient expansion of the Transmission System (BCTC Argument, pp. 65-66, para. 184-186).

BC Hydro has no issues with the Open Season proposal, as revised through the proceeding (BC Hydro Argument, pp. 46-47). The JIESC supports the concepts of Open Season and Clustering and urges the Commission to support their implementation (JIESC Argument, p. 14). CEC supports the Open Season and Clustering as an attempt to introduce some added efficiency into a process that has the potential to rapidly become inefficient (CEC Argument, p. 10). CBTE agrees with the concept of an Open Season, but believes that the BC market is not mature enough, nor are there sufficient market participants, to allow an Open Season to work effectively to ensure that all necessary upgrades are made (CBTE Argument, p. 6). BCOAPO remarks that the Open Season process and Clustering appear to be real attempts to deal with existing queue-based problems and to address the issues arising from the requirement of the Energy Plan that BC Hydro acquire future resources from the private sector through a bidding process (BCOAPO Argument, p. 6).

CPC states that the Open Season process is a worthwhile component of the system upgrade process. However, it submits that the process is not a substitute for the pro-active role that BCTC should take in respect of large “lumpy” investments, where generators and other users may not all be ready or willing to proceed at the same time and LTF PTP and NITS requirements would not otherwise be integrated (CPC Argument, p. 13). While the IPPBC supports the Open Season process as a means of reducing facility study and network upgrade costs, it submits that BCTC should make every effort to reduce these costs irrespective of whether an IPP participates in an Open Season. The IPPBC argues that, from a practical perspective, it is going to be very difficult to effect the IPP contractual arrangements that are part of an Open Season. It asserts that if one IPP in an Open Season window runs into difficulties with its project, it is highly unlikely the remaining customers in the window will take over the failed IPP’s position (IPPBC Argument, p. 6).

BCTC submits that there appears to be universal agreement among Intervenors that the Open Season proposal is a good concept. BCTC adds that Intervenors have not identified any insurmountable obstacles (BCTC Reply Argument, p. 30, para. 83).

### Commission Determination

The Commission Panel agrees with the rationale and objective underpinning BCTC's Open Season and Clustering proposals. The Commission Panel believes that Open Season and Clustering will improve the existing WTS queue-based system and will offer the potential to improve planning and increase use of the transmission system. The Commission Panel observes that most issues and concerns with respect to these proposals, including those of the Commission Panel, were adequately addressed and answered through the evidentiary stages of this proceeding. The Commission Panel acknowledges the universal support among Intervenors for the Open Season proposal.

The Commission Panel believes that BCTC's proposal reasonably addresses the IPPBC's concern about the practical limitation of the Open Season if a customer drops out of the process after BCTC has studied the aggregate requests and determined the appropriate upgrade facilities. In this situation, BCTC proposes either to evaluate a different set of upgrade facilities as necessary, or to re-offer the costs and allocation to the remaining customers in the Open Season based on its initial network upgrade solution (Exhibit B1-1, p. 89). The Commission Panel agrees with BCTC's reasoning that sufficient incentives exist to mitigate concerns about free-riding behaviour. Further, the Commission Panel agrees with BCTC's view that there will not likely be substantial value to any free-riding behaviour since network upgrade costs are ultimately rolled in under BCTC's proposal (BCTC Argument, p. 66, para. 185; Exhibit B1-4, BCUC IR 1.15.2).

**The Commission Panel approves the Open Season and Clustering proposals, and the applicable revised Terms and Conditions as filed.**

## **6.2 Network Customer - Competitive Electricity Acquisition Process and the OATT**

### Introduction

The Energy Plan creates a policy framework for BC Hydro to continue to have competitive acquisition calls similar to those undertaken over the past three years (Exhibit B2-9, p. 5). The CEAP is initiated by

a Network Customer to acquire third party generation resources. BCTC did not initially propose provisions in its tariff to expressly accommodate the CEAP, either in the Terms and Conditions (Exhibit B1-7, Tab 'Revised OATT') or in the Standard Generator Interconnection Procedures (Exhibit B1-1, Appendix A, Attachment M), both of which address, among other things, the manner in which Systems Impact Studies are performed (Exhibit B1-11, BC Hydro IR 3 55.0(c)).

BC Hydro argued the OATT provisions were not sufficient for the CEAP process and submitted its own version of a tariff schedule, referred to as Attachment XX, which addresses the matters it believes are important to facilitate the CEAP (Exhibit B2-9, p. 6). BCTC first acknowledged that tariff modifications are required to accommodate CEAPs in its Rebuttal Evidence (Exhibit B1-18, p. 7), and submitted its proposals in this regard in Exhibit B1-27, just prior to the hearing.

During the proceeding and in final argument, there has been considerable confusion with respect to proposals made by both BCTC and BC Hydro for modifications to the tariff to accommodate the CEAP (BCTC Reply Argument, pp. 34-35, para. 94-95; T12: 1775). The Commission Panel believes BCTC ought to have foreseen the need for tariff changes to accommodate the CEAP, and notes that BCTC did not accept the need for changes to the tariff until late in the proceeding. In future proceedings, BCTC needs to ensure that more consideration is given to the CEAP than was evident in this proceeding.

The Commission Panel concludes it is more effective to give directions to BCTC relative to the proposed modifications in Exhibit B1-27, rather than to give directions relative to BC Hydro's proposals in Attachment XX. Therefore, this Section considers issues raised by BC Hydro and BCTC in the context of Exhibits B1-27 and B1-18. BCTC is to revise the relevant sections of its tariff, as established in Exhibit B1-27, or otherwise as necessary to comply with the following determinations, conclusions and directions in this Decision.

#### Initial Study Period

BC Hydro identified four requirements for CEAPs and stated that the key issues between BC Hydro and BCTC related to the appropriate information to select the least-cost project or portfolio of projects in an

acquisition process (Exhibit B2-9, p. 6; BC Hydro Argument, p. 24). BCTC submits that engaging in study work for projects or combinations of projects that are not portfolios have limited value and may be misleading because projects can impact each other. Therefore, BCTC submits that the results of Interconnection Studies for an individual project may be different than for the same project studied in a portfolio.

BCTC also submits that Interconnection Studies do not provide any help to a bidder in respect of necessary facilities between the generating facility and the point of change of ownership because bidders are responsible to investigate these costs on their own (BCTC Argument, p. 71, para. 201). In rebuttal evidence, BCTC stated that the CEAP could be structured so as to require bidders to submit information or bids that provide enough information to permit a Network Customer to identify and assemble appropriate portfolios of generators that meet the CEAP requirements (Exhibit B1-18, p. 6).

BCTC submits that BC Hydro's Attachment XX, as modified by Exhibit B2-27, proposes unrealistic timelines and limits the Interconnection Customer's ability to optimize its project, all in order to facilitate a period of initial study prior to the portfolio development (BCTC Argument, p. 67, para. 190).

### Commission Determination

The Commission Panel finds that BCTC does not give sufficient consideration to the requirements of a CEAP process in Exhibit B1-27, particularly when balancing the information needs of the CEAP against the need to maintain a fair and functioning queue. The Commission Panel also finds that the broader public interest in CEAPs should be given considerably more weight than concerns BCTC may have for resources and the cost of studies.

The Commission Panel notes BCTC's concerns regarding resources and expects that in the future the requirements of a CEAP may be beyond the resources that are currently available to BCTC. In those circumstances, the Commission Panel expects that BCTC will need to "secure a transient work force only required during peak work periods" (BCTC Argument, p. 68, para. 194) and also expects that most CEAPs can be resourced from BCTC's current resources.

The Commission Panel does not accept BCTC's submission that engaging in study work for projects or combinations of projects that are not portfolios is unnecessary. In a competitive process, information may be valuable to bidders and/or BC Hydro for purposes that are not foreseeable by BCTC. The Commission Panel accepts that Interconnection Requests prior to the determination of portfolios in the CEAP may have limited value for selecting the successful portfolio; however, that does not suggest that such information has no value to the bidders and/or BC Hydro. The Commission Panel also rejects BCTC's submission that BC Hydro should be able to structure its CEAPs in a way that permits BC Hydro to construct and identify project "portfolios" before study work is undertaken (BCTC Argument, p. 68, para, 192). The Commission Panel finds that more information than is contemplated in Exhibit B1-27 may be necessary for the bidders to prepare their bids into the CEAP and for BC Hydro to develop portfolios. The Commission Panel also finds that BC Hydro requires more discretion to define in the context of each CEAP the additional information to be made available (T12: 1774).

The Commission Panel rejects BCTC's submission that BCTC and BC Hydro should be given the opportunity to reach an agreement on a "reasonable number of different combinations of such Interconnection Requests" to be studied (BCTC Argument, p. 69, para. 196). For greater clarity, the Commission Panel concludes that BCTC's agreement to the number of portfolios to be studied in a CEAP is not necessary. If BCTC has concerns about the number of studies to be completed, those concerns should be brought first to the Network Customers attention and then, if necessary, BCTC should report to the Commission.

BCTC proposed a mechanism for providing relief for BC Hydro from the OATT's interconnection procedures for its 2005 CEAP (BCTC Reply Argument, pp. 37-38, para. 103-106). During the Oral Phase of Argument, BC Hydro accepted BCTC's proposal for providing relief for its 2005 CEAP with the exception of the fixed date of February 28, 2006 proposed by BCTC. BCTC accepted BC Hydro's revision to the proposal (T12: 1803-1804). **Therefore, the Commission Panel approves BCTC's proposal, as revised, for relief for BC Hydro from the OATT's interconnection procedures for its 2005 CEAP.**

Commission Directions for Revisions to OATT Terms and Conditions

**BCTC is directed to revise the OATT Terms and Conditions, as last modified by Exhibit B1-27, to give effect to all of the previous determinations and in accordance with the following directions.**

BC Hydro is to be consulted, although BC Hydro's consent to the revisions is not required.

1) Revisions for Consultations Regarding CEAP Design - The Commission Panel directs BCTC to make revisions to the OATT Terms and Conditions so that a Network Customer is required to consult with the Transmission Provider prior to establishing any future CEAP. The revisions should ensure that the Network Customer is to give due consideration to any concerns that the Transmission Provider may have regarding the type of studies to be performed for the particular CEAP, and if the Network Customer is unable to satisfy all concerns that the Transmission Provider may have then the Network Customer is to report to the Commission.

2) Posting of Available Information - The Commission Panel directs BCTC to make revisions to the OATT Terms and Conditions so that the Transmission Provider shall post on its OASIS, at least 60 Calendar Days in advance of the expected date of the NITS Application, information then available regarding the transmission system that may be useful to the Network Customer or bidders in a future CEAP. Such information need not include information that can reasonably be expected to be made available in System Impact Studies and Facilities Studies as required by Section 29.23(i) of Exhibit B1-27.

3) Study Requirements Prior to Portfolio Identification - The Commission Panel directs BCTC to make revisions to the OATT Terms and Conditions that require the Transmission Provider to make available to bidders and the Network Customer, information requested by the Network Customer, acting reasonably, that is necessary for the purposes of identifying portfolios for the NITS Application(s) provided for in Section 29.21 of Exhibit B1-27. Within 15 Calendar Days of receiving the request, the Transmission Provider will define and release to the Network Customer the scope of the study work to be made available in this additional information step so as to better manage the volume of study work, both in this additional information step and in Section 29.22 of Exhibit B1-27, but the scope of study

work should ensure that a Network Customer can reasonably identify portfolios as contemplated by the Network Customer in its request to the Transmission Provider. With the release of the “scope of study work” document, the Transmission Provider will post on its OASIS and advise the Network Customer of the date for posting of the study results, and the date for submission of NITS Application(s). The date for posting the study results will be no later than 60 Calendar Days from the release of the “scope of study work” document, and the date for the submission of NITS Application(s) will be 30 Calendar Days from the posting of the study results, or such other date as agreed to by the Transmission Provider and the Network Customer.

The revisions should also contemplate the Network Customer not making such a request, in which case, there will be no study requirements prior to submission of NITS Application(s).

For the purposes of making the necessary revisions for this direction, the Commission Panel finds that transmission studies that differ considerably from the standard interconnection and transmission studies may be desirable for study requirements prior to portfolio identification (BCTC Argument, p. 72, para. 203), particularly if the results of such studies will facilitate CEAPs and also reduce costs.

4) Allotment of Time - The Commission Panel directs BCTC to make revisions to the OATT Terms and Conditions so that the Transmission Provider and the Network Customer, by mutual agreement, may extend the period from the submission of the NITS Application(s) contemplated in Section 29.21 of Exhibit B1-27 to the date for execution of the NITS Service Agreement and Combined Study Agreement. The Commission Panel finds that for most CEAPs the 180 Calendar Days plus the 30 Calendar Days from direction 3 above provides an appropriate balance between the process necessary for a CEAP and the need to maintain a fair and functioning queue. However, the broader public interest in ensuring successful CEAPs may suggest a longer period may be appropriate depending on the requirements of the particular CEAP.

The revisions should also require the Transmission Provider to provide to the Network Customer an estimate of the required time for each step in the revised Terms and Conditions so that such estimates may be used by the Network Customer for the purposes of designing the CEAP. The allocation of time

will include the 120 Calendar Day period set forth in Exhibit B1-27, Section 29.22, unless modified by BCTC, acting reasonably, in the event that the Transmission Provider and the Network Customer reach an agreement contemplated in the preceding paragraph. The Transmission Provider is to provide to the Network Customer the final allocation of time no later than 15 Calendar Days after the CEAP IR Submission Date. Once the Transmission Provider has established the allocation of time for each step in the revised Terms and Conditions, then that allocation may not be changed without the approval of the Network Customer.

5) Queue Position - The Commission Panel directs BCTC to make revisions to the OATT Terms and Conditions so that an Application(s) made pursuant to Section 29.21 will be assigned a priority based on a deemed submission date that is the same date and time as the posting by the Transmission Provider of the study results from direction 3 above.

### **6.3 Investment Policy for Network Upgrade Costs and Transmission Credits**

BCTC proposes to revise the existing investment policy, which addresses the funding of Network Upgrades. The proposed investment policy is a system in which customers are required to finance the entire Network Upgrade prior to construction, but receive monthly credits up to and usable against their total transmission bill for LTF PTP service for the duration of the transmission contract. Once the credit balance is reduced to nil, the customer is required to pay its transmission bill monthly to BCTC just as any other transmission customer (Exhibit B1-1, pp. 76-77). In effect, the transmission customer is paying for a Network Upgrade in lieu of service obtained until such time as the customer has received service equal to the total value of the upgrade. Thereafter, payments made by the customer reduce the costs for all customers (Exhibit B1-4, BCUC IR 30.2).

The existing policy under the WTS Tariff requires the customer requiring a Network Upgrade to pay an amount upfront, equal to the cost of the upgrade reduced by the transmission customer's discounted value of ten years of transmission margin (Exhibit B1-1, p. 76). BCTC notes that relative to the existing policy, the new investment policy is generally advantageous to IPPs since it provides them with more years' worth of Transmission Credit. However, it does require that IPPs finance the entire Network

Upgrade upon signing the service agreement.

Network Upgrades are defined as modifications or additions to transmission related facilities that are integrated with and support the overall Transmission System for the general benefit of all users. The drivers for Network Upgrades are new or expanded LTF PTP service requests, ERIS and NRIS (Exhibit B1-1, Appendix A, Section 1.26; Attachment K, Part D). The cost of a Network Upgrade is established in a System Impact Study (Exhibit B1-1, Appendix A, Section 13.5, 27; Attachment K), which may be performed in accordance with BCTC's proposed Open Season process (Exhibit B1-1, Appendix A, Section 15.8). The Network Upgrade cost applicable to a particular customer may, therefore, be an allocated portion of a greater total amount required for more than one service request.

