Exhibit No. C3-10

BRITISH COLUMBIA UTILITIES COMMISSION

British Columbia Hydro and Power Authority

Certificate of Public Convenience and Necessity for the Dawson Creek/Chetwynd Area Transmission (DCAT) Project

Project No.3698640

Written Direct Evidence of Richard Stout

on behalf of

The Association of Major Power Customers of B.C. (AMPC)

June 7, 2012

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1. SUMMARY OF WITNESS QUALIFICATIONS

Q. Please state your name, occupation and business address

A. My name is Richard Stout. I am the Executive Director of the Association of Major Power Customers of B.C. (AMPC) and also provide expertise in the area of electric utility policy, regulation and tariffs. AMPC, previously known as the Joint Industry Electricity Steering Committee (JIESC), represents major industrial load customers in matters of electricity policy and regulation. My business address is #608 - 1367 Alberni St. Vancouver, BC V6E 4R9.

Q. What is your academic background?

A. I hold a Masters of Business Administration from the University of Calgary and a Bachelor of Science (Eng.) with specialization in electric power systems from Imperial College in London, England. My post-graduate training also includes a number of industry-specific technical and management courses at institutions such as the University of Indiana, the Georgia Institute of Technology and the Banff School of Management. My *curriculum vitae* is attached as Appendix B.

Q. Please outline your professional qualifications and experience.

A. I have been a senior manager with a number of major Western Canadian electricity generation and transmission utilities, including BC Hydro. My career of more than 30 years started in the United Kingdom and led to positions of progressive responsibility in Western Canada, and includes post-graduate training in the planning, construction and operation of electricity generation and transmission systems.

My career responsibilities have included:

- Integrated generation and transmission planning

- Tariff design and application, including contribution policy
- Marginal and fully allocated cost of service studies
- Electricity market design and utility restructuring
- Facility “Needs” applications and related planning approvals
- Revenue Requirement Applications and incentive regulation development

Q. Have you previously appeared as a witness before the British Columbia Utilities Commission?

A. Yes. I have regularly testified over the last 25 years before energy and utility regulatory boards and commissions in the provinces of Alberta and British Columbia, and the Northwest and Yukon territories. I have managed multiple applications before the BCUC, participated in multiple hearing and negotiation processes, and am familiar with BCUC regulation.

2. OVERVIEW

Q. Please describe how you have organized the presentation of this evidence.

A. This evidence is structured as follows:

1. Introduction
2. Overview
3. Discussion
   - 3.1 Overview of postage stamp rates and customer contributions
   - 3.2 How Transmission Supplement 6 (TS 6) of BC Hydro’s Electric Tariff implements these principles
   - 3.3 How TS 6 affects the DCAT Project
4. Recommendations

Q. What is the purpose of your evidence?

A. AMPC is concerned about the very different treatment of customer contributions, applicable to similar sizes of large industrial developments imposing similar incremental costs on the BC Hydro system, based solely on the presence or absence of existing but inadequate infrastructure in the vicinity of the new loads. The large majority of the DCAT project's capacity expansion (costing in excess of $219 million) is for the benefit of new industrial load, yet no contribution is required from these customers and the system costs are therefore "rolled-in" to the rates. In contrast, expansion projects of comparable size and cost in other parts of the province – notably the Northwest Transmission Line (NTL) project ($228 million net of grants) – rely on customer contributions with no "roll-in". Different tariff treatment for customers causing similar increases in system costs creates numerous problems and is not in the public interest.

In AMPC's view, BC Hydro's 21-year old Tariff Supplement No. 6 (TS 6) is inadequate for current circumstances and should be modified to produce customer contribution results that are consistent throughout the province. In its present form TS 6 results in distorted price signals that may lead to sub-optimal resource developments, contrary to general tariff principles and contrary to the public interest.

The purpose of my evidence is to explain why TS 6 is problematic and to suggest a better course of action. In the DCAT circumstances, the corrections to the tariff necessary to serve the public interest could result in reducing, delaying or even removing the need for the DCAT project, making it the appropriate first step in any determination of project need.

3. DISCUSSION

3.1 Overview of postage stamp rates and customer contributions

Q. Please describe what a postage stamp rate is with respect to an electric transmission tariff.

A. BC Hydro's Electric Tariff is based on the "postage stamp rate" principle that is very widely accepted by vertically integrated utilities. Under the postage stamp principle, rates do not differ by location or vintage of customer and are designed to recover the fully allocated cost of service. The cost of service "rolls in" higher cost new facilities with lower cost depreciated facilities to provide universal service at a stable average rate. In addition, a postage stamp rate means that customers pay the same cost irrespective of their location within the utility's service area. The price paid is independent of the distance that the electricity is assumed to travel, and blind to the degree of the customer's reliance on transmission infrastructure.

In AMPC's view, postage stamp or "rolled-in" rates must be preserved because they are of key social importance and a critical factor in securing regional and long-term economic developments in B.C.

Q. What is the relationship between customer contributions to transmission infrastructure and postage stamp rates?

A. Customer contributions are a necessary component of postage stamp rates for several reasons. To be maintained, postage stamp rates require protection from undue price escalation and associated controversies that would occur if new customers or groups of customers causing significant expansion costs were not charged a "contribution in aid of construction" or "CIAC", usually termed a customer contribution. In the absence of location-dependent rates, customer

contributions reflect a user-pay / cost-causation tariff principle and send a price signal to drive economically efficient decision-making by resource developers. Customers that choose to develop large electrical loads in locations that will require significant incremental transmission infrastructure construction are then required to contribute to the cost of the infrastructure with a contribution payment before they can access the stable postage stamp rate.

The customer contribution establishes an upper limit on the costs that can be rolled-in to the postage stamp tariff. Absent such a contribution mechanism, a large customer choosing to locate in a weak part of the transmission system or far away from existing facilities could force other customers to finance an extravagant system expansion. The utility's obligation to serve such high cost customers without the economic limitation of a contribution mechanism could result in unacceptable levels of rate escalation and consequential pressure on the acceptability of postage stamp tariffs.

Q. Can you please explain the above concepts with an example?

A. The simplest conceptual example is a radial extension where only the new customer benefits from the new connecting transmission line. It is clearly appropriate for that customer to bear a portion, but not all, of the associated radial transmission costs in order to limit the rate impact on other customers of rolling-in extraordinary costs. The principle usually adopted is that a radial transmission line will be extended as far towards the customer as the expected new revenues can support without creating upward rate pressure. The resulting expansion cost is typically two to three times the new customer's first year revenue.

On the other hand, if a new transmission customer is located close to the existing transmission network, ***and*** is small relative to existing loads (and generators) in the area, it can be challenging and controversial to strike a balance. That is, it

can be difficult to determine the extent to which necessary expansion is attributable to the growth of existing customers, the addition of many small (i.e., distribution level) customers in the area, or relatively small new transmission load. System reinforcement costs are therefore fully "rolled-in" where the increment of new load is small relative to existing loads, and the customer pays only for his dedicated substation. Metaphorically speaking, in this case it is considered unfair to charge the customer responsible for the last straw that breaks the camel's back with the cost of an entirely new camel, because existing or many small new customers have contributed significantly to the breaking of the camel's back through their own cumulative growth.

A robust contribution policy provides reasonable outcomes in the form of predictably varying customer contribution assessments without discontinuities, for all customers that drive significant expansion costs in the wide range of actual circumstances found in between these two simplified extremes.

Q. How is the customer contribution mechanism developed and included in the postage stamp tariff?

A. The contribution charge for access to electric service at the rolled-in rate is determined formulaically to represent a fair sharing between new and old customers of the incremental costs of expanding and reinforcing the transmission system to serve the new loads. A sharing formula determines the ceiling of the total expansion costs (i.e., the sum of all transmission system reinforcement and extension or connection costs, excluding ***only*** the new customer's own substation) that other customers will support through the rolled-in tariff.[1] The

[1] The sharing formula determines the proportion of the total system reinforcement and connection costs attributable to the new customer that will rolled-in to the tariff, with the excess forming the customer contribution payable by the new customer. Sharing formulas are usually a simple ratio intended to limit rate impact, such as a utility contribution calculated based on a $/contracted KV.A of minimum demand, or a multiple of two to three times the annual revenue expected from new customer. The specific derivation of the sharing formula is less important than correctly attributing all of the gross system reinforcement and connection costs to the new customer in the first place, and also less important than

"roll-in" amount is usually referred to as the "Utility Investment," given that the shareholder will usually earn a return only on this rate-based portion.