Part of BCTC's proposed Network Upgrade policy is to redefine the basis for determining Network Upgrade costs. BCTC proposes to make the definition consistent with FERC Order No. 2003-A, which establishes Network Upgrades on the basis of which side of the point of interconnection the facilities are on (Exhibit B1-1, p. 96). BCTC submits this approach reduces the degree of subjectivity involved (Exhibit B1-4, BCUC IRs 36.3 and 36.4). Direct Assignment Facilities continue to be those that are incurred "for the sole use and benefit" of a particular customer, as they are under the WTS Tariff. In accordance with Attachment K, the costs of Direct Assignment Facilities are payable in full by the customer who requires them, and are not refunded via the proposed Transmission Credit. No Intervenor took issue with these aspects of BCTC's proposal.

BCTC submits its proposed investment policy balances the need of new transmission customers seeking access to the system, while minimizing the risk exposure of existing customers due to stranded assets (BCTC Argument, p. 44, para. 122). BCTC argues that on one hand, the new policy reduces the total costs for large upgrades relative to the existing policy, and on the other, the requirement to make an upfront payment will guard against speculative transmission requests requiring large upgrades (BCTC Argument, p. 46, para. 128). BCTC submits it is not a reasonable solution to require other customers to bear the cost of upgrades, for which they have no need, and from which they derive no benefit (BCTC Reply Argument, p. 27, para. 69).

Intervenors do not take issue with BCTC's proposal to alter its investment policy in general, but take issue with specific features of the new policy. CBTE supports the proposal (Exhibit C4-2, pp. 7-8).

CPC recognizes that the proposed Transmission Credit provisions in BCTC's OATT will usually enable those parties funding upgrades to recover more of the costs they incur relative to the existing policy, without adversely affecting other system users (Exhibit C10-3, p. 8). However, CPC's submissions indicate they are concerned that for IPPs to be commercially feasible, the upgrade provisions must ensure that upgraders have an opportunity to capture the benefit of the upgrades they pay for at least to the point of recovering their costs (CPC Argument, p. 9). CPC's submissions are made in the context of a Network Upgrade that results in additional capacity in excess of what is required by the requesting customer. According to CPC, the shortcomings of the proposed policy that take away from the opportunity to recover the Network Upgrade costs in full are the lack of compensation for loss reduction and other 'system benefits' in the calculation of the Deferral Credits (discussed in Section 4.2), 'pioneer rights', and an inappropriate interest rate used to calculate the Transmission Credit (Exhibit C10-3, p. 9; CPC Argument, pp. 9-10).

In contrast, the JIESC is of the view the proposed investment policy does not go far enough in protecting existing ratepayers. This is driven in large part by the assumption that the upfront payment will be treated as equity by BC Hydro, in accordance with Heritage Special Direction No. HC2 to the BCUC, attracting return and increasing rates. The JIESC is also concerned that the proposed policy does not guarantee any contribution to the existing system costs or operating costs that the requesting customer will have the benefit of (JIESC Argument, p. 5). The JIESC proposes that, in order to limit the potential for uneconomic upgrades and protect existing customers from ultimately funding them, there should be a time limit (e.g. 10 years) on the provision of the Transmission Credit. This would ensure the new customer ultimately contributes to the total system costs (JIESC Argument, p. 6).

These matters are discussed further in the following sections.

### Interest Rate used in Calculation of Transmission Credit

The interest rate BCTC proposes to use in the calculation of the Transmission Credit is BCTC's weighted average cost of debt, which is a proxy for the costs BC Hydro's ratepayers would have paid had they funded the upgrade themselves (BCTC Argument, p. 48, para. 134).

CPC proposes the interest rate should be based on the customer's weighted average cost of capital, or a Commission approved WACC, in order to ensure that IPPs will be able to recover their entire costs (Exhibit C10-3, pp. 9, 11). IPPBC suggests basing the discount rate on BC Hydro's weighted average cost of capital (IPPBC Argument, p. 6).

BCTC recognizes that the use of BCTC's WACD will mean the customer requiring the upgrade is unlikely to be fully compensated for the cost of its borrowing (BCTC Argument, p. 48, para. 134). Nevertheless, BCTC argues the use of WACD instills discipline on such a customer (BCTC Argument, p. 44, para. 121), since using the customer's actual cost of capital will mean the customer would have no incentive to keep its borrowing costs low, nor would it have an incentive to restrict the size of the upgrade. In addition, there are practical problems with attempting to establish the actual WACC for each customer. In the alternative, if the Commission Panel were to establish a predetermined interest rate intended to represent a fair market rate, this would similarly erode the discipline intended by the use of WACD, and would still result in an increased cost burden on existing ratepayers. CEC agrees with BCTC that the use of WACD should provide the necessary discipline (CEC Argument, p. 7).

### Alternative Forms of Security

BCTC introduced an alternative method - Option 3 - in its response to customer concerns regarding the accounting treatment. This method requires BC Hydro, the transmission asset owner, to fund Network Upgrades and the customer to post security in the same amount as the Network Upgrade cost. The customer is required to pay the effective transmission charges for service. The amount of security will be reduced in the same amount of transmission revenue received from the customer on an annual basis. If at the end of the service contract there is a positive balance on the security and the customer does not

renew service, BC Hydro may call on the remaining balance of the security to offset the un-depreciated asset. BCTC submits that if customers and the Commission Panel find Option 3 a more appropriate solution, BCTC would adopt Option 3 (Exhibit B1-6, Volume 2 of 2, JIESC IR 23.0a).

BC Hydro confirms that customer payment for funding Network Upgrades would be treated as deferred revenue which is considered as deemed equity, like CIAC, and therefore results in an increase to BC Hydro's deemed equity amount. BC Hydro notes that BCTC's proposed Option 3 is similar to the funding method BC Hydro currently uses when a customer is required to guarantee BC Hydro's cost of reinforcing the system to accommodate the customer's load (Exhibit B2-4, BC Hydro's Response to BCUC IR 1 37.1 and 37.2 to BCTC).

The following submissions were made to address the concern that upfront payments for Network Upgrades will be treated as deemed equity by BC Hydro, in accordance with SD HC2, attracting return and increasing rates. Cloudworks recommends the Network Upgrade cost can be supported by cash or a Letter of Credit acceptable to BCTC (Cloudworks Argument, p. 1). JIESC suggests that instead of a cash contribution, a letter of Credit or equivalent security be required by the new customer (JIESC Argument, p. 6). This proposal is supported by CEC (CEC Argument, p. 7).

In the Oral Phase of Argument, JIESC provided further interpretation in consideration of whether SD HC2 is relevant for the purposes of providing cash as a form of security and concluded that cash as a security would be an acceptable option (T12: 1853-1857).

The Commission Panel concludes that a CIAC and upfront cash payments for Network Upgrades are fundamentally different than a security provided for Network Upgrades and therefore any form of security should not be treated as deemed equity under SD HC2. A CIAC is non-refundable and is generally amortized at the same rate as the underlying assets are depreciated. Upfront cash payments (prepaid revenue) are by definition treated as deferred revenue. Unlike CIAC and upfront cash payments for Network Upgrades, a Letter of Credit, cash or equivalent security, where arranged with a financial institution at arm's length, will be reduced over time to reflect that the anticipated revenues have been generated; thereby reducing the need for security.

### Secondary Market for Unused Transmission Capacity

In response to CPC's concerns that in cases where the upgrade is larger than required, and the customer is therefore unlikely to fully recover the cost of the network upgrade over a reasonable time, BCTC suggests that the excess capacity may be resold on the secondary market to "self effect" a "pioneer right" (T7: 668-669) to recoup some of the costs. However, there tends to be general agreement that the secondary market for the resale of transmission capacity is not liquid (Exhibit B1-11, CPC IR 3 5.0(d); CPC Argument, p. 9), and this means it may not be possible for the excess capacity to be resold.

In addition, CPC submits that the fact unused capacity reverts to BCTC in the hour ahead to resell on the short term market constitutes another hindrance to a new customer's ability to recover the Network Upgrade cost (CPC Argument, p. 9). In this regard, BCTC submits that revenue from the resale of unused LTF PTP capacity is the same as that for all short term related revenue, and therefore it goes to reduce the NITS rates. The rationale for this revolves around the fact NITS customers backstop the entire revenue requirement, and that it is consistent with the FERC Order No. 888 Pro Forma tariff, and the previous WTS Tariff (T7: 743, 744)

### Commission Determination

BCTC's proposed investment policy is designed with the intent that new IPPs are paid back their entire investment, other than, as noted, differences in their financing costs relative to the utility's cost of debt. This effectively means they are subject to costs that are very close to the same 'rolled-in' rates as all other customers. Only in cases where the upgrade costs are very expensive will the upgrading customer be unlikely to escape a financial burden significantly in excess of average system costs. The Commission Panel regards this as an appropriate outcome, and considers BCTC's proposed Network Upgrade Policy strikes an appropriate balance between the interests of new and existing customers.

In cases where a Network Upgrade is so expensive that it is simply impossible for the customer to be reimbursed the full amount over a reasonable term from the Transmission Credit, the Commission Panel believes the customer must decide whether there are still economic or other reasons to proceed with its

project when looking beyond transmission costs. There is no reason other customers should be expected to assist the new customer in making its project a success, when they derive no benefit from doing so.

As discussed in Section 4.2, the Commission agrees with BCTC that compensation for “other system benefits” is inappropriate. This applies equally whether in the context of Deferral Credits or the investment policy under the OATT. While providing such compensation would appear to expedite the payback of the initial funding of the upgrade and potentially make the new customer’s project more attractive in such cases, the Commission Panel believes the provision of such benefits would inappropriately tilt the economics in favour of such projects.

It is also clear to the Commission Panel that, in the context of the proposed investment policy under which the customer requesting the upgrade does not ultimately pay for the full cost of a Network Upgrade (i.e. all or some is refunded via the Transmission Credit), the notion of affording ‘pioneer rights’ must be rejected.

Similarly, if some of the costs can not be recouped by the customer via sales to the secondary market (or as BCTC put it, by “self-effected pioneer rights”), due to its illiquidity or otherwise, that itself does not render the proposed policy unfair. Regarding revenues gained by BCTC from the resale of unused LTF PTP capacity to the short-term market in the hour before, the Commission Panel notes allocating such revenue to NITS customers is consistent with the determinations made in respect of the NITS and LTF PTP rate calculations in Sections 3.1 and 4.1 above.

With respect to the interest rate to be used in the calculation of the Transmission Credit, the Commission Panel agrees BCTC’s WACD is practical, and will serve to instill discipline on new customers requiring upgrades with regard to the size of the service request and their own financing costs. Any alternative ways of setting the interest determinations would be difficult to apply and get ‘right’ in practice and carry the risk of imposing costs on other customers.

The Commission Panel acknowledges the concerns raised regarding the accounting treatment of the funding proposal and the potential resultant increase to ratepayers. The Commission Panel accepts the

method referred to as Option 3, introduced by BCTC, requiring BC Hydro to fund the upgrades, as a way to accommodate these concerns and, therefore, regards the use of a Letter of Credit, cash or equivalent security from the customer as reasonable means to accomplish the intent of the proposed investment policy.

**The Commission Panel approves the Network Upgrade policy, as provided for in Attachment K of the proposed OATT, with the exception of the up-front payment required in accordance with clause D.1(a). The Commission Panel directs BCTC to revise Attachment K to reflect that a Letter of Credit, cash or equivalent security may be used instead of the requirement for an up-front payment.**

## 7.0 ANCILLARY SERVICES

Under the OATT, BCTC will become the provider of last resort for AS to transmission customers. The resources procured by BCTC to supply AS to transmission customers are referred to as Interconnected Operation Services, all of which are currently provided by BC Hydro (Exhibit B1-1, p. 8).

BCTC proposes to continue to provide the same AS as currently offered under the WTS Tariff (Exhibit B1-1, p. 8). The BCTC Schedules for the corresponding services are in Appendix A, Tab L, and Appendix B of Exhibit B1-1. The following AS are currently provided under the WTS Tariff, and are proposed by BCTC to continue under the OATT:

- Scheduling, System Control and Dispatch Service (BC Hydro Schedule 3003; BCTC Schedules 003 and 103)
- Reactive Supply and Voltage Control Service (BC Hydro Schedule 3004; BCTC Schedules 04 and 104)
- Regulation and Frequency Response Service (BC Hydro Schedule 3005; BCTC Schedules 05 and 105)
- Energy Imbalance Service (BC Hydro Schedule 3006; BCTC Schedules 06 and 106)
- Operating Reserve Services – Spinning Reserve (BC Hydro Schedule 3007; BCTC Schedules 07 and 107) and Supplemental Reserve (BC Hydro Schedule 3008; BCTC Schedules 08 and 108)
- Loss Compensation Service (BC Hydro Schedule 3009; BCTC Schedules 09 and 109)

Upon approval of the OATT, these services will no longer be required as services provided by BC Hydro, and therefore BC Hydro's respective schedules will be closed.

Notwithstanding its proposal to maintain the existing services, BCTC proposes to modify two aspects of AS.

First, BCTC proposes to procure IOS related to all AS except Scheduling, System Control and Dispatch Services, on a least cost basis from qualified non-BC Hydro providers, although it is anticipated that BC

Hydro will likely continue to supply most of the required IOS. BC Hydro's rates for the wholesale provision of IOS to BCTC are regulated by the Commission, and are addressed in BC Hydro's Application for Interconnected Operating Services, which is further discussed in Section 8.0 below. The proposal by BCTC to set up a competitive procurement process for IOS is motivated by Energy Plan Policy Actions 13 and 15 (Exhibit B1-1, p. 111). As part of setting up the IOS market, BCTC plans to develop IOS technical standards that an IPP must meet in order to qualify as an IOS supplier, and that are intended to ensure reliable system operations (Exhibit B1-1, p. 117).

Second, BCTC proposes to change the process of settling Energy Imbalance charges from a monthly to an hourly basis, and to institute symmetric energy charges within a wider deviation band to make the tariff more attractive to end-users (Exhibit B1-1, p. 111).

Different pricing mechanisms for capacity AS and energy AS are proposed. Other than Energy Imbalance Service and Loss Compensation Service, all remaining AS are capacity services. Each of these is addressed in the following subsections.

### **7.1 Capacity Ancillary Services**

BCTC proposes that rates for Scheduling, System Control and Dispatch Service (Schedule 03), Reactive Supply and Voltage Control Service (Schedule 04), Regulation and Frequency Response Service (Schedule 05), Spinning Reserve Service (Schedule 07) and Supplemental Reserve Service (Schedule 08) be set on the basis of the quantity weighted average of the cost of IOS supplied by all parties. If BC Hydro is the only supplier, which is expected to be the case in the near future, BCTC proposes its rates for AS simply equal the rates of the approved BC Hydro IOS rate schedules. BCTC will not accept charges for IOS from other suppliers that are higher than BC Hydro's rates (Exhibit B1-1, p. 115).

BCTC proposes to update the rates for AS every time its supply costs change, in order to recover to the best extent possible the IOS costs in the period, and from the customers for which they are incurred. In addition, BCTC proposes to capture any residual variances between the cost of IOS and revenue for AS in a deferral account (Exhibit B1-1, p. 116).