The excess costs after the "roll-in" determination, are recovered from the new customer(s) as an upfront customer contribution. This entire calculation, from the summation of all of the transmission reinforcement and connection costs to the specific sharing formula, represents a carefully considered balance of cost responsibility between new and old customers and places a dependable limit on the upward rate pressure caused by load growth. The resultant customer contribution provides an equally important price signal to new customers considering the location, size, timing and energy sourcing of their new developments.

Under an effective customer contribution policy, customers planning to locate in an area requiring expensive transmission reinforcement are required to pay the portion of the expansion cost deemed unsupportable through general rates as a customer contribution. Depending on the size of the assessed contribution, the customer may then choose an alternative development or energy source (e.g., natural gas), resize or delay the project in response to their portion of the system expansion costs required. Transparent, predictable and consistently determined customer contributions based on system expansion cost causation are therefore necessary to allow the efficient and orderly development of the electric system.

Q. Why is it so important that the customer contributions be determined clearly and early in the decision making process as part of the regulated tariff?

A. A clearly articulated, approved and published tariff establishes the rules for calculating contributions ahead of time such that each new customer can

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the consistent application of the same formula, such that customer contributions are assessed for new customers that trigger significant system expansions.

consider developments, confident that they will receive similar treatment to other new customers and differing locations. Today's new customer is tomorrow's old customer, and today's old customer is yesterday's new customer. Transparent and consistent treatment over time provides a stable and predictable basis for new and existing customers to plan their business. An effective contribution policy supports stable postage stamp rates and the predicable contributions that new customers require to in order to evaluate their project development, location timing and energy supply choices. When contribution policy is unclear or opaque, uncertainty over future costs deters economic development and may result in sought-after developments locating in jurisdictions which provide greater certainty through more stable and predictable rates and contribution levels. Existing customers also lose confidence that the rate increases will remain within reasonable levels if customer contributions are not clearly and reasonably assessed.

Q. What are other contribution policy factors you find attractive?

A. A customer contribution policy should be simply articulated and clear, not dependent on obscure allocations, complex formulae, sharp discontinuities or arbitrary thresholds. It must be applied transparently, progressively and consistently. It should result in comparable customer contributions where new customers cause comparable system reinforcement and connection costs relative to their revenues and regardless of their location, type of business or profitability.

Over a period of time sufficient to encompass complete business cycles, a rough rule of thumb sometimes employed to gauge the success of a customer contribution policy is that 20% of new customers in the service area will be assessed a contribution towards transmission expansion costs, and 80% will see no customer contribution as their revenues are sufficiently large relative to the incremental costs of serving them.

Customer contribution policies generally contain an "escape" clause allowing larger contributions to be charged (using a risk discounted sharing formula)[2] to customers who may have a very short commercial life due to a novel or untested process, or where rapid resource depletion or failure is expected. As discussed below with respect to TS 6's 150 MV.A threshold, it is very unusual and possibly unique for an "escape" clause to be based solely on MV.A size and result in the customer paying all incremental costs, inclusive of generation.

3.2 How Transmission Supplement 6 (TS 6) of BC Hydro's Electric Tariff implements postage stamp and customer contribution principles

Q. Do the Electric Tariff and TS 6 reflect the above principles?

A. AMPC believes that BC Hydro's tariff was intended to reflect the above principles but TS 6 has a very limited capability to deal appropriately with situations between the simple extremes of new radial extensions and grid reinforcement discussed above. TS 6 is not sufficiently robust or well defined to address the high growth scenarios expected in B.C. today and its intended application by BC Hydro to major projects lacks clarity.

Q. What is AMPC's understanding of when TS 6 requires customer contributions?

A. BC Hydro provides a discussion in questions 101 to 114 of Exhibit B-22. I understand that TS 6 requires customer contributions to limit the rate impact of new transmission facilities, unless the new facility is deemed to constitute "system reinforcement." The threshold for rolling-in a facility is very low. If at

[2] The simplified roll-in ratio is normally calculated to avoid upward pressure on rates assuming a "normal" commercial life of 20 years or more for the new customer(s). Annual revenues from the tariff recover both generation and transmission costs, so that only a portion is available to offset the incremental transmission costs that are rolled–in. The 20 year expected revenue stream may therefore result in a multiplier for the whole revenue of only 2 to 3 years. When a risky or short-lived development with an expected commercial life of less than 20 years is encountered the simplified ratio is reduced accordingly.

least one other transmission-level customer will be served by the new facility, or if 5% or more of the capability on the new facility is attributable to other users (presumably existing users), the facility is rolled in. When the new load exceeds 150 MV.A, however, TS 6 reverses itself and the cost of new generation (and associated transmission) and 500 kV transmission facilities all become subject to a customer contribution, instead of being rolled-in.

Once the new transmission facilities required to serve a new customer with a load less than 150 MV.A are classified as a system reinforcement, the customer is only required to pay for the facility costs that exceed an "offset cost," calculated by BC Hydro in its version of a sharing formula. However, the generous offset cost of TS 6 is not available to customers served by radial extensions of the transmission system. In practice, the offset calculation "rolls in" virtually all costs deemed to be system reinforcement, eliminating any customer contributions.[3] This means that BC Hydro effectively treats all radial extension costs as 100% contribution without any roll-in, and treats all system reinforcements as rolled-in, without any contributions (subject to the 150 MV.A cap). The 150 MV.A reversal also invites artificial splitting or staging facilities to reduce the assessed customer contribution. This series of results is discriminatory and unnecessarily distorts the economics of resource decisions.

The offset or sharing formula uses an annual revenue multiplier of 7.4 years, plus the first year's depreciation. The offset can also be increased by the application of a discretionary determination of other "system benefits", but BC Hydro has stated that it has never made use of that additional provision.[4] The offset amount also forms the basis for the calculation of the refundable security amount required of transmission customers – but it is important to note that security contributions and customer contributions are very different devices.

[3] Ex. B-22, Attachment 2, p. 81.
[4] Ex. B-22, Attachment 2, Q/A 116, p. 83.

Q. What is your view of the 150 MV.A threshold?

A. The 150 MV.A threshold is a strange discontinuity that appears to have been set in recognition that customer contributions are otherwise too infrequent or too small to protect rate levels. According to BC Hydro, only one customer was ever subject to the 150 MV.A limit, and in the face of this price signal the project did not proceed. It is, however, unlikely that the limit would have been applied to a determined large customer who was welcomed by the shareholder. This arbitrary size distinction fails to meet a number of rate design principles, including controversy of determining exactly what incremental generation costs are caused on a shared system with uncertain load forecasts and timing.

An example of the challenge the 150 MV.A threshold poses appears with respect to Shell's Groundbirch gas plants. As described by BC Hydro, they will comprise an ultimate load of 281 MW, but Shell is only proceeding at this time with 120 MW.[5] Shell's loads are staged and fit under the 150 MV.A limit, but the total load for long term planning purposes apparently remains at 281 MW. The staging may be an example both of the general effectiveness of contribution policy price signals affecting development decisions, and the signal failure of such arbitrary thresholds to protect against rate increases. A principled contribution policy is preferable in each case.

3.3 How TS 6 affects the DCAT Project

Q. Are cost causation / user pay principles appropriately reflected in BC Hydro's application of TS 6 in the DCAT Project context?

A. No, because despite the fact that new industrial facilities are in BC Hydro's estimation driving between 64% to 86% of the need for the $219 million DCAT

[5] Ex. B-22, Attachment 2, p. 19.

project, TS 6 does not require contributions.[6] This issue is compounded by the relationship between the DCAT and the potential $114 million GDAT projects (DCAT being a necessary precursor to GDAT). If both facilities proceed, and if both facilities receive the same tariff treatment, then up to $335 million in new infrastructure, 76% to 90% attributable to new industrial facilities, will escape a reasonable level of customer contribution obligation.[7] This outcome is inconsistent with the user pay / cost causation principle that customer contribution policies (including TS 6) are intended to give effect to.