Intervenors do not appear to take issue with BCTC's proposed pricing for capacity related AS. However, BC Hydro takes the position that BCTC should not provide capacity related AS to customers who use PTP service for export and are capable of self-supply (BC Hydro Argument, p. 6). BC Hydro submits that because BC Hydro proposes to provide generation capacity-related IOS to BCTC at embedded cost based rates, exporting customers would be able to arbitrage between these rates and their other options (comprising self-supply and purchasing from the market), causing harm to BC Hydro and its ratepayers (Exhibit B2-1, p.8; BC Hydro Argument, p. 9). BCTC raises a practical issue with respect to BC Hydro's proposal, which is that BCTC cannot know at any given time who can self-supply and who cannot. In addition, BCTC contends there is no evidence demonstrating there is any material risk to BC Hydro in providing this service, which has been provided for many years (BCTC Argument, p. 77, para. 215).

#### Commission Determination

The Commission Panel notes the practical issue brought forward by BCTC with respect to determining which customers are capable of self-supply of capacity related AS, and concludes the risk of arbitrage for capacity related AS at the present time is minimal.

**The Commission Panel approves the proposed capacity related AS Schedules 103, 104, 105, 107 and 108.**

**Correspondingly, the Commission Panel orders BC Hydro Tariff Supplement 30 and Schedules 3003, 3004, 3005, 3007 and 3008 be closed.**

## **7.2 Energy Imbalance Service**

BCTC proposes several changes to the Energy Imbalance Service to the OATT customers, in order to provide incentives for all customers and suppliers to act in ways that enhance, rather than jeopardize the reliability of the transmission system, and to fairly recover costs imposed by deviations from schedules from parties that caused them (Exhibit B1-1, p. 119).

Energy Imbalance Service is provided when a difference occurs between the scheduled and actual energy delivered to loads by NITS and PTP customers (Exhibit B1-1, Appendix A, Attachment L, Schedule 06). Positive imbalances occur when generation is greater than scheduled and/or when the load is less than scheduled, and negative imbalances occur when generation is less than scheduled and/or when the load is more than scheduled (Exhibit B1-1, p. 120).

The current Energy Imbalance Service under the WTS tariff settles on the basis of the net energy imbalance over a 30 day period. A different price applies to each of positive and negative net monthly balances within the deviation band, and to negative imbalances outside the deviation band. Positive imbalance energy outside the deviation band is forfeit. The current deviation band is 1.5 percent of a scheduled transaction, with a minimum of 2 MW (Exhibit B1-1, pp. 119-120).

Underlying the provision of Energy Imbalance Service by BCTC is the requirement for BCTC to procure the necessary energy from generation sources. BC Hydro is currently the sole provider of IOS, but BCTC proposes to initiate a process whereby other suppliers could provide IOS to BCTC for the provision of AS. However, it is anticipated that BC Hydro will continue to be the main source of IOS in the near future. It is BCTC's intention that the AS rates be set on a flow-through basis (Exhibit B1-4, BCUC IR 45.0).

BC Hydro, in its original IOS Application (Exhibit B2-1) filed shortly after BCTC's OATT Application, proposes that the Energy Imbalance Service it provides to BCTC on Schedule 3011 be priced to reflect a "buy/sell spread" based on its opportunity costs, meaning the cost to BCTC to make up negative imbalances would be greater than the revenue received for positive imbalances. BC Hydro submits this is necessary in order to protect its ratepayers from any negative financial implications resulting from arbitrage that could occur in the absence of pricing that was reflective of opportunity costs (Exhibit B2-6, BCUC IR 2 5.1).

BCTC's first proposal for OATT Energy Imbalance Service features symmetrical pricing for both positive and negative energy imbalances within a bandwidth of the greater of 1.5 percent or 5 MW. This is intended to facilitate access to the transmission system by smaller customers such as direct

access loads and intermittent generators that cannot easily control their transmission usage (Exhibit B1-1, p. 125; Exhibit B1-4, BCUC IR 45.4). The energy is to be settled hourly at an Energy Imbalance price reflective of market prices, posted after the hour in question, so as to eliminate incentives to over or under generate on the basis of an IPP's cost position vis-à-vis the posted price (Exhibit B1-1, p. 122). For positive imbalances outside the deviation band, customers would receive 75 percent of the Energy Imbalance price per MW.h, and for negative balances outside the deviation band customers would pay 125 percent of the Energy Imbalance price per MW.h (Exhibit B1-1, pp. 123-124).

However, if BCTC were to flow-through BC Hydro's proposed Energy Imbalance prices from Schedule 3011 to BCTC's Schedule 106, the resulting prices would not be symmetrical within a deviation band as per BCTC's originally proposed rate structure.

On February 23, 2005, BCTC and BC Hydro submitted a joint proposal, that represents a compromise between BCTC's and BC Hydro's original proposals, which both utilities submit is efficient, fair to all system users and strikes an appropriate balance between the interests of the OATT customers and the financial implications for BC Hydro's ratepayers (Exhibit B1-23; Exhibit B2-19). Among other things, the proposal recognizes the following:

- there is a spread between the value at which BC Hydro is willing to buy or sell energy;
- the amount of Energy Imbalance Service is not expected to be significant in the near term, and for moderate usage it is reasonable to price energy up and energy down on an average basis and forego the value of the buy/sell spread; and
- in cases where a customer is using more than a moderate amount of imbalance service, the customer should be subject to the appropriate buy or sell prices.

These items are reflected in the revised Schedules 06 and 106 in Exhibit B1-23, which replace those in BCTC's OATT Application, and in the revised Schedule 3011 in Exhibit B2-19, which replaces the one originally filed in BC Hydro's IOS Application.

The general effect of the revised Schedules is that the OATT customers will pay an average price within a 4 MW band, and outside this band, the energy price will be set equal to BC Hydro's buy and sell prices as set out in Schedule 3011. BC Hydro's charges to BCTC on Schedule 3011 for hourly Energy Imbalance will be based on its average buy and sell price within a bandwidth of 400 MW.h (on a wholesale basis) and energy outside this band will be priced at the hourly buy or sell price (Exhibit B1-23).

In addition, BCTC will flow through to BC Hydro any excess revenues collected through its Energy Imbalance rate. The excess revenues in this context are defined as revenues collected on the Energy Imbalance Rate less any costs incurred through the purchase of IOS Energy Services from other suppliers. This serves to automatically clear BCTC's Cost of Market Deferral Account (Exhibit B1-23).

Intervenors did not take issue with the revised Energy Imbalance proposals by BCTC and BC Hydro.

### Commission Determination

The Commission Panel believes the proposal in Exhibit B1-23 and Exhibit B2-19 is practical and agrees with BCTC and BC Hydro that it strikes a balance between the interests of the OATT customers and the financial implications for BC Hydro's ratepayers.

**The Commission Panel approves Rate Schedules 06 and 106 as submitted in Exhibit B1-23.**

**Correspondingly, the Commission Panel orders BC Hydro Tariff Supplement 30 and Schedule 3006 be closed.**

### **7.3 Loss Compensation Service**

BCTC proposes to continue to provide all existing AS under the OATT, including Loss Compensation Service, which is provided for in Schedules 09 and 109 (Exhibit B1-1, Appendix A, Attachment L, and Appendix B). BCTC's rationale for keeping Loss Compensation Service as part of its offering is based on Energy Plan Policy Action 15. BCTC contends that in order to improve access to the transmission

system, the OATT should offer IPPs the same services, not fewer, than those they have access to today (BCTC Argument, p. 78, para. 218). The Commission Panel notes that none of the submissions made by Intervenors representing generators (i.e. IPPBC, CPC, CBTE, Cloudworks) provide additional support for this.

BC Hydro, however, argues that Loss Compensation Service is unnecessary as it is possible for IPPs using PTP service to simply schedule more energy in order to compensate for losses, whereas, if BCTC were to provide losses compensation supplied by BC Hydro, BC Hydro could be exposed to risks of arbitrage if the price for losses is not set at BC Hydro's true opportunity cost (BC Hydro IOS Argument, p. 3).

#### Commission Determination

The Commission Panel finds the risk of arbitrage could harm BC Hydro's ratepayers, and therefore disagrees with BCTC that it is appropriate for it to offer Loss Compensation Service under the OATT. The Commission further agrees with BC Hydro that PTP customers can account for losses in their scheduling, and therefore sees no harm to IPPs in removing Loss Compensation Service from the OATT.

**The Commission Panel denies the request for approval of Loss Compensation Service Rate Schedules 09 and 109. The Commission Panel orders BC Hydro Tariff Supplement 30 and Schedule 3009 be closed.**

#### **7.4 Reactive Power**

In the OATT Application, Chapter 6: Generator Interconnection Service (Exhibit B1-1, p. 104), BCTC proposes to remove the requirement of payment for reactive power, on the basis that it is a commercial transaction more appropriately addressed in a commercial agreement between parties.

BCTC states:

BCTC expects that a number of issues would be covered in a commercial arrangement for the supply of reactive power that exceeds the standard generator interconnection requirement. These provisions would include but not be limited to:

- the supply of reactive power capacity;
- location;
- availability;
- dependability;
- price;
- penalties for non-delivery;
- type of requirement (steady state or dynamic/variable);
- duration of contract; and
- notice of termination (IR CPC 3.13.0, Exhibit B1-21).

CPC submits BCTC has failed to describe the nature of the commercial arrangement for the supply of reactive power, and that BCTC should be directed by the Commission to file a pro-forma agreement that describes the terms and conditions for payment of reactive power (CPC Argument, p. 13).

#### Commission Determination

The Commission Panel finds that the supply of reactive power beyond standard requirements from IPPs to BCTC should be viewed in a manner consistent with the proposal by BCTC to open up the market for IOS to suppliers other than BC Hydro, as noted in the Introduction above.

**The Commission Panel accepts BCTC's initiative to purchase IOS from other suppliers and agrees it is consistent with the intent of the Energy Plan, and therefore agrees the terms of payment and supply related to reactive power are appropriately addressed in a commercial agreement between the IPP and BCTC.**

## **8.0 INTERCONNECTED OPERATION SERVICES APPLICATION**

BC Hydro seeks approval of the following five rate schedules for the provision of IOS to BCTC so that BCTC may provide the corresponding ancillary services to OATT customers as discussed in Section 7.0 above:

- Schedule 3011- Energy Service
- Schedule 3012 - Reactive Supply Service
- Schedule 3013 - Regulation and Frequency Response Service
- Schedule 3014 - Spinning Reserve Service
- Schedule 3015 - Supplemental Reserve Service

Pursuant to section 6.3(a) of the Master Agreement, BC Hydro must provide BCTC with IOS necessary for BCTC to provide Ancillary Services to OATT customers, other than those customers who self-supply those services. Accordingly the proposed IOS tariff is only available to BCTC. Section 6.5 of the Master Agreement provides for external market proxy or BC Hydro's opportunity cost pricing where possible. BC Hydro submits pricing based on an external market proxy is possible and appropriate with respect to energy-related services, but for capacity-related services there are no appropriate proxy markets and BC Hydro proposes to base its rates for these services on the embedded cost basis that was used under BC Hydro's WTS (Exhibit B2-1).

Based on submissions made in this proceeding it is evident that parties generally consider the pricing and availability of ancillary services and the supply thereof by BC Hydro, from the perspective of what would be appropriate for OATT customers receiving AS from BCTC. Thus, the issues brought forward by Intervenors, BCTC, and BC Hydro in respect of AS and IOS have largely been addressed in the previous section.

As discussed in Section 7 above, Rate Schedule 3011 as submitted in Exhibit B2-19 on February 23, 2005 replaces BC Hydro's initially proposed Schedule 3011. Because the provision of Loss

Compensation Service by BCTC is not approved, BC Hydro's Energy Service Schedule 3011 applies to BCTC only in support of Energy Imbalance Service.

The rates for Schedules 3013 - 3015 inclusive, are derived based upon the updated costs of the different BC Hydro generation units divided by the corresponding name plate capacities of such units, as set out in Tab B of the Application (Exhibit B2-1, p. 10).

Reactive Supply Service Schedule 3012 provides BCTC with access to BC Hydro generation resources with the potential to deliver Reactive Supply (VARs). In 1997, the embedded cost associated with BC Hydro's generation units having the potential to deliver or absorb VARs was allocated based on transmission scheduled use. BC Hydro proposes that the rate for IOS Reactive Supply be the same as BCTC's corresponding Reactive Supply and Voltage Control Ancillary Service rate. BC Hydro does not have access to the billing determinant on which BCTC will allocate this service and as a result has not set a Reactive Supply rate in this application. It will set an IOS Reactive Supply rate once BCTC has established its RSVC Ancillary Service rate. BC Hydro proposes that BCTC use the cost of \$87.3 million (F2005 revenue requirement associated with generation equipment capable of providing or absorbing VARs) in setting its RSVC Ancillary Service rate (Exhibit B2-1, p. 9).

No parties, including BCTC, took issue with BC Hydro's proposals in regard to Schedules 3012, 3013, 3014, and 3015.

### Commission Determination

The Commission Panel notes the effect of the proposed IOS is to maintain the status quo for all AS provided by BCTC, other than Loss Compensation and Energy Imbalance, as discussed in Section 7 above.

**The Commission Panel approves Schedule 3011 as provided in Exhibit B2-19 for the reasons provided in Section 7, and also approves Schedules 3012, 3013, 3014, and 3015.**

## 9.0 DISPUTE RESOLUTION

Section 12 of the proposed OATT sets out the procedures for resolving a dispute between BCTC and a transmission customer and is essentially the same as the dispute resolution section of the WTS Tariff.

BC Hydro expresses two main concerns with the OATT dispute resolution process. First, BC Hydro states that while BCTC operates in a fashion intended not to discriminate between customers, BCTC would tend to favour its own business process needs over its customers. Second, BC Hydro is concerned that many disputes regarding business practices centre around the issues of whether the business practices are operating as intended and/or whether the Transmission Provider properly interpreted the business practices. In BC Hydro's view, the Transmission Provider would be put in the position of judging itself in such cases. BC Hydro also expresses concerns that the dispute resolution processes in the OATT could take an extended period and could be potentially expensive to undertake. In its view, if a dispute involved the awarding of capacity, a delay in resolving the dispute could mean that the capacity had been awarded and possibly used before the dispute was resolved (Exhibit B2-8, p. 16).

To remedy the inadequacies it perceives in the BCTC dispute resolution processes, BC Hydro proposes an informal, non-binding, mediation service by BCUC staff to facilitate dispute resolution, modeled on the Enforcement Hotline operated by the FERC. The FERC Hotline staff can informally assess matters within FERC's jurisdiction, clarify FERC requirements and render verbal, non-binding opinions as to potential violations of FERC standards (Exhibit B2-8, p. 17).

BCTC dismisses the BC Hydro suggestions as impractical and unnecessary and argues that its dispute resolution procedures currently in place are sufficient (BCTC Argument, pp. 62-63, para. 177). BCTC states that it currently has both informal and formal processes in place to resolve disputes. The informal process involves complaints or disputes lodged with BCTC's Market Operations Groups for resolution by BCTC staff (Exhibit B-11, Response to BC Hydro IR 3 63.0(b)). If informal resolution fails or is not used, arbitration procedures are provided for under Section 12 of the OATT (Exhibit B1-7, p. 23; T5: 326). Disputes may also be directed to the Commission for resolution by the filing of a formal complaint.

Of those disputes reviewed through an informal process, BCTC indicated that only about five per year advanced beyond the Client Service Manager level to the vice-presidential level. BCTC also indicated that since approximately 1999 only one transmission related complaint has been taken to arbitration and one has been taken to the Commission as a formal complaint (T8: 938-939; BCTC Argument, pp. 62-63, para. 176).