Q. Has BC Hydro insisted on the user pay / cost causation principle elsewhere?

A. Yes. BC Hydro's website indicates that the NTL Project, a transmission expansion of comparable cost to DCAT, will be substantially funded by government grants and customer contributions, with presumably no roll-in of costs under a sharing formula. As such existing customers will not be required to pay for the costs of transmission expansion through postage stamp rates, and substantial customer contributions will be required from the new customers.[8]

Q. Is this treatment the result of TS 6?

A. No. The *Clean Energy Act* requires the Commission to consider and approve a rate for the NTL project, to be proposed by BC Hydro.[9] This could, in theory, be TS 6 or another tariff. It has generally been AMPC's understanding that TS 6 would be applied, except that a rate specific to the NTL project would be developed as an area surcharge to finance the large customer contribution required over a number of years, instead of collecting it as an up-front

[6] Ex. B-5, response to BCUC IR 1.46.1 and ex. B-22, Attachment 2, Q/A 116, p. 83.
[7] Ex. B-30-1, response to CEC IR 4.26.4.
[8] Ex. C3-3, Attachment A. On May 17, 2011, NTL costs were listed as $404 million with a $130 million federal contribution, a $180 million customer contribution, and BC Hydro capital costs of $94 million. Also see Appendix "C" to this evidence, which states "The estimated ratepayer contribution to the NTL is expected to be offset by contributions from future clean, renewable energy projects and/or mine developments."
[9] S.B.C. 2010, c. 22, s. 8(2).

contribution. The present value of the surcharge payments would be equivalent to the contributions charged pursuant to TS 6.

Q. In that case, don't these outcomes result from a straightforward application of TS 6 on the one hand, or that of an as-yet unfiled tariff on the other? How is BC Hydro's application of TS 6 problematic?

A. The different DCAT and NTL customer contribution outcomes mean that customers are not treated equally and the cost-causation / user-pay principle is not respected in the process explained by BC Hydro to date. These outcomes are inconsistent with the principles underpinning customer contribution policies and TS 6 in particular. BC Hydro should therefore consider changes to TS 6 before determining the size and scope of DCAT and GDAT.

BC Hydro has now entered a period of high growth and must assess multiple large transmission developments driven by major new forecast loads. The fact that DCAT is the first project "out of the blocks" and has already tripped demonstrates that the wording of TS 6 is inadequate for its intended purpose. It is critical that the tariff be appropriately modified before considering the need for DCAT, as the resultant contributions provide an important customer price signal that will impact the need, scope and timing of DCAT and subsequent transmission projects.

Q. How should BC Hydro change TS 6?

A. I have provided some suggestions in Appendix A. Approving or rejecting that material is beyond the scope of this proceeding, but it illustrates the nature of the necessary changes.

Q. Has BC Hydro amended its tariff as part of a facility application before?

A. Yes, BC Hydro currently seeks to do so as part of the DCAT application. To achieve "equitable outcomes" BC Hydro has applied to require distribution level customers to provide the same security contributions that transmission level customers are required to provide.[10] This is because two customers have requested distribution level service. If the Electric Tariff was applied straightforwardly "as is", neither a customer contribution nor a security contribution would be required for these two customers. It is not uncommon to modify tariffs, including contribution policies, to deal with unanticipated circumstances in periods of high growth – particularly after a period where, as here, the tariff policy has been essentially dormant.

Q. What effect would customer contributions have on the DCAT Project?

A. Customer contributions could affect DCAT project need. Given the alternative natural gas energy supply for compressors, future electric load might reduce or even evaporate given the changed economics. Or, it might not. If the DCAT customers face appropriate customer contributions for electric service they may re-evaluate the alternatives and select gas drives or gas-fired self-generation based on the new relative costs of each energy source that better reflects the cost of providing reliable electric service. These customers may also re-evaluate the scope, size and location of their projects in response to appropriate price signals. The absence of significant customer contributions in the case of DCAT is distorting these economic decisions and encouraging the overbuilding of the electric system. Provided that customers' choices are the result of a clear price signal from a principled tariff, AMPC is indifferent to the outcome.

Q. What is your response to the claim that new customers expecting service via DCAT prefer electric drives to gas drives.

[10] Ex. B-1, p. 2-20.

A. This may well be the case. Large electric drives are powerful, clean at point of use, easy to control and reliable when adequate transmission capacity is provided to maintain voltage levels and dynamic stability during starting and following contingencies. The local area transmission necessary to provide such robust electrical capacity is costly, however, and would normally be expected to result in significant up-front contributions being required of new customers. These customer contributions may change the affected customer's preference for direct electric drives where alternatives are available.

4. RECOMMENDATIONS

Q. What is your recommendation concerning the DCAT project?

A. AMPC recommends that the Commission deny approval of the DCAT project pending a revision of TS 6 to provide an effective and consistent contribution policy, resulting in outcomes that are in the public interest. An effective version of TS 6 would likely result in significant non-refundable contributions being assessed to DCAT customers instead of refundable security deposits. This approach would allow the deletion of the unworkable provision to charge "full" incremental costs to loads in excess of 150 MV.A and allow for consistent application of tariffs across B.C. Following a re-assessment of contributions, customer's development plans may change which in turn may alter the scope, size and timing of the DCAT project.

The government's proposal of acknowledging the need for a policy review, but urging significant expansion and expenditures nonetheless, is a route to instability and erodes public confidence in BC Hydro and its tariff outcomes.

Q. Should the project be delayed until after the government's planned review of industrial electricity policy?[11]

[11] Ex. B-22, Attachment 1.

A. No. The Commission has a current mandate to determine whether the DCAT Application is in the public interest. Given the application of TS 6, AMPC is of the view that the facility is not in the public interest. The Commission should therefore deny the Application and provide guidance to BC Hydro about the appropriate price signals that should be sent in a revised tariff. Those revisions may or may not be subsumed by future government initiatives.

Q. What is your response to new customers' concern that changing the tariff now would be too time-consuming given their projects' needs, and the time and money they have already invested?

A. Proceeding further with transmission construction under TS 6 would compound BC Hydro's initial error. BC Hydro ought to have recognized that TS 6 would create this outcome several years ago once it became aware of the initial scope of demand driving the DCAT project. Natural gas powered compression or self generation may remain options, and from a cost perspective it is important to avoid the potential overbuild of the DCAT and GDAT projects.

Q. Is AMPC involved to protect itself from the rate increases implied by accommodating new customers and continued access to cheap and limited heritage power?

A. No. While some AMPC customers may be struggling financially, a number of AMPC members have large expansion plans. AMPC is a strong supporter of postage stamp rates being available to all customers seeking electric service, regardless of vintage, economic circumstances or type of business. As mentioned previously, every existing customer was once a new customer. AMPC's concern is that a consistent, predictable, and principled tariff policy be transparently applied to facilitate economic and reliable development of electric infrastructure to support the economic development of BC.

Q. Why did AMPC choose the DCAT proceeding to raise these issues?

A. BC Hydro and its stakeholders have had little reason to review and renew TS 6 in the low growth environment prevailing until recently, and the level of contributions required in different areas of the province, such as the NTL Project and North Coast, remain unclear. Contribution policy and basic rate structures must be determined before deciding what system extensions are necessary to meet the resultant demand, which may be significantly altered by different tariff policies. Industrial customers are price sensitive and require stable and clear costs before embarking on major, electric intensive developments.

It became apparent in the DCAT application that BC Hydro's treatment of prospective customers wishing to use electricity in the Dawson Creek/Chetwynd Area differs substantially from the treatment of prospective customers wishing to use electricity for mining developments in Northwestern B.C. The former group is not assessed any significant contribution while the latter group has been informed that they will be assessed large contributions amounting to approximately $100 million. It is unacceptable that similar industrial customers and comparable incremental costs of service should result in different customer contribution policies, and it is the role of the Commission to protect customers from such discrimination.

In the uncertainty promoted by the peculiarities and discontinuity of TS 6, AMPC is concerned that BC Hydro's policy will be applied differently yet again when transmission reinforcements to the Kitimat area are required to serve natural gas liquefaction plants (LNG developments), if they proceed on the scale expected.

APPENDIX A

Suggested Changes to TS 6

- Eliminate the separation of the incremental transmission costs into “system reinforcement”, “basic transmission extension”, and “transmission connection”. The different categories enable discriminatory treatment between customers in different locations who cause similar costs. Only the customer’s substation costs should be excluded from application of the sharing formula.