BC Hydro reiterates its submissions that the informal process currently employed by BCTC is fundamentally inadequate because it allows BCTC to judge its own business practices and tariff interpretations. It submits that the formal arbitration procedures provided for under Section 12 of the OATT are also inadequate because near-term market opportunities could be lost long before an arbitrated solution was reached (BC Hydro Argument, pp. 18-19, para. 42).

The JIESC supports BCTC's submission that a dispute resolution mechanism based on the FERC Hotline is impractical and unnecessary, and that existing measures are sufficient and appropriate. In the view of the JIESC, BC does not have enough transmission customers to warrant the expense of establishing such a hotline, nor are enough complaints anticipated to allow Commission staff to develop a high degree of expertise (JIESC Argument, p. 14).

#### Commission Determination

The Commission Panel is not persuaded that the need for an informal BCUC staff mediation service is sufficient to justify the cost of establishing such a service. The Commission Panel therefore approves the dispute resolution section of the OATT (Section 12).

## **10.0 BUSINESS PRACTICES**

### **10.1 Committee to Review Business Practices**

#### Distinction between Tariff and Business Practices and Bulletins

The distinction between tariff and business practices and bulletins must be clarified before addressing the need for a formal committee to review business practices. During the proceedings the following new subsection was added to the Hearing Issues List item No. 10 “BCTC Business Practices”: What is the appropriate test for the use of tariff and/or business practices and bulletins? Should business practices and bulletins be filed with the BCUC? (T7: 724-726).

While business practices were discussed extensively during the OATT proceeding, neither BCTC nor interested parties provided one clear definition of business practices. When asked by BC Hydro to describe the criteria used to determine which transmission terms, conditions and procedures will be specified in tariff provisions, and which will be specified in business practices, BCTC replied that its Business Practices are used to implement the Terms and Conditions (Exhibit B1-6, BC Hydro IR 2 25.5). BC Hydro distinguished that “...the rules by which we have to access the transmission system is the tariff. And the business practices are BCTC’s interpretation of those rules and how they structure their business to do that” (T9: 1325).

BC Hydro states that the Business Practices are very important to the implementation of the tariff. The tariff itself contains the principles guide the use of the transmission system. However, the tariff language is fairly general and reasonable people could come up with a variety of ways to achieve the same general principles. The Business Practices elaborate on how the Transmission Provider will actually achieve the principles established by the tariff (Exhibit B2-8, p. 14). From BCTC testimony, it also became evident that transmission entities in different jurisdictions may have different practices. A tariff of one entity in one jurisdiction can contain what for another entity in another jurisdiction would be a business practice (T5: 310-311).

### Review of Business Practices and Customer Consultation

BCTC states that its current practices in respect to the consultation and review of its Business Practices include annual customer workshops and visits to customers on an individual basis, typically twice a year and at their request. The workshops and customer visits are also supplemented by many telephone conferences throughout the year. In addition, when time permits, BCTC publishes proposed business practices and solicits customer feedback. Depending on the information customers provide about the impact the proposed practice may have, BCTC may confirm the practice, modify the practice and notify customers of it, publish a modified version or different practice for comment, or abandon the proposed practice. BCTC also states that it is considering the development of an “interactive internet bulletin board” to provide an open and transparent means to tracking customer positions on business practices (Exhibit B1-6, BC Hydro IR 2.25.2).

BCTC submits that it consulted with customers about their preferences and found that customers are satisfied with its current practices. BCTC also inquired into the business practices of other Transmission Providers, Control Areas and Independent System Operators. The conclusion from those inquiries was that BCTC’s approach to business practices is consistent with, if not better than, most approaches adopted by the other parties (BCTC Argument, p. 60, para.169).

### Requirement for a Formal Committee to Review Business Practices

BC Hydro suggested that BCTC’s Business Practices can be developed in a more transparent manner through a formal consultative committee that meets regularly and includes current and potential customers as well as Commission staff. A committee of this nature would afford an opportunity to meaningfully debate proposed business practices and their application. The committee would not be making binding decisions or have a voting structure. As a result, business practices would be developed consensually, with all parties informed about what the business practices are, their purpose and how they would be implemented. Any party that disagreed strongly about a particular business practice could bring an informed complaint to the Commission thereby effectively elevating the business practice to a tariff issue (Exhibit B2-8, p. 7; T9: 1322).

BC Hydro argues that the current practice of one-on-one consultation and the annual workshops is ad hoc, presents no opportunity for multi-party discussions, and affords BCTC with an inordinate degree of control of the process. It does not do an adequate job of explaining the rationale and implementation issues arising from the business practice. Moreover, in BC Hydro's view, once a business practice is adopted, it is programmed into BCTC's scheduling and dispatch systems and becomes expensive to undo or amend, and thereby further aggravates the issue (BC Hydro Argument, p. 17).

BCTC states that a formal committee to develop and review business practices would be redundant. It explains that customers tend to be unresponsive and not forthcoming in a group setting, such as the workshops BCTC currently holds. BCTC submits that customers do not engage in discussions as they do not wish to reveal their level of comprehension or strategies to competitors. Further, BCTC submits that a formal committee structure would be problematic due to the fact that the BCTC's customer base is not balanced in terms of the strength of representation of various stakeholders (Exhibit B1-18, pp. 4-5; T5: 315-316).

#### Commission Determination

The Commission Panel acknowledges the dilemma surrounding the distinction between tariff and business practices. The tariff has to be open, transparent and sufficiently specific yet flexible at the same time. The utility should endeavour to put as much specificity in the tariff as practicable, without being so prescriptive or complex that the tariff becomes incomprehensible or otherwise unworkable. While a very rigid tariff would ensure consistency in treatment among customers, the utility needs to have authority and latitude to make decisions regarding implementation of the tariff and the appropriate business practices to do so. Furthermore, tariff setting and business practices development should be viewed as an ongoing process, especially in an environment where the industry and, therefore, the tariff is evolving.

The Commission Panel reaffirms that the tariff must be approved by the regulator while the business practices need not be. The Commission Panel recommends that, if in doubt, the utility should include

the provision in the tariff. Business practices then provide further clarity as to how the tariff rules will be implemented.

The Commission Panel recognizes that BCTC has taken some positive steps by identifying where it believed it was beneficial to incorporate additional rules in the tariff, relative to the WTS Tariff or the FERC Order No. 888 Pro Forma tariff. Attachment J is an excellent example of such an addition. Accordingly, the Commission Panel encourages BCTC to continue to consider where further tariff rules may be appropriate, as patterns or issues evolve that would benefit from the clarity, consistency and regulatory approval obtained by incorporating them in the tariff.

The Commission Panel accepts BCTC's argument that its existing procedures for developing, adopting and disputing business practices under the proposed OATT are sufficient and satisfy customers' needs. These procedures were thoroughly investigated during the evidentiary stages of this proceeding. As a result, the Commission Panel finds that there is no requirement to establish a formal committee and that such a committee would not add much value under the current circumstances. This finding is further supported by lack of concern or dissatisfaction demonstrated by Intervenors other than BC Hydro. In light of continuous improvement, the Commission Panel encourages BCTC to develop an interactive internet bulletin board to provide even a more open and transparent means to tracking customer positions on business practices.

## **10.2 The OATT Business Practices Implementation Plan**

BCTC states that the new OATT cannot be implemented until its current business practices are updated to reflect the Commission's Decision. BCTC also envisions that it will use all of its existing customer/interested party consultation vehicles to conduct a thorough review of existing and new business practices needed to implement the OATT (Exhibit B1-6, BC Hydro IR 2 25.2).

BCTC filed a proposed OATT Business Practices Implementation Plan during the hearing. BCTC states that all business practices will need to be reviewed and analyzed for short-term and long-term transmission service to determine what type of amendments are required. In addition, interconnection

business practices will need to be developed. Work on this project will commence upon receiving and comprehending the Decision. The filed twelve-week implementation plan includes educational workshop presentations, two drafts of the proposed business practices and two written comment periods allowed for customers (Exhibit B1-30).

### Commission Determination

The Commission Panel finds the proposed OATT Business Practices Implementation Plan acceptable although it questions the practicality of the twelve-week time line that would coincide with the peak summer vacation season. The Commission Panel is also concerned that some valuable input may be lost due to the tight one week windows for comment.

Because of the tariff enforcement and monitoring concerns that surfaced during the proceedings, the Commission Panel has deliberated on the merits of filing business practices and bulletins with the Commission. A directive to file business practices for approval by the Commission would result in a rule-like treatment of those practices, which would introduce additional clarity and transparency. Given that the OATT and associated business practices are a product of a fundamental shift in the BC electricity industry that is currently underway, this level of oversight may be warranted for the time being. At the same time, the Commission Panel is reluctant to introduce an additional regulatory proceeding for every change in business practices, which could impede BCTC's interaction with its customers. While assessing the trade-offs the Commission Panel is cognizant of the power BCTC has when in interpreting the Tariff and changing business rules without regulatory oversight. Further, it should be noted that BCTC posts its business practices on the OASIS web site, and at any time customers can bring issues they may have to the Commission's attention.

**Accordingly, the Commission Panel directs BCTC to file a finalized set of Business Practices with the Commission, including a summary of customer comments received during the review process, for information purposes. On a go forward basis, however, BCTC need not file changes to business practices and new bulletins with the Commission as the Commission will continue to deal with customer concerns on an exception basis.**

## **11.0 TARIFF ENFORCEMENT, MONITORING AND REPORTING**

### Background

Although tariff enforcement and monitoring issues were not specifically identified on the OATT Hearing Issues List at the outset (except for Dispute Resolution) they were elevated for inclusion on the list due to the controversy surrounding compliance with Sections 28.4 and 28.6 of the WTS Tariff, the 1999 NE Purchasing with Alberta Exports Rule (Exhibit B1-29) and Network Economy. The Panel Chair ordered that the Hearing Issues List item No. 3 “Network Integration Customer Use of PTP Service” was supplemented with the following new subsection: What enforcement mechanisms are appropriate to ensure compliance with the tariff and/or business practices and bulletins? (T7: 724-725)

With regard to the procedural matters, the Panel Chair appointed a separate Commission Panel to review BC Hydro’s conduct with regard to the use of Network Economy. The mandate of that Panel is fairly narrow and retrospective. Furthermore, its findings and/or recommendations will not be available prior to the release of this Decision. The objective of this Section is to address tariff enforcement, monitoring and reporting from the broader perspective on a go-forward basis.

### Existing Framework

Section 82 (Power to inquire without applications) and section 83 (Action on complaints) of the UCA currently provide the Commission with broad powers to inquire into the actions of BCTC as long as the inquiry pertains to matters under the Commission’s jurisdiction. Section 12 of the proposed OATT provides for dispute resolution mechanisms which were addressed in Section 9 of this Decision.

On January 20, 2005, BCUC approved the Standards of Conduct for BCTC (Order No. G-12-05). The non-discrimination requirements of the document address information access, prohibited disclosure, exceptions and tariff implementation. To comply with the Standards of Conduct, when implementing a tariff, BCTC will strictly enforce all tariff provisions relating to the sale or purchase of open access transmission service, if these tariff provisions do not permit the use of discretion. BCTC will also

maintain a written log, available for Commission audit, detailing the circumstances and manner in which it exercised its discretion under any terms of the tariff. BCTC also filed a set of Written Procedures Implementing the Standards of Conduct with BCUC in November 2004.

### BCTC Proposal

BCTC submits that the powers and processes already available to the Commission are sufficient to ensure that the tariff provisions are properly enforced. However, enforcement could be further facilitated by enhanced reporting obligations for both BCTC and the Network Customer. With respect to BCTC's reporting obligations to the Commission, BCTC proposes as follows:

- BCTC will provide to the Commission, no later than the OATT implementation date, a report evaluating its business practices related to the use of Network Economy service. This report will advise the Commission of any amendments that BCTC proposes to make to its existing business practices, and will describe any new business practices that BCTC intends to introduce in respect of the use of Network Economy transactions. BCTC will consult with its stakeholders in the development of this report.
- BCTC will provide the Commission with a report, based on data of the form described by the Chair beginning at Tr. 8 p. 1063. Initially, this will be provided weekly, as per the Commission's letter to BCTC of March 15, 2005, although BCTC submits that a quarterly reporting period is more appropriate in the longer term (BCTC Argument, p. 29, para. 78).

With regard to BC Hydro's reporting obligations, BCTC suggests that for the Commission to satisfy itself that it can isolate appropriate from inappropriate use of Section 28.4 of the tariff, it will need the Network Customer to report on its intentions when it reserved transmission using Section 28.4 but ultimately chose not to use it. Similarly, BCTC would expect that BC Hydro could explain the circumstances around any apparent violation of business practices identified in the reporting provided to the Commission by BCTC (BCTC Argument, p. 30, para. 81).

AESO submits that it supports transparent mechanisms that provide tariff customers with insight as to how otherwise legal tariff provisions are interpreted and applied. However, devices used for these purposes cannot amount to an unapproved tariff amendment. The objectives of transparency and

regulatory oversight of BCTC's business practices in the future are essential in order to guard against this potential outcome (AESO Argument, p. 6).

### Commission Determination

The Commission Panel finds that the key elements of effective tariff enforcement and monitoring are the following:

- A clear and unambiguous tariff combined with transparent business practices;
- Appropriate monitoring activities to detect abuses; and
- Appropriate penalties or other mechanisms to enforce compliance when abuses are detected.

The Commission Panel also acknowledges that creation of a clear tariff is a continuous process. Robustness of any tariff rule can always be tested. Excessively strict monitoring and reporting procedures could easily paralyze the use of the transmission system. In light of the existing framework, which includes the OATT dispute resolution mechanism, UCA provisions and the new BCTC Standards of Conduct, the Commission Panel finds the BCTC proposal, on balance, acceptable.

Nevertheless, given the extent of the discussion around Network Economy use, the Commission Panel is not convinced that for this issue in particular the existing processes were adequately utilized and notes that BCTC needs to enhance its business systems to ensure future compliance. **Accordingly, the Commission Panel directs BCTC to file a report evaluating its business practices related to the use of Network Economy service and that BCTC continue to file the Network Economy Reports on a quarterly basis until otherwise directed by the Commission. Similarly, the Commission Panel directs BC Hydro to file quarterly reports on its rationale for situations when it reserved transmission capacity using the OATT Section 28.4 but ultimately chose not to use it.**

**Finally, the Commission Panel orders that the tariff enforcement, monitoring and reporting procedures be evaluated with the report due on December 31, 2006 as directed in Section 14.**

## **12.0 TRANSMISSION PLANNING ADVISORY COMMITTEE AND SYSTEM PLANNING**

In Section 2, when discussing the Energy Plan and SD9, the Commission Panel found that it is very important to ensure that the integral connections between the OATT, SD9 and System Planning will not be lost in the regulatory process in the long term. There are many difficult commercial, economic, cost-recovery and regulatory process issues related to the planning of the BCTC transmission system. This Section addresses these relationships in more depth.

### The OATT Proceeding Background

BCTC states that it has not given express consideration to Section 4 of SD9 to the BCUC in the OATT since the proposed OATT establishes the terms and conditions pursuant to which BCTC will build, provide, and charge for transmission service requested by customers (BCTC Argument, p. 2, para. 4). During Oral Argument BCTC further elaborated on the distinction between the OATT process and the capital planning process. While BCTC under the OATT will provide service to customers by way of building Network Upgrades requested by customers in accordance with the policies established in the tariff it will also look at system upgrade requirements on a broader basis and of its own volition in the capital planning process. BCTC expects to bring forward proposals for major investments for the Commission's approval in its Capital Plan where the proposed investments could be justified on the basis of estimated recoveries from potential PTP and NITS customers (T12: 1867-1868).