- Identify “system reinforcement” costs only to pro-rate these costs to individual customers in a collective development and add them to any customer specific “transmission connection” (radial) costs before applying the sharing formula. This determines the rolled-in contribution and the residual customer contribution.

- Only distinguish customer-specific infrastructure (radial extensions or non-radial components required by a single customer, excluding the customer’s substation) when calculating transmission connection versus system reinforcement costs. This obviates the need to determine any contentious percentage threshold where an incremental transmission cost arbitrarily becomes “system reinforcement”.

- Adopt a simplified sharing formula comprising a straightforward dollar per contract KVA or annual revenue multiplier (likely between 2 and 3), which would reflect the practice of other utilities and result in reasonable customer contributions when new customers are large relative to the existing customers that will be served by the reinforcements (e.g., as is the case with the DCAT project).

- Remove the “basic transmission extension” category, as a sharing formula applied to the sum of allocated “system reinforcement” costs, “customer specific” costs and “transmission connection” costs will determine the amount of extension that becomes “rolled-in” and paid for by all customers through postage stamp rates.

APPENDIX B

Curriculum Vitae of Richard Stout

Richard Stout

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Overview

Richard Stout has been a member of the management teams of multiple major Western Canadian electricity generation and transmission utilities. His 30 year career comprises positions of progressive responsibility in Western Canada and the United Kingdom, and features post-graduate training in all aspects of the planning, construction and operation of electricity transmission systems and electricity generation. Mr. Stout has regularly testified before energy and utility regulatory boards and commissions in the provinces of Alberta and British Columbia, and the Northwest and Yukon territories.

Mr. Stout currently consults in the areas of electric utility management and regulation and is the Executive Director of the Association of Major Power Customers of B.C. (AMPC). Formerly the Joint Industry Electricity Steering Committee (JIESC), AMPC represents major industrial load customers in matters of electricity policy and regulation.

Mr. Stout's notable responsibilities have included:

- Reliability and protection of high voltage (HV) utility and industrial electric systems
- Major generation facility design and construction
- Integrated resource and transmission planning
- Demand side management (DSM) program development
- Tariff design and application, including contribution policies
- Preparing and defending "Needs" and Revenue Requirement Applications
- Electricity market design and restructuring
- Incentive regulation development

Education

<u>Imperial College, London</u>

- BSc. Electrical Engineering, 1974
    - Specialization in electric drives and power systems.

<u>University of Calgary</u>

- Masters of Business Administration, 1987
    - Specialization in finance and organizational theory.

Past Employment

Central Electricity Generating Board (CEGB), United Kingdom, 1974-1982

- **Engineer**, generation development and construction division
    - Involved in the design and construction of various U.K. power plants, including coal, oil, gas, pumped hydro storage and nuclear.
    - Specialized in prevention of loss of coolant accidents (LOCA) via improved reliability of grid system and standby power supply to UK nuclear power plants.

- During this period the CEGB was the sole public sector electricity generation and transmission utility for England and Wales within the United Kingdom.

TransAlta Utilities, 1982-1989

- **Supervisor, Customer Service and Rate Design**.
    - Developed and managed DSM programs and associated economic tests.
    - Managed cost of service development, rate design and applications for all customer classes including contribution policy.

- TransAlta Utilities is a major investor owned generation utility that operates generating facilities across North America and internationally.

Alberta Power, 1989-1998

- **Manager of Regulation and Forecasting**
    - Held several senior positions of progressively increasing responsibility for an investor-owned electric utility.
    - Responsibilities included development and defence of revenue requirements, cost of service and rate design and contribution policy for ATCO Electric and subsidiaries in the Yukon and NWT.
    - Part of the team that advised the Alberta Government on resolving the complex technical and economic challenges of transforming vertically integrated utilities into a desegregated market model with many buyers and sellers of electricity.

- Alberta Power was a member of the ATCO group of companies and eventually split into ATCO Electric, a transmission and distribution utility, and ATCO Power, a generation company that operates regulated and non-regulated generation facilities in multiple jurisdictions.

Alberta Transmission Administrator (TA), 1998-2003

- **Director of Regulation and Tariffs**
    - Lead the development of an Open Access Transmission Tariff (OATT) at the newly created TA that could accommodate intra and extra Alberta energy trades

and provide appropriate “price signals” for efficient transmission and generation development within Alberta.
    - Developed and managed the first competitive transmission procurements and a competitive ancillary service market.

- The TA was responsible for transmission planning, auxiliary services and management of an open access transmission tariff. In 2002 the TA and the System Operator were merged to become the current Alberta Electric System Operator (AESO).

<u>British Columbia Hydro Electric and Power Authority (BC Hydro), 2003-2005</u>

- Recruited to serve as BC Hydro’s first **Chief Regulatory Officer** (CRO)
    - Responsible for filing and managing all BCUC applications including Revenue Requirements, CPCN applications and related planning filings such as Long Term Acquisition Plans (LTAP).
    - At that time the CRO was also responsible for all rate design, cost of service studies and implementation.
    - Managed BC Hydro’s first revenue requirement and rates application (RRA) in 10 years.
    - Lead development and implementation of the stepped-rate industrial tariff and associated customer-baseline procedures.

- BC Hydro is the provincially owned generation and transmission utility in B.C.

<u>EPCOR, 2005-2010</u>

- Recruited by EPCOR as **Vice President, Regulatory and Environmental Affairs**
    - This regulatory role included diverse responsibilities, from filing regulated revenue and rate design applications to addressing market rules and transmission access in Alberta involving the “unregulated” side of the company, as well as dealing with and influencing many legislative changes as the Alberta market structure and environmental concerns developed.
    - These responsibilities included addressing the regulatory risks of EPCOR’s strategic acquisition of generation assets across North America, impact of CO2 regulations on existing plant economics and ultimately the restructuring into EPCOR and the generation-focused Capital Power “spin out” entity.

- EPCOR is a municipally owned generation and distribution utility (Edmonton Power). It expanded under the Alberta re-structuring to become a major generation builder/owner/operator across Canada and the U.S., and a major trader and retailer of energy in Alberta.

APPENDIX C

BC Hydro NTL Project Website Extract

A region with great potential

Historically, much of northwestern B.C. has lacked transmission infrastructure, yet the region holds the potential to deliver major economic benefits through responsible industrial development.

The area is also positioned to provide additional electricity through clean generation projects. Long-term access to safe, reliable, and clean electricity is the backbone of B.C.'s growing economy.

Project benefits: the power to attract, support industrial growth

At present, BC Hydro's high-voltage electricity transmission grid does not extend beyond Meziadin Junction to the north and Stewart to the west. Lack of grid power is viewed by many as a barrier to economic growth.

The Northwest Transmission Line will provide a reliable supply of clean electricity to attract and support new industrial growth. New industrial developments, such as mines, would support overall economic development in the region, by providing direct employment and encouraging development of retail and other support services.

Contact us

If you'd like to learn more about the project, please contact us by:

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Email

New sources of clean electricity

NTL will also provide a secure point of interconnection to the electricity grid for new sources of clean electricity developed by independent power producers (IPPs). More IPP-generated electricity will help B.C. meet the goal, set out in the recent BC Energy Plan, of energy self-sufficiency.

By providing a source of clean power to industrial development – and to certain off-grid communities – NTL will help reduce greenhouse gas emissions by decreasing reliance on diesel-electric power generation.

The results of these benefits would extend beyond northwest B.C. A robust northwest economy, clean power and lower emissions would benefit our entire province.

Clean Energy Agreements

On May 28, 2010, clean energy agreements between BC Hydro, BC Transmission Corporation (BCTC), Coast Mountain Hydro L.P., a wholly owned subsidiary of AltaGas Income Trust Ltd. (AltaGas), and the Tahltan Nation were announced by the Ministry of Energy, Mines and Petroleum Resources.

These agreements include:

- A $180-million umbrella agreement between AltaGas and BCTC for the construction and development of the NTL;
- An electricity purchase agreement between BC Hydro and AltaGas for the Forrest Kerr clean energy project near Bob Quinn Lake; and
- An impact benefit agreement between AltaGas and the Tahltan Nation for the Forrest Kerr project.

The NTL project also includes $130 million in funding through the Government of Canada's Green Infrastructure Fund, announced by Prime Minister Stephen Harper in September 2009.

The estimated ratepayer contribution to the NTL is expected to be offset by contributions from future clean, renewable energy projects and/or mine developments.

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