CBTE argues that the BC government has already set the template, by way of the Energy Plan and SD9, for how it sees the electricity industry evolving in the future in BC. Furthermore, CBTE submits it is important that the BCUC take a leadership role in implementing the policy decisions made by the government, to ensure open access becomes a reality and to ensure that the transmission requirements needed in the future are constructed in a timely manner.

CBTE states that it is essential that the Commission send a strong signal to BCTC that the utility should be more proactive in considering the future needs for transmission in system planning, especially in the development of major system upgrades. CBTE submits that it is well documented that the lack of

transmission development in North America has resulted in a need to re-evaluate the traditional way in which utilities and their regulators look at transmission investment. In CBTE's view, it is crucial that BCTC adopt responsible (but appropriately aggressive) system planning that not only promotes IPP development but also ensures that necessary transmission infrastructure development in BC occurs sooner rather than later. The OATT provides an opportunity to begin to establish new innovative guidelines for future transmission development (CBTE Argument, pp. 2-7).

BCOAPO submits that the OATT Application must be considered in the broader context of the substantive and substantial policy issues, which are presently unresolved and will require significant discussion and consideration by BCTC, BC Hydro, interested parties and the Commission (BCOAPO Argument, p. 2). In response to CBTE's position, BCOAPO argued that it is premature to start using the OATT proceeding to give BCTC direction regarding system planning, major upgrades and cost recovery. In the view of BCOAPO, the Transmission Planning Advisory Committee, established by BCTC, is the proper forum to advance the dialogue regarding the proper balance between reactive "don't build until they come" and proactive "build it and they will come" approaches. Further, the capital planning process is the proper regulatory process for dealing with these issues and receiving recommendations from the stakeholder consultative process. The record of those proceedings should be more useful to the Commission in giving direction to BCTC than the record of the OATT proceeding (T12: 1873-1874).

#### Transmission Planning Advisory Committee

TPAC is comprised of key stakeholders from industry, government and environmental groups. TPAC provides a forum for stakeholders to provide input into policy issues at a broad strategic and policy level. More specifically, this group was established to:

- Provide expert advice into the planning process related to the enhancement or expansion of the electric transmission system in BC and interties with neighbouring jurisdictions;
- Build a common understanding and create dialogue around the criteria used in transmission planning;

- Discuss and provide input into the planning assumptions and drivers used in this planning process;
- Provide input on BCTC's public engagement process; and
- Provide comment and input on any policy-related matters referred by BCTC.

TPAC has the mandate to provide advice and recommendations to BCTC. In the event that the committee does not agree on a sole recommendation, both the majority and minority viewpoints will be recorded. BCTC maintains the right to make final decisions (Exhibit B1-46).

CBTE states that TPAC is presently grappling with issues relating to future system planning and would therefore benefit greatly from a discussion of these issues in the Commission's decision. Accordingly, in keeping with SD9 and the Energy Plan CBTE urge the BCUC to provide as much proactive guidance as possible to BCTC on these issues in its OATT decision. TPAC can then assist BCTC with interpretation and implementation of BCUC guidelines (CBTE Argument, p. 7).

BCTC reaffirmed that planning and building transmission to enable electricity market participants to pursue greater market opportunities (Energy Plan goal) is a fundamental question of public policy. The Commission Panel disagrees with BCTC's position to some degree, refers to discussion in Section 2.1, and notes that SD9 establishes planning and building transmission to enable electricity market participants to pursue greater market opportunities is within the regulatory mandate of the BCUC. A question that continues to be front and centre for TPAC is the extent to which transmission investment should be seen as a public infrastructure undertaken on a "build it and they will come" basis (T5: 281-282).

#### Possible Activities Within OATT

BCTC acknowledged that besides establishing TPAC and continuing to enhance its capital planning process, it can improve its system planning process within OATT as well. By way of communication activities, for instance, BCTC can concentrate its efforts within areas where there are indications of

potential clusters of IPPs. By bringing the parties together and facilitating dialogue, BCTC can increase the probability of an upgrade going ahead. In a more proactive fashion, BCTC could contemplate specific issues that needed reconciliation and then seek, in a more traditional gas pipeline type open season, a movement towards a particular resolution of a problem.

BCTC agreed that it has more ideas and possible solutions but cautioned that all those ideas potentially contain a greater degree of risk, require more resource capability and require more development. Should TPAC, BCUC and the market in general indicate a need to be more proactive, BCTC will be able to move the solutions available within OATT forward (T8: 977-978).

### Commission Determination

The Commission Panel notes that BCTC is responsible for planning and operating a safe and reliable transmission system to meet the existing and growth demands for transmission capacity of its customers. The key drivers for BCTC's growth planning currently are the service agreement based transmission service requirements by NITS customers and PTP customers. Today, BCTC is not planning to build transmission capacity for commercial electricity market purposes even though the SD9 has paved the road for it to do so. As a first step toward that direction, BCTC has begun a dialogue through TPAC on whether it would be appropriate to invest in additional transmission capacity in advance of signed service agreements.

The Commission Panel also recognizes that the time lag challenge continues to be a major impediment to system expansion in the current environment. Because of the long lead time required for transmission construction vis-à-vis shorter lead time for generation capacity, the reactive approach presented in the OATT framework appears inadequate on its own for comprehensive system planning. In other words, if transmission expansion planning responds to the market by proceeding to build only after receipt of signed contracts, the new capacity may arrive too late to meet the demand. The other dimension of the timing issue is finding sufficient customer support for the large, lumpy investments at the same time.

Moreover, the Commission Panel appreciates the challenges of proactive system planning and investing ahead of committed demand in order to facilitate electricity market activity. Questions related to risk

and intergenerational equity issues, among others, need to be answered in the public policy framework. Proactive transmission system planning and building is a major challenge facing most system operators in North America which can not be resolved overnight. Nevertheless, a precise problem definition and a few small incremental steps would offer a good starting point.

First, the Commission Panel encourages BCTC to introduce additional innovative approaches to addressing large, lumpy transmission system upgrades in its next OATT filing. Second, the Commission will continue to enhance its capital plan and REAP review processes to ensure that the linkage to the OATT is not lost. **Finally, to ensure that the OATT, capital planning process and TPAC activities continue to be synchronized, the Commission Panel directs that BCTC through its consultation with TPAC prepare a discussion paper on the topic of Planning New Transmission Ahead of Contracted Need in BC and file it with the Commission when it is issued by the TPAC and BCTC or by March 31, 2006, whichever is earlier. This paper should include scope definition and address investment risk, cost allocation and recovery, broader economic benefits, criteria for identification and evaluation of potential transmission expansions, and any other relevant topics.**

### **13.0 RETAIL ACCESS FOR INDUSTRIAL CUSTOMERS**

Policy Action 14 states: “Under new rates, large electricity consumers will be able to choose a supplier other than the local distributor.” In response to this Policy Action, BCTC proposes to make large retail customers, defined as those on BC Hydro’s Rate Schedule 1821, eligible for open access transmission service (Exhibit B1-1, pp. 15, 22).

BCTC states that during the Commission’s Heritage Contract and Stepped Rates Inquiry, BCTC committed to address issues related to retail access as part of its tariff design process. However, during the course of BCTC’s consultation process, it became clear to BCTC that industrial customers saw implementing retail access through BCTC’s OATT as both cumbersome and risky. Instead, they proposed an approach akin to buy/sell arrangements in the natural gas industry that would use BC Hydro’s NITS contract with BCTC, and BC Hydro’s new stepped rate bundled industrial service tariff, as the basis for providing retail access (Exhibit B1-1, p. 21).

BCTC understands that the proposed form of “retail access” would work in the following way. Stepped rate customers would secure a bilateral arrangement with an energy supplier, and this supplier would then provide energy to BC Hydro for resale to the stepped rate customer at the agreed price. The price for that portion of delivered energy to the stepped rate customer by BC Hydro would, in turn, be equivalent to the agreed price between that customer and the energy supplier. The energy supplier would become a Network Resource of BC Hydro, and BC Hydro would use its NITS contract to deliver the energy from the energy supplier to the stepped rate customer. In a model such as this, the stepped rate customer never becomes a customer of BCTC and, therefore, is never charged directly under the OATT. BCTC recovers its transmission system costs from BC Hydro. BCTC submits that the manner in which BC Hydro then recovers its costs for transmission service from the stepped rate customer – both as part of its bundled delivery of “heritage” energy and, to the extent appropriate, for the delivery of third-party-supplied energy – is a matter for the stepped rate design. BCTC notes the Commission has already ruled that the stepped rate design should be considered in a subsequent BC Hydro proceeding (Exhibit B1-4, BCUC IR 1 1.1).

BCTC indicates this proposal was discussed in meetings between the industrial customers, BCTC, BC Hydro, and Commission staff. BCTC believes that all parties support the industrial customers' proposal for industrial retail access. Therefore, BCTC did not include in this Application a proposal for specific retail transmission tariffs, or mechanisms to otherwise facilitate retail access. Instead, BCTC expects that BC Hydro will incorporate such provisions as are necessary to implement the Industrial Customers' Proposal as part of its Stepped Rate filing, which BCTC understands will take place in 2005.

Nevertheless, BCTC still wishes to accommodate any retail customers that wish to make use of its OATT and therefore requests that the Commission acknowledge that industrial customers served under BC Hydro's Rate Schedule 1821 are eligible to use BCTC's OATT (Exhibit B1-1, p. 22).

This issue was not further discussed by Intervenors throughout the proceeding.

#### Commission Determination

The Commission Panel notes that while it appears unlikely that industrial customers may be interested in becoming direct customers of BCTC under the OATT, it accepts BCTC's recommendation that within the current policy framework, such an arrangement should not be precluded.

**The Commission Panel approves that industrial customers served under BC Hydro's Rate Schedule 1821 or a successor to Rate Schedule 1821 are Eligible Customers under the OATT.**

## 14.0 COMMISSION CONCLUSIONS

With this Decision and for the first time, BCTC is receiving directions from the Commission regarding the design of its rates. As reviewed in Section 2, the Application was filed within the context of an important policy framework. BCTC has demonstrated a desire to advance the policy objective of increased system utilization by seeking approval for rate design changes. Those changes were proposed after considering both policy objectives and stakeholder interests. However, BCTC by its own admission approached the Application as merely a “tune-up” rather than a rebuild of the WTS Tariff, which itself was largely based on the FERC Order No. 888 Pro Forma Tariff established around the 1996-1997 time frame. Thus, the Commission Panel encourages BCTC to consider its OATT Application as the first step in the evolution of rate design at BCTC.

The Commission Panel has provided reasons why it may be appropriate for BCTC to review the methodology for the determination of LTF PTP rates, as primarily discussed in Section 4. Although this Decision approves the basic LTF PTP rate methodology, the Commission Panel finds that the evidence suggests that fundamental changes to that methodology may be appropriate in the future. Otherwise, rates designed to increase system utilization may continue to give rise to eligibility criteria concerns that were significant factors in the Decision to deny approval of the BC Clean rate. Establishing eligibility criteria not adequately supported by cost analysis can reasonably be expected to be insufficiently robust to be approved by the Commission.

**As noted in Sections 4.1 and 4.4, the Commission Panel therefore directs BCTC to review the options for more fundamental rate design changes, and to report to the Commission by December 31, 2006. In support of this, the Commission Panel directs BCTC to undertake a study that investigates the relationship between particular characteristics of use or users (e.g. capacity factor, size, energy source, time of use, etc.) and cost causality of the transmission system. Based on preliminary analysis of the study results or of the then current investigations, BCTC should discuss in the report whether or not the study results suggest or are likely to suggest that revisions to the OATT rate structures may be appropriate. The report should address the timing of and manner in which BCTC may incorporate the results of such a study to effect alternative forms of**

**PTP rates that could further enhance utilization of the transmission system while still reflecting a degree of cost causality. BCTC should include in its report a preliminary recommendation with supporting reasons either for revisions to the OATT rate structures or for maintaining the status quo.**

In addition to addressing rate design as described above, the report to the Commission should at a minimum also address the following matters, as indicated in the Commission Determinations in previous Sections of this Decision:

- the appropriateness of a change to the Load Ratio Share approach for NITS billing of Network Customers, particularly if more Network Customers materialize prior to December 2006. Reasons for either changing or not changing the approach should be supported by a discussion of the volatility of Network Customers' bills using the Load Ratio Share as well as the stability of the resulting revenue (Section 3.1).
- a summary of the use of LTF Shaped Service, commenting on any evident implications of its use relative to present concerns about available capacity or service degradation (Section 4.3).
- an evaluation that details the amount of short-term firm and non-firm energy trade that flows in the opposite direction of the market prices used in the approved formula, an assessment of the incremental impact of the directional formula on the percentage of blocked hours and on revenues, and commentary on the amount of trade that would have occurred in the opposite direction of market prices despite the directional component (Section 5.0).
- an evaluation of tariff enforcement, monitoring and reporting procedures (Section 11).

The Commission Panel has approved BCTC's proposals for tariff enforcement, monitoring and reporting. During the proceeding, it became evident that BCTC's systems for monitoring scheduling on the transmission system need to be improved. The Commission Panel has not accepted the Network Customer's proposals related to stakeholder consultations and dispute resolution. However, the evidence does suggest that the design of stakeholder consultations and dispute resolution mechanisms should be reviewed with the next major OATT application.

The Decision has approved several changes from the WTS Tariff designed to facilitate the expansion of the system such as the investment policy, the open season, and Attachment J. BCTC has also been directed to report on whether or not those tariff changes accomplished their stated objectives. The

Network Customer's obligation to meet load requirements distinguishes the Network Customer from other users of the system. The evidence in this proceeding, particularly as related to the CEAP, suggests that BCTC needs to ensure that it has given full consideration to all of the Network Customer's requirements to meet its obligation to serve.

At the same time, BCTC has an obligation to give consideration to the interest of all customers, including customers that may be using the system for transmission through BC. The evidence in this proceeding suggests that BCTC has more work to do to monitor and address issues arising from the 1999 Rule regarding the use of Network Economy. BCTC has been able to advance many of the policy objectives relevant to the decision to establish an independent Transmission Provider in BC. However, positions advanced in this proceeding by many of the participants, particularly AESO, CPC, IPPBC, Cloudworks and CBTE, suggest that more fundamental rate design changes may be necessary before it has met the expectations of the users of the transmission system.

## 15.0 SUMMARY OF APPROVALS AND DIRECTIVES

This Summary is provided for the convenience of readers. In the event of any difference between the Approvals and Directions in this Summary and those in the body of the Decision, the wording in the Decision shall prevail.

| <b>Approvals and Directives</b>   | <u>Decision<br/>Page No.</u> |
|---|------------------------------|
| 1. The Commission Panel approves the proposed approach to calculate the rate for NITS.  | 16                           |
| 2. The Commission Panel approves a 60 Calendar Day period to execute a NITS Agreement, as specified in section 32.4 of the OATT Terms and Conditions.   | 17                           |
| 3. The Commission Panel orders BCTC to amend the proposed Attachment J to include an allowance for contingency plans of Network Customers. However, these transmission reservation contingencies should be limited to load forecasts and resource plan contingencies approved by the Commission. Subject to the amendment to allow BCUC approved contingencies, the Commission Panel approves Attachment J. | 21                           |
| 4. The Commission Panel directs that Attachment J be reviewed after completion of the next two 12-month cycles described in Attachment J, which commence with the Annual Load and Resource Information Updates in accordance with Section 31.6 of the OATT. BCTC is to file a status report within three months of completion of the second 12-month cycle.   | 22                           |
| 5. The Commission Panel denies the AESO request to eliminate the provision of Network Economy in the OATT.  | 27                           |

**Approvals and Directives****Decision  
Page No.**

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| 6.  | Given the Commission Panel’s findings on Receipt and Delivery Point Flexibility and the Free Option, the Commission Panel denies AESO’s proposed restriction as unwarranted.   | 33 |
| 7.  | The Commission Panel approves the proposed method for setting the LTF PTP rate.  | 37 |
| 8.  | The Commission Panel directs BCTC to undertake a study and review the options for more fundamental changes to its rate design for the December 2006 report discussed in Section 14. In particular, the report should discuss alternative forms of PTP rates that could further enhance utilization of the transmission system while still reflecting a degree of cost causality.   | 37 |
| 9.  | The Commission Panel accepts that the Deferral Credit should not be made available to end-use customers of BC Hydro.   | 40 |
| 10. | The Commission Panel directs BCTC to file a re-dispatch tariff as soon as practicable, and report to the Commission at fiscal year end, if the re-dispatch tariff has not been filed by that time.   | 40 |
| 11. | The Commission accepts the IPPBC submissions for a greater than 50 percent sharing of the “before” and “after” amount, and given BCTC’s forecast requirements for investments in transmission facilities, the Commission concludes that a stronger location-specific price signal to new generators that defer transmission projects is appropriate. Therefore, the Commission Panel approves the proposed Deferral Credit modified to reflect a sharing of the “before” and “after” amount on the basis of 75 percent to the new generator. | 41 |

**Approvals and Directives****Decision  
Page No.**

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| 12. | The Commission Panel accepts BCTC's submissions that only cost savings from the deferral of capital expenditures should be included in the calculation of the Deferral Credit.  | 42 |
| 13. | The Commission Panel approves the LTF Shaped Service inclusive of BCTC's revisions to the roll-over provisions in the OATT Terms and Conditions.  | 47 |
| 14. | The Commission Panel directs BCTC to include in the December 2006 report, discussed in Section 14, a summary of the use of LTF Shaped Service, commenting on any evident implications of its use relative to present concerns about available capacity or service degradation.  | 47 |
| 15. | The Commission Panel denies the proposal for a BC Clean Rate.   | 52 |
|     | Accordingly, the Commission Panel directs BCTC to undertake a study and review the options for more fundamental changes to its rate design for the December 2006 report discussed in Section 14. In particular, the report should discuss alternative forms of PTP rates that could further enhance utilization of the transmission system while still reflecting a degree of cost causality. |    |
| 16. | The Commission Panel approves the ST PTP rate design and the associated Terms and Conditions for ST PTP service as filed.   | 59 |
| 17. | Given this uncertainty, the Commission Panel directs BCTC to include in the December 2006 report, discussed in Section 14, an evaluation of the directional aspect of short-term service price discounting.   | 60 |

**Approvals and Directives****Decision  
Page No.**

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| 18. | The Commission Panel approves the Open Season and Clustering proposals, and the applicable revised Terms and Conditions as filed.  | 65 |
| 19. | The Commission Panel approves BCTC's proposal, as revised, for relief for BC Hydro from the OATT's interconnection procedures for its 2005 CEAP.   | 68 |
| 20. | BCTC is directed to revise the OATT Terms and Conditions, as last modified by Exhibit B1-27, to give effect to all of the previous determinations and in accordance with the following directions.   | 69 |
| 21. | The Commission Panel approves the Network Upgrade policy, as provided for in Attachment K of the proposed OATT, with the exception of the up-front payment required in accordance with clause D.1(a). The Commission Panel directs BCTC to revise Attachment K to reflect that a Letter of Credit, cash or equivalent security may be used instead of the requirement for an up-front payment. | 78 |
| 22. | The Commission Panel approves the proposed capacity related AS Schedules 103, 104, 105, 107 and 108.   | 81 |
|     | Correspondingly, the Commission Panel orders BC Hydro Tariff Supplement 30 and Schedules 3003, 3004, 3005, 3007 and 3008 be closed.  |    |
| 23. | The Commission Panel approves Rate Schedules 06 and 106 as submitted in Exhibit B1-23. Correspondingly, the Commission Panel orders BC Hydro Tariff Supplement 30 and Schedule 3006 be closed.   | 84 |

**Approvals and Directives****Decision  
Page No.**

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| 24. | The Commission Panel denies the request for approval of Loss Compensation Service Rate Schedules 09 and 109. The Commission Panel orders BC Hydro Tariff Supplement 30 and Schedule 3009 be closed.  | 85 |
| 25. | The Commission Panel accepts BCTC's initiative to purchase IOS from other suppliers and agrees it is consistent with the intent of the Energy Plan, and therefore agrees the terms of payment and supply related to reactive power are appropriately addressed in a commercial agreement between the IPP and BCTC.   | 86 |
| 26. | The Commission Panel approves Schedule 3011 as provided in Exhibit B2-19 for the reasons provided in Section 7, and also approves Schedules 3012, 3013, 3014, and 3015.  | 88 |
| 27. | The Commission Panel directs BCTC to file a finalized set of Business Practices with the Commission, including a summary of customer comments received during the review process, for information purposes. On a go forward basis, however, BCTC need not file changes to business practices and new bulletins with the Commission as the Commission will continue to deal with customer concerns on an exception basis.   | 95 |
| 28. | The Commission Panel directs BCTC to file a report evaluating its business practices related to the use of Network Economy service and that BCTC continue to file the Network Economy Reports on a quarterly basis until otherwise directed by the Commission. Similarly, the Commission Panel directs BC Hydro to file quarterly reports on its rationale for situations when it reserved transmission capacity using the OATT Section 28.4 but ultimately chose not to use it. | 98 |

The Commission Panel orders that the tariff enforcement, monitoring and reporting procedures be evaluated with the report due on December 31, 2006 as directed in Section 14.

**Approvals and Directives**Decision  
Page No.

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|-----|---|-----|
| 29. | To ensure that the OATT, capital planning process and TPAC activities continue to be synchronized, the Commission Panel directs that BCTC through its consultation with TPAC prepare a discussion paper on the topic of Planning New Transmission Ahead of Contracted Need in BC and file it with the Commission when it is issued by the TPAC and BCTC or by March 31, 2006, whichever is earlier. This paper should include scope definition and address investment risk, cost allocation and recovery, broader economic benefits, criteria for identification and evaluation of potential transmission expansions, and any other relevant topics.  | 103 |
| 30. | The Commission Panel approves that industrial customers served under BC Hydro's Rate Schedule 1821 or a successor to Rate Schedule 1821 are Eligible Customers under the OATT.  | 105 |
| 31. | The Commission Panel therefore directs BCTC to review the options for more fundamental rate design changes, and to report to the Commission by December 31, 2006. In support of this, the Commission Panel directs BCTC to undertake a study that investigates the relationship between particular characteristics of use or users (e.g. capacity factor, size, energy source, time of use, etc.) and cost causality of the transmission system. Based on preliminary analysis of the study results or of the then current investigations, BCTC should discuss in the report whether or not the study results suggest or are likely to suggest that revisions to the OATT rate structures may be appropriate. The report should address the timing of and manner in which BCTC may incorporate the results of such a study to effect alternative forms of PTP rates that could further enhance utilization of the transmission system while still reflecting a degree of cost causality. BCTC should include in its report a preliminary recommendation with supporting reasons either for revisions to the OATT rate structures or for maintaining the status quo. | 106 |

Dated at the City of Vancouver, in the Province of British Columbia, this 20th day of June 2005.

*Original signed by:*

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Robert H. Hobbs  
Chair

*Original signed by:*

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Liisa A. O'Hara  
Commissioner

**BRITISH COLUMBIA  
UTILITIES COMMISSION**

**ORDER  
NUMBER G-58-05**

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**IN THE MATTER OF**

the Utilities Commission Act, RSBC 1996, Chapter 473, as amended

and

British Columbia Transmission Corporation  
Application for an Open Access Transmission Tariff

and

British Columbia Hydro and Power Authority  
Interconnected Operations Services to British Columbia Transmission Corporation

**BEFORE:**

R.H. Hobbs, Chair

L.A. O'Hara, Commissioner

June 19, 2005

**ORDER**

**WHEREAS:**

- A. British Columbia Transmission Corporation ("BCTC") filed, on August 3, 2004, an application for an Open Access Transmission Tariff ("the OATT Application") pursuant to Sections 58, 59 and 60 of the Utilities Commission Act ("the Act"); and
- B. British Columbia Hydro and Power Authority ("BC Hydro") filed, on August 3, 2004, an application to establish rates, terms and conditions for Interconnected Operations Services ("the IOS Application") to be offered to BCTC once it becomes responsible for offering and providing transmission services through the OATT; and
- C. Order No. G-81-04, dated August 20, 2004, directed that the IOS Application would be heard at the same time as the BCTC OATT Application and that there would be one record for both Applications; and
- D. Order No. G-81-04 established a Regulatory Timetable for the Applications leading to an oral public hearing to commence on Tuesday, January 4, 2005; and
- E. Order No. G-92-04, dated October 7, 2004, amended the Regulatory Timetable in response to a BCTC request for an extension to the deadline for its response to information requests; and

**BRITISH COLUMBIA  
UTILITIES COMMISSION**

**ORDER  
NUMBER** G-58-05

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- F. Order No. G-120-05, dated December 24, 2004, amended the Regulatory Timetable to resolve a scheduling conflict with another Commission proceeding; and
- G. An oral public hearing proceeded in Vancouver, BC on February 28, 2005 through March 8, 2005; and
- H. Written Final Arguments and Reply Arguments were completed by April 12, 2005; and
- I. The Commission Panel heard Oral Argument by parties on April 19, 2005.

**NOW THEREFORE** the Commission orders as follows:

1. The OATT Application, as revised by Exhibits B1-7 and B1-27, including the OATT Terms and Conditions of Service, rate design and new Interconnection Tariff, is approved subject to the determinations and directions contained in the attached Decision.
2. Industrial customers served under BC Hydro Rate Schedule 1821 or a successor to Rate Schedule 1821 are Eligible Customers under the OATT.
3. BC Hydro's Tariff Supplement No. 30 and Rate Schedules 3003 to 3010 are closed as at the effective date of the OATT.
4. BC Hydro Rate Schedule 3011, as amended in Exhibit B2-19, and Rate Schedules 3012, 3013, 3014 and 3015 are approved.
5. The Commission will accept, subject to timely filing, amended tariff pages from BCTC and BC Hydro, which conform to the attached Decision.
6. BCTC and BC Hydro are to comply with the respective directions contained in the attached Decision.

**DATED** at the City of Vancouver, in the Province of British Columbia, this 19 day of June, 2005.

BY ORDER

*Original signed by:*

R.H. Hobbs  
Chair

GLOSSARY AND ABBREVIATIONS

| Acronym   | Term  |
|---|---|
| “Application”, “OATT Application”, “BCTC Application” | BCTC’s Open Access Transmission Tariff Application dated August 3, 2004 as amended by Exhibits B1-7 and B1-27   |
| “IOS Application”, “BC Hydro Application”             | BC Hydro’s Interconnected Operations Services Application dated August 3, 2004  |
| AESO  | Alberta Electric System Operator  |
| Alberta   | Alberta Power Pool  |
| AS  | Ancillary Services  |
| ATC   | Available Transmission Capacity   |
| BC Hydro  | British Columbia Hydro and Power Authority  |
| BCOAPO  | The BC Old Age Pensioners Organization et al.   |
| BCTC  | British Columbia Transmission Corporation   |
| BCUC or Commission                                    | British Columbia Utilities Commission   |
| CBTE  | CBT Energy  |
| CEAP  | Competitive Energy Acquisition Process  |
| CEC   | Commercial Energy Consumers of British Columbia   |
| CIAC  | Contributions in aid of construction  |
| COB   | California-Oregon Border  |
| Cost of Market Deferral Account                       | An account to capture differences between forecast and actual costs for AS and other cost of market expenses such as redispatch costs.  |
| CPC   | Columbia Power Corporation  |
| Designated Agreements                                 | Five key agreements which are designated by Order in Council No. 1083 and which establish the relationship between the transmission owner (BC Hydro) and the transmission operator (BCTC). The most central of these to the Open Access Transmission Tariff application is the Master Agreement |
| Energy Plan   | Energy for Our Future: A Plan for BC  |
| ERIS  | Energy Resource Interconnection Service   |
| FERC  | Federal Energy Regulatory Commission  |
| Firm Cap rate   | Maximum short-term rate for ST PTP service  |

| Acronym                            | Term  |
|------------------------------------|---|
| FNR's                              | Forecast network resources  |
| Grid West                          | A non-profit membership corporation engaged in development work for a future operational stage in which it would be an independent entity responsible for managing use and expansion of the transmission grid in the western U.S. and Canada. |
| HLH                                | Heavy load hour   |
| IEP                                | Integrated Electricity Plan   |
| IOS                                | Interconnected Operations Services  |
| IPPBC                              | Independent Power Producers Association of British Columbia   |
| IPP                                | Independent power producer  |
| ISO, Mid-West ISO, New England ISO | Independent System Operators  |
| JIESC                              | Joint Industry Electricity Steering Committee   |
| Load Ratio Share                   | The quotient of a particular Network Customer's monthly coincident peak load and the total of all Network Customers' monthly coincident peak load   |
| LLH                                | Light load hour   |
| LRIC                               | Long Run Incremental Cost   |
| LT PNF                             | Long Term Priority Non-Firm PTP Service   |
| LT PTP, LTF PTP                    | Long Term (Firm) Point to Point Service   |
| LTF Shaped Service                 | Long-Term Firm Shaped PTP Service   |
| Master Agreement                   | Master Agreement between BC Hydro and BCTC Dated as of November 12, 2003  |
| Mid-C                              | Mid-Columbia  |
| Net TRR                            | TRR less expected supplemental revenues from Scheduling and Dispatch services and Engineering services  |
| Network TRR                        | Network transmission revenue requirement  |
| NITS                               | Network Integration Transmission Service  |
| NRIS                               | Network Resources Integration Service   |

| <b>Acronym</b> | <b>Page</b> | <b>Term</b>   |
|----------------|-------------|---|
| OATT           |             | Open Access Transmission Tariff as amended by Exhibits B1-7 and B1-27 |
| PODs           |             | Points of Delivery  |
| PORs           |             | Points of Receipt   |
| PTP            |             | Point-to-Point  |
| REAP           |             | Resource Expenditure and Acquisition Plan                             |
| RSVC           |             | Reactive Supply and Voltage Control                                   |
| SD9            |             | Special Direction No. 9 to the BCUC                                   |
| SD HC2         |             | Heritage Special Direction No. HC2 to the BCUC                        |
| SGIA           |             | Standard Generator Interconnection Agreement                          |
| SGIP           |             | Standard Generator Interconnection Procedures                         |
| ST PTP         |             | Short Term Point to Point   |
| TCA            |             | Transmission Corporation Act  |
| TCE            |             | TransCanada Energy Ltd.   |
| TPAC           |             | Transmission Planning Advisory Committee                              |
| TRR            |             | Transmission revenue requirement                                      |
| UCA or Act     |             | Utilities Commission Act  |
| WACC           |             | Weighted average cost of capital                                      |
| WACD           |             | Weighted average cost of debt   |
| WTS Tariff     |             | Wholesale Transmission Services Tariff                                |

## LIST OF APPEARANCES

|  |   |
|--|---|
| G.A. FULTON<br>P. MILLER                             | Commission Counsel  |
| I. WEBB<br>J. CHRISTIAN                              | BC Hydro and Power Authority  |
| P. FELDBERG<br>C. BYSTROM<br>M. GHIKAS<br>R. EZEKIEL | British Columbia Transmission Corporation   |
| D. PERTULLA  | Terasen Gas Inc.  |
| B. DUNCAN<br>F. WEISBERG                             | Columbia Power Corporation<br>Columbia Basin Trust Joint Ventures   |
| R.B. WALLACE   | Joint Industry Electricity Steering Committee   |
| D. NEWLANDS  | Elk Valley Coal Corporation   |
| D. AUSTIN<br>K. BOUCHER                              | Independent Power Association of British Columbia   |
| C.P. WEAVER  | Commercial Energy Consumers of British Columbia   |
| R.J. GATHERCOLE<br>P. MACDONALD                      | B.C. Old Age Pensioners' Organization<br>Council of Senior Citizens' Organizations of BC<br>Senior Citizens Association of British Columbia<br>West End Seniors Network<br>Federated Anti-Poverty Groups of BC<br>End Legislated Poverty<br>Tenants Rights Action Coalition |
| J. CAMPBELL  | For himself   |
| P. COCHRANE  | City of New Westminster   |
| D. FITZGERALD  | Norske Skog Canada Limited  |
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Court Reporter

**EXHIBIT LIST**

| <b>Exhibit No.</b>          | <b>Description</b>   |
|-----------------------------|--|
| <i>Commission Documents</i> |  |
| A-1                         | Commission letter dated August 4, 2004 and Order No. G-74-04 dated August 4, 2004 regarding an Open Access Transmission Tariff   |
| A-2                         | Commission letter dated August 10, 2004, Pre-hearing Conference No. 1 Agenda and draft Regulatory Timetable  |
| A-3                         | Commission letter dated August 20, 2004 and Order No. G-81-04 and Regulatory Agenda combining the BCTC Open Access Transmission Tariff Application and the BC Hydro Interconnected Operations Services to BCTC Application into one proceeding |
| A-4                         | Commission letter dated August 23, 2004 enclosing Commission Information Request No. 1 to BCTC   |
| A-5                         | Commission letter dated August 24, 2004 regarding Workshop Details and Participant Cost Award Budgets  |
| A-6                         | Commission letter dated September 17, 2004 enclosing Commission Information Request No. 1 to BC Hydro  |
| A-7                         | Commission letter dated September 17, 2004 enclosing Commission Information Request No. 2 to BCTC  |
| A-8                         | Commission letter dated September 17, 2004 denying the BC Citizens' for Public Power request for an extension to the filing date for its Information Request No. 2   |
| A-9                         | Commission letter dated October 7, 2004 and Order No. G-92-04 amending the Regulatory Timetable  |
| A-10                        | Commission letter dated November 9, 2004 enclosing Commission Information Request No. 3 to BCTC  |
| A-11                        | Commission letter dated November 9, 2004 enclosing Commission Information Request No. 2 to BC Hydro  |
| A-12                        | Letter dated December 2, 2004 confirming the date, time and location for Pre-hearing Conference No. 2  |
| A-13                        | Letter dated December 10, 2004 to British Columbia Hydro and Power Authority, British Columbia Transmission Corporation and Registered Intervenor regarding the opportunity to identify of issues at the Pre-hearing Conference No. 2          |

| Exhibit No. | Description   |
|-------------|---|
| A-14        | Order No. G-120-04 and letter dated December 24, 2004 setting out Amended Regulatory Timetable  |
| A-15        | Letter and Commission Information Request No. 1 to the Joint Industry Electricity Steering Committee dated January 10, 2005   |
| A-16        | Letter and Commission Information Request No. 1 to the Independent Power Producers Association of British Columbia dated January 10, 2005   |
| A-17        | Letter and Commission Information Request No. 1 to Columbia Power Corporation dated January 10, 2005  |
| A-18        | Letter and Commission Information Request No. 3 to British Columbia Hydro and Power Authority dated January 10, 2005  |
| A-19        | Letter and Commission Information Request No. 3 to CBT Energy dated January 12, 2005  |
| A-20        | Letter and Commission Information Request No. 3 to The Alberta Electric System Operator dated January 12, 2005  |
| A-21        | Letter to all participants dated February 10, 2005 regarding the public hearing process for the BCTC Open Access Transmission Tariff Application and the BC Hydro Interconnected Operations Services Application                              |
| A-22        | Letter No. L-11-05 dated February 11, 2005 requesting participants to provide comments on BC Hydro's application for leave to file evidence rebutting the Alberta Electric System Operator Evidence filed on December 17, 2004 (Exhibit C9-5) |
| A-23        | Letter and Staff Issues List dated February 15, 2005  |
| A-24        | Letter and Hearing Issues List dated February 25, 2005  |
| A-25        | Excerpt from the National Transmission Grid Study issued May 2002 by the US Department of Energy (referenced on page 19 of the JIESC Evidence in Footnote 10)   |
| A-26        | Excerpt from the 2003 Annual Report entitled "Making Electricity fair, efficient & competitive" of the Market Surveillance Administrator Report   |

*Applicant Documents*

|      |   |
|------|---|
| B1-1 | <b>BC Transmission Corporation</b> Open Access Transmission Tariff Application dated August 3, 2004 |
| B1-2 | Notice of Pre-Hearing Conference dated August 5, 2004   |

| <b>Exhibit No.</b> | <b>Description</b>  |
|--------------------|---|
| B1-3               | Notice of Intervention dated August 24, 2004 relating to BC Hydro's Application for Interconnected Operations Services to British Columbia Transmission Corporation   |
| B1-4               | BCTC letter and response dated September 10, 2004 to Commission Information Request No. 1   |
| B1-5               | BCTC October 5, 2004 letter requesting a two week extension of the time in which to respond to the second series of Information Requests from Intervenor and the Commission   |
| B1-6               | <p>BCTC letter and response dated October 22, 2004 to Commission Information Request No. 2 and to Intervenor Information Requests as follows:</p> <ul style="list-style-type: none"><li>• Alberta Electric System Operator (AESO)</li><li>• BC Hydro</li><li>• BC Old Age Pensioners Organization et al. (BCOAPO)</li><li>• Commercial Energy Consumers of BC (CECBC)</li><li>• Cloudworks</li><li>• Columbia Power Corporation (CPC)</li><li>• BC Citizens for Public Power (CPP)</li><li>• Independent Power Producers of BC (IPPBC)</li><li>• Joint Industry Electrical Steering Committee (JIESC)</li><li>• City of New Westminster</li><li>• Willis Energy Services Ltd.</li></ul> |
| B1-6A              | <p>Excel files and IR Attachments from Exhibit B1-6 as follows:</p> <ul style="list-style-type: none"><li>• AESO Data Files</li><li>• BC Hydro Data File</li><li>• BCUC Data File</li><li>• CPP IR Attachments</li></ul>  |
| B1-6B              | Letter dated April 12, 2005 advising of a correction to the BCTC response to an Information Request from the Alberta Electric System Operator (AESO)  |
| B1-7               | <p>BCTC letter dated October 29, 2004 filing the following:</p> <ul style="list-style-type: none"><li>• Revision to BCUC IR-2, Question 20.2</li><li>• Revised Open Access Transmission Tariff Terms and Conditions</li><li>• Revised Standard Generator Interconnection Agreement</li><li>• Revised Rate Sheets</li></ul>  |

| <b>Exhibit No.</b> | <b>Description</b>  |
|--------------------|---|
| B1-8               | BCTC blackline further revision dated November 1, 2004 to the amended response to BCUC IR No. 2, Question 20.2  |
| B1-9               | BCTC Information Request No. 1 to BC Hydro – Interconnected Operations Services to British Columbia Transmission Corporation dated November 10, 2004  |
| B1-10              | BCTC Filing of Direct Evidence of Yakout Mansour, Cameron Lusztig, Ren Orans, Laura Letourneau, and Gerry Garnett dated December 7, 2004  |
| B1-11              | BCTC Responses dated December 7, 2004 to Commission and Intervenor Information Requests No. 3 as follows <ul style="list-style-type: none"><li>• Alberta Electric System Operator</li><li>• BC Hydro</li><li>• BC Old Age Pensioners' Organization et al.</li><li>• Cloudworks</li><li>• Columbia Power Corporation</li><li>• BC Citizens for Public Power</li><li>• Independent Power Producers of BC</li><li>• Joint Industry Electrical Steering Committee</li></ul> |
| B1-12              | BCTC January 14, 2005 Information Request No. 1 to the Alberta Electric System Operator   |
| B1-13              | BCTC January 14, 2005 Information Request No. 1 to the Joint Industry Electricity Steering Committee  |
| B1-14              | BCTC January 14, 2005 Information Request No. 1 to the Independent Power Producers Association of BC  |
| B1-15              | BCTC January 14, 2005 Information Request No. 1 to Columbia Power Corporation   |
| B1-16              | BCTC January 14, 2005 Information Request No. 1 to CBT Energy   |
| B1-17              | BCTC January 14, 2005 Information Request No. 2 to British Columbia Hydro and Power Authority concerning the Direct Testimony of Michael MacDougall and Randy Reimann   |
| B1-18              | BCTC letter and Rebuttal Evidence of Cameron Lusztig, Laura Letoumeau and Ren Orans dated February 9, 2005  |

| <b>Exhibit No.</b> | <b>Description</b>   |
|--------------------|--|
| B1-19              | Letter dated February 10, 2005 from Fasken, Martineau, DuMoulin LLP advising that BCTC does not oppose BC Hydro's application to file rebuttal evidence (B2-15)  |
| B1-20              | BCTC response dated February 10, 2005 to Commission Information Request No. 3 8.2  |
| B1-21              | BCTC revised response dated February 18, 2005 to Columbia Power Corporation Information Requests as follows:<br><br>Revised IR No. 2 13.0<br>Revised IR No. 3 13.0<br>Revised IR No. 3 14.0b   |
| B1-22              | BCTC submission of black-lined Commission Staff Issues List  |
| B1-23              | BCTC letter dated February 23, 2005 filing the "BCTC and BC Hydro Proposal for Imbalance Energy Service", clean and black-lined versions of amended BCTC Rate Schedule 106 and amended Schedule 06 of Attachment L to the proposed BCTC Open Access Transmission Tariff  |
| B1-24              | BCTC submission of clean Commission Staff Issues List with amendments by the Applicants and Intervenors  |
| B1-25              | BCTC second submission of black-lined Commission Staff Issues List comparing the amended version to the original Staff Issues List   |
| B1-26              | BCTC consolidation of Commission Staff Issues List by topic heading and including all Intervenor revisions   |
| B1-27              | BCTC letter dated February 25, 2005 filing amendments as follows: <ul style="list-style-type: none"><li>• Revisions to OATT regarding CEAP's</li><li>• Revisions to OATT – BCH IR 3 66.0</li><li>• Revisions to OATT regarding U.S. Legislation</li><li>• Changes to OATT Schedule 10 of Attachment L and BCTC Rate Schedule 100</li></ul> |
| B1-28              | Letter and Opening Statement of BCTC's Witness Panel dated February 25, 2005   |
| B1-29              | BCTC 1999 Bulletin regarding NE Purchasing with Alberta Exports Rule   |
| B1-30              | BCTC Undertaking – Transcript Reference: Volume 5, Page 330  |
| B1-31              | BCTC Undertaking – Transcript Reference: Volume 5, Page 312  |

| Exhibit No. | Description  |
|-------------|--|
| B1-32       | BCTC Undertaking – Transcript Reference: Volume 5, Page 355, Lines 11-17   |
| B1-33       | BCTC Undertaking – Transcript Reference: Volume 6, Page 584  |
| B1-34       | BCTC Undertaking – Transcript Reference: Volume 6, Page 453  |
| B1-35       | BCTC Undertaking – Transcript Reference: Volume 6, Page 538  |
| B1-36       | BCTC Undertaking – Transcript Reference: Volume 6, Page 457  |
| B1-36R      | BCTC Undertaking – Revised – Transcript Reference: Volume 6, Page 457  |
| B1-36R2     | BCTC Undertaking – Revised (2) – Transcript Reference: Volume 6, Page 457  |
| B1-37       | BCTC Undertaking – Transcript Reference: Volume 6, Page 583  |
| B1-38       | BCTC Undertaking – Transcript Reference: Volume 6, Page 596  |
| B1-39       | BCTC Undertaking – Transcript Reference: Volume 7, Page 620  |
| B1-40       | FERC Order No. 638 issued February 25, 2000  |
| B1-41       | BCTC Undertaking – Transcript Reference: Volume 7, Page 631/632  |
| B1-42       | BCTC Undertaking – Transcript Reference: Volume 8, Page 892  |
| B1-43       | BCTC Undertaking – Transcript Reference: Volume 8, Page 916  |
| B1-44       | BCTC Undertaking – Transcript Reference: Volume 9, Page 974  |
| B1-45       | BCTC Undertaking – Transcript Reference: Volume 7, Page 722  |
| B1-46       | BCTC Undertaking – Transcript Reference: Volume 8, Page 1005-1006  |
| B2-1        | <b>British Columbia Hydro and Power Authority</b> Interconnected Operations Services to British Columbia Transmission Corporation Application dated August 3, 2004 |
| B2-2        | BC Hydro letter dated August 23, 2004 notifying of intervention in the BC Transmission Corporation Open Access Transmission Tariff Application                     |

| <b>Exhibit No.</b> | <b>Description</b>  |
|--------------------|---|
| B2-3               | BC Hydro Information Request to BCTC - Open Access Transmission Tariff dated September 17, 2004   |
| B2-4               | BC Hydro letter and response dated October 22, 2004 to Commission Information Requests and Intervenor Information Requests as follows: <ul style="list-style-type: none"><li>• BC Old Age Pensioners Organization et al. (BCOAPO)</li><li>• Commercial Energy Consumers of BC (CECBC)</li><li>• Joint Industry Electrical Steering Committee (JIESC)</li><li>• City of New Westminster (City of NW)</li></ul> |
| B2-5               | BC Hydro Information Request No. 2 to BCTC – Open Access Transmission Tariff dated November 10, 2004  |
| B2-6               | BC Hydro Response dated December 7, 2004 to Commission Information Request No. 2 and Direct Testimony of Colin Fussell and Michael MacDougall   |
| B2-7               | BC Hydro Response dated December 7, 2004 to BCTC Information Request No. 1  |
| B2-8               | Direct Testimony of M. MacDougall dated December 17, 2004 with respect to BCTC - Open Access Transmission Tariff Application  |
| B2-9               | Direct Testimony of Randy Reimann dated December 20, 2004 with respect to BCTC – Open Access Transmission Tariff Application  |
| B2-10              | BC Hydro January 14, 2005 Information Request No. 1 to the Joint Industry Electricity Steering Committee  |
| B2-11              | BC Hydro January 14, 2005 Information Request No. 1 to the Alberta Electric System Operator   |
| B2-12              | BC Hydro response dated January 28, 2005 to Commission Information Request No. 3  |
| B2-13              | BC Hydro response dated January 28, 2005 to British Columbia Transmission Corporation Information Request No. 1   |
| B2-14              | BC Hydro response dated January 28, 2005 to Columbia Power Corporation Information Request No. 1  |
| B2-15              | BC Hydro letter and Rebuttal Testimony of Michael McDougall dated February 9, 2005  |

| <b>Exhibit No.</b> | <b>Description</b>  |
|--------------------|---|
| B2-16              | BC Hydro letter dated February 17, 2005 with reply comments regarding leave to file evidence to rebut evidence filed by the Alberta Electric System Operator  |
| B2-17              | Outline of BC Hydro Opening Statement dated February 22, 2005   |
| B2-18              | BC Hydro submission of black-lined Commission Staff Issues List   |
| B2-19              | BC Hydro letter dated February 23, 2005 filing an amended Rate Schedule 3011 and the "BCTC and BC Hydro Proposal for Imbalance Energy Service" document   |
| B2-20              | BC Hydro letter dated February 24, 2005 responding to the first three items requested by the Alberta Electric System Operator on page 2 of Exhibit C9-7 (Excel spreadsheets will be provided on a CD to the Commission) |
| B2-21              | February 25, 2005 Revised Response to BCUC IR 3.17.1  |
| B2-22              | Letter dated February 25, 2005 regarding BC Hydro's provision to the Alberta Electric System Operator of copies of the agreements that require BC Hydro to use Point-to-Point transmission service                      |
| B2-23              | BC Hydro filing regarding Xcel Energy Services, Inc. and FERC Order on Rehearings issued October 26, 2004   |
| B2-24              | Alberta Market Surveillance Administrator Report: A Review of Imports, Exports, and Economic use of the BC Interconnection dated January 10, 2005   |
| B2-25              | BC Hydro Undertaking – Transcript Reference: Volume 9, Page 1258, lines 3-8   |
| B2-26              | BC Hydro Undertaking – Transcript Reference: Volume 9, Page 1267, lines 10-18   |
| B2-27              | BC Hydro Undertaking – Transcript Reference: Volume 9, Page 1318, lines 16-20   |

*Intervenor Documents*

|      |  |
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| C1-1 | <b>CLOUDWORKS ENERGY INC.</b> - Notice of Intervention dated July 29, 2004 from John Johnson |
|------|--|

| <b>Exhibit No.</b> | <b>Description</b>   |
|--------------------|--|
| C1-2               | Information Request to BCTC – Open Access Transmission Tariff dated September 17, 2004 from Cloudworks Energy  |
| C1-3               | Information Request to BCTC – Open Access Transmission Tariff dated November 10, 2004 from Cloudworks Energy   |
| C2-1               | <b>NAVIGANT CONSULTING</b> - Notice of Intervention dated August 9, 2004 from Lorne Wells  |
| C3-1               | <b>TRANSCANADA ENERGY LTD.</b> - Notice of Intervention dated August 12, 2004 from Alan Ross   |
| C4-1               | <b>ZE POWER GROUP INC.</b> - Notice of Intervention dated August 11, 2004 from Zak El-Ramly  |
| C4-2               | Evidence of Dr. Z. El-Ramly of ZE Power Group Inc. dated December 17, 2004 on behalf of CBT Energy   |
| C5-1               | <b>BC PUBLIC INTEREST ADVOCACY CENTRE</b> - Notice of Intervention dated August 13, 2004 from Richard Gathercole representing the CAC(BC) <i>et al</i>   |
| C5-2               | Information Request to BCH - Interconnected Operations Services to British Columbia Transmission Corporation dated September 17, 2004 from the BC Public Interest Advocacy Centre  |
| C5-3               | Information Request to BCTC – Open Access Transmission Tariff dated September 17, 2004 from the BC Public Interest Advocacy Centre   |
| C5-4               | Letter dated September 24, 2004 requesting that the lead consultant to the BC Public Interest Advocacy Centre be added to the Intervenor distribution list   |
| C5-5               | Letter dated October 7, 2004 commenting on BCTC's October 5, 2004 letter requesting a two week extension of the time in which to respond to the second series of Information Requests from Intervenor and the Commission |
| C5-6               | Information Request No. 2 to BCTC – Open Access Transmission Tariff dated November 10, 2004 from the BC Public Interest Advocacy Centre  |

| <b>Exhibit No.</b> | <b>Description</b>  |
|--------------------|---|
| C6-1               | <b>BC MINISTRY OF ENERGY AND MINES</b> - Notice of Intervention dated August 13, 2004 from Shelley Murphy   |
| C7-1               | <b>CITY OF NEW WESTMINSTER</b> - Notice of Intervention dated August 13, 2004 from Willis Energy Services on behalf of the City of New Westminster  |
| C8-1               | <b>WILLIS ENERGY SERVICES LTD.</b> - Notice of Intervention dated August 13, 2004 from Paul Willis  |
| C8-2               | Information Request No. 1 to BCTC – Open Access Transmission Tariff dated September 17, 2004 from Willis Energy Services on behalf of the City of New Westminster                                       |
| C8-3               | Information Request No. 1 to BCH – Interconnected Operations Services to British Columbia Transmission Corporation dated September 17, 2004 from Willis Energy on behalf of the City of New Westminster |
| C8-4               | Information Request No. 2 to BCTC – Open Access Transmission Tariff dated September 17, 2004 from Willis Energy Services  |
| C9-1               | <b>ALBERTA ELECTRIC SYSTEM OPERATOR</b> - Notice of Intervention dated August 13, 2004 from James H. Smellie  |
| C9-2               | Information Request to BCTC – Open Access Transmission Tariff dated September 17, 2004 from the Alberta Electric System Operator  |
| C9-3               | Amendment dated September 20, 2004 to Information Request to BCTC – Open Access Transmission Tariff dated September 17, 2004  |
| C9-4               | Information Request to BCTC – Open Access Transmission Tariff dated November 10, 2004 from the Alberta Electric System Operator   |
| C9-5               | Letter and Evidence dated December 17, 2004 from the Alberta Electric System Operator regarding the BCTC – Open Access Transmission Tariff  |
| C9-5A              | Appendix A – Trading Potential – Excel Data Sheet that forms part of Exhibit C9-5   |
| C9-5B              | Appendix B - BCTC Transmission and Energy - Excel Data Sheet  |

| <b>Exhibit No.</b> | <b>Description</b>   |
|--------------------|--|
| C9-6               | Letter and response dated January 28, 2005 to Commission Information Request No. 1 and to BC Transmission Corporation and BC Hydro Information Requests No.1                                     |
| C9-6A              | Excel Data Sheets that form part of Exhibit C9-6   |
| C9-7               | Letter dated February 14, 2005 commenting on BC Hydro's application for leave to file evidence rebutting the Alberta Electric System Operator Evidence filed on December 17, 2004 (Exhibit C9-5) |
| C9-8               | Letter dated February 18, 2005 regarding BC Hydro's correspondence of February 17, 2005 (Exhibit B2-16)  |
| C9-9               | Letter dated February 21, 2005 regarding a change in the Alberta Electric System Operator witness list, their Direct Evidence and the Curriculum Vitae of Neil Millar                            |
| C9-10              | Submission of a webpage from the BC Transmission Corporation website regarding Open Access Same-time Information System  |
| C9-11              | Submission regarding Third Party PTP Customer and Network Customer   |
| C9-12              | Letter dated March 4, 2005 filing the Opening Statement of Neil A. Millar on behalf of the Alberta Electric System Operator  |
| C9-13              | Alberta Electric System Operator submission of BCTC Undertaking – Transcript Reference: Volume 10, Page 1459   |
| C9-14              | Alberta Electric System Operator submission of BCTC Undertaking – Transcript Reference: Volume 10, Page 1463, 1521   |
| C9-15              | Alberta Electric System Operator submission of BCTC Undertaking – Transcript Reference: Volume 10, Page 1516, 1517   |
| C10-1              | <b>COLUMBIA POWER CORPORATION</b> - Notice of Intervention dated August 17, 2004 from Bruce Duncan   |
| C10-2              | Information Request to BCTC – Open Access Transmission Tariff dated November 10, 2004 from Columbia Power Corporation  |
| C10-3              | Cover letter dated December 17, 2004 from Counsel for Columbia Power Corporation, and Evidence and Curriculum Vitae of Dr. Marvin Shaffer  |
| C10-4              | Letter dated January 14, 2005 enclosing Information Request No. 1 to the Joint Industry Electricity Steering Committee   |

| <b>Exhibit No.</b> | <b>Description</b>   |
|--------------------|--|
| C10-5              | Letter dated January 14, 2005 enclosing Information Request No. 1 to BC Hydro  |
| C10-6              | Response dated January 28, 2005 to Commission Information Request No. 1  |
| C10-7              | Letter and response dated January 28, 2005 to BC Transmission Corporation Information Request No. 1  |
| C10-8              | Letter and Revised Information Request No. 3.14.0(b) dated February 3, 2005 to British Columbia Transmission Corporation   |
| C10-9              | Copy of the BCUC's June 5, 2005 West Kootenay Power Ltd. Decision on the Certificate of Public Convenience and Necessity Application for the Kootenay 230 kV System Development Project submitted by Mr. Weisberg                        |
| C10-10             | Copy of Commission Order No. G-46-02 approving the Final Routing, Cost Estimate and Agreements for the Kootenay 230 kV system Development Project for Aquila Networks Canada (British Columbia) Ltd. (formerly West Kootenay Power Ltd.) |
| C11-1              | <b>COMMERCIAL ENERGY CONSUMERS OF BRITISH COLUMBIA</b> - Notice of Intervention dated August 19, 2004 from Christopher Weafer, Owen Bird   |
| C11-2              | Information Request to BCTC – Open Access Transmission Tariff dated September 17, 2004 from Commercial Energy Consumers of British Columbia  |
| C11-3              | Information Request to BCH – Interconnected Operations Services to British Columbia Transmission Corporation dated September 17, 2004 from Commercial Energy Consumers of British Columbia   |
| C12-1              | <b>TERASEN GAS INC.</b> - Notice of Intervention dated August 18, 2004 from Scott A. Thomson   |
| C13-1              | <b>JOINT INDUSTRY ELECTRICITY STEERING COMMITTEE</b> - Notice of Intervention dated August 19, 2004 from R. Brian Wallace, Bull, Housser & Tupper  |
| C13-2              | Information Request to BCTC – Open Access Transmission Tariff dated September 17, 2004 from the Joint Industry Electricity Steering Committee  |

| Exhibit No. | Description  |
|-------------|--|
| C13-3       | Information Request to BCH – Interconnected Operations Services to British Columbia Transmission Corporation dated September 17, 2004 from the Joint Industry Electricity Steering Committee   |
| C13-4       | Letter dated October 5, 2004 supporting BCTC October 5, 2004 letter requesting a two week extension of the time in which to respond to the second series of Information Requests from Intervenors and the Commission   |
| C13-5       | Information Request to BCTC – Open Access Transmission Tariff dated November 10, 2004 from the Joint Industry Electricity Steering Committee   |
| C13-6       | Testimony dated December 17, 2004 of G.S. Saleba and J.A. Piliaris on behalf of the Joint Industry Electricity Steering Committee  |
| C13-7       | Responses dated January 30, 2005 from the Joint Industry Electricity Steering Committee to Information Request No. 1 from the following:<br><br>A) Columbia Power Corporation<br>B) BC Hydro<br>C) BC Transmission Corporation<br>D) BC Utilities Commission |
| C13-8       | Qualifications Statements of Gary Saleba and Jon Piliaris  |
| C13-9       | Joint Industry Electricity Steering Committee Undertaking – Transcript Reference: Volume 10, Page 1397-8   |
| C14-1       | <b>INDEPENDENT POWER PRODUCERS ASSOCIATION OF BRITISH COLUMBIA</b> - Notice of Intervention dated August 23, 2004 from David Austin, Tupper Jonsson & Yeadon on behalf of the IPPBC  |
| C14-2       | Information Request to BCTC - Open Access Transmission Tariff dated September 20, 2004 from the Independent Power Producers association of British Columbia  |
| C14-3       | Information Request No. 2 to BCTC – Open Access Transmission Tariff dated November 10, 2004 from the Independent Power Producers association of British Columbia   |
| C14-4       | Letter and Policy Evidence dated December 16, 2004 from the Independent Power Producers association of British Columbia  |

| <b>Exhibit No.</b> | <b>Description</b>  |
|--------------------|---|
| C14-5              | Letter dated January 14, 2005 advising Commission that due to the uncertainty surrounding the BCUC's Participant Assistance/Cost Award Guidelines, IPPBC is currently reconsidering level of participation  |
| C14-6              | Letter dated January 25, 2005 withdrawing Written Evidence  |
| C15-1              | <b>PACIFIC WESTERN ENERGY INC. / ELK VALLEY COAL CORPORATION</b> - Notice of Intervention dated August 23, 2004 from Dave Newlands  |
| C16-1              | <b>EPCOR UTILITIES INC.</b> - Notice of Intervention dated August 27, 2004 from Daniel Jurijew  |
| C17-1              | <b>GSX CONCERNED CITIZENS COALITION</b> - Notice of Intervention dated August 29, 2004 from Thomas Hackney  |
| C18-1              | <b>FORTISBC INC.</b> - Notice of Intervention dated August 27, 2004 from George Isherwood   |
| C19-1              | <b>BC CITIZENS FOR PUBLIC POWER SOCIETY</b> - Notice of Intervention dated August 31, 2004 from Mark Veerkamp   |
| C19-2              | Letter dated September 15, 2004 from William J. Andrews, Counsel for BC Citizens for Public Power Requesting an Extension to the Filing Deadline for Information Request No. 2  |
| C19-3              | Information Request to BCTC – Open Access Transmission Tariff dated September 20, 2004 from BC Citizens for Public Power  |
| C19-4              | Letter dated October 6, 2004 commenting on BCTC's October 5, 2004 letter requesting a two week extension of the time in which to respond to the second series of Information Requests from Intervenors and the Commission (Exhibit B1-5) and on the JIESC's October 5, 2004 letter in support of BCTC's request (Exhibit C13-4) |
| C19-5              | Information Request No. 3 to BCTC – Open Access Transmission Tariff dated November 10, 2004 from BC Citizens for Public Power   |
| C19-6              | Letter dated December 2, 2004 authorizing the BC Citizens for Public Power to represent the Canadian Office and Professional Employees Union Local 378 (COPE 378) in the BCTC – Open Access Transmission Tariff and BCH – Interconnected Operations Services hearing  |

| <b>Exhibit No.</b> | <b>Description</b>   |
|--------------------|--|
| C19-7              | Letter dated January 17, 2005 advising of a change in counsel  |
| C20-1              | <b>CBT ENERGY</b> - Notice of Intervention dated September 15, 2004 from P. John Landry, Davis & Company |
| C20-2              | Letter and response dated January 28, 2005 to BC Transmission Corporation Information Request No. 1      |
| C20-3              | Letter and response dated January 28, 2005 to Commission Information Request No. 1                       |
| C20-4              | Letter dated March 7, 2005 with Summary of Qualifications and resume of Dr. Zak El-Ramly                 |
| C20-5              | Letter dated March 11, 2005 and CBT Energy Undertaking – Transcript Reference: Volume 11, page 1706      |
| C21-1              | <b>BC CHAMBER OF COMMERCE</b> - Notice of late Intervention dated September 28, 2004 from John Winter    |

*Letters of Comment*

|     |   |
|-----|---|
| E-1 | Letter of Comment dated November 15, 2004 from Roger Bryenton         |
| E-2 | Letter of Comment dated February 18, 2005 from Cloudworks Energy Inc. |