

1.0 INTRODUCTION

1.1 Background

British Columbia Hydro and Power Authority (“B.C. Hydro”, “the Utility”) is a Provincial Crown Corporation with the mandate to generate, transmit, and distribute electricity in British Columbia. B.C. Hydro operates under the *Hydro and Power Authority Act*, and is subject to regulation by the British Columbia Utilities Commission (“the Commission”, “the BCUC”).

On October 2, 1998, the BCUC issued Order No. G-89-98, which directed B.C. Hydro to file a Transmission Extension Policy by November 20, 1998. This direction followed from the Commission’s Decision (in the same Order) to remove the 5,000 kV.A minimum billing demand from Rate Schedules 1821 and 1848.

Removal of the 5,000 kV.A minimum created the opportunity for some larger Rate Schedule 1211 customers to move to Rate Schedule 1821. Rate Schedule 1821 customers receive power at transmission voltage, while Rate Schedule 1211 customers have electricity delivered at distribution voltage. However, the Commission directed that any requests by Rate Schedule 1211 customers to move to Rate Schedule 1821 be held in abeyance until after the filing and review of B.C. Hydro's Transmission Extension Policy.

At the time Order No. G-89-98 was issued, the Commission expected that B.C. Hydro's Transmission Extension Policy would address any potential impacts on the Utility’s systems caused by customer rate-switching. On November 25, 1998, B.C. Hydro informed the Commission that its Transmission Extension Policy would not consider customer rate-switching. Instead, this issue would be addressed in a bypass rate application.

By Order No. G-111-98, dated December 11, 1998, the Commission directed B.C. Hydro to file a bypass rate application by February 1, 1999. At the same time, the Commission lifted its restriction on customers switching from Rate Schedule 1211 to Rate Schedule 1821. By Order No. G-18-99, dated February 4, 1999, the Commission allowed B.C. Hydro to withdraw its Transmission Extension Policy, which it had filed on December 7, 1998.

On February 2, 1999, the Commission received a Bypass Rate Guidelines Application (the “Application”) from B.C. Hydro. Commission Order No. G-31-99 established a written hearing into that Application. The written hearing concluded on June 30, 1999, with the filing of reply argument.

1.2 Description of the Application

B.C. Hydro has applied, pursuant to the *Utilities Commission Act* (“the Act”) and, in particular, to Section 61, for a BCUC Order approving B.C. Hydro's Bypass Rate Guidelines (Tariff Supplement No. 44) that would be available to all general and transmission rate schedule customers.

B.C. Hydro has not sought approval of a specific bypass rate form. Instead, Tariff Supplement No. 44 describes a set of general principles that B.C. Hydro proposes to apply in determining when to offer a bypass rate to a customer. Each customer’s specific bypass rate application would result in a separate application to be filed and approved by the Commission as a special agreement (Application, p. 2).

According to B.C. Hydro:

... where an economically and physically viable alternative is available to a general or transmission rate customer at a lower cost, it may be in the interest of all customers for B.C. Hydro to offer an alternative lower rate than would otherwise be available to the customer. Offering such an option to the customer, in appropriate circumstances, avoids duplication of facilities, maximizes B.C. Hydro's revenues, which thereby reduce all customers’ contributions to B.C. Hydro's revenue requirement, and may minimize the risk of creating stranded assets (Application, p. 2).

B.C. Hydro describes its proposed Bypass Rate Guidelines as consistent with principles applied by the Commission with respect to BC Gas bypass rates. In particular, B.C. Hydro asserts that its Application is consistent with the principles endorsed by the Commission in its Decision of December 11, 1987 and in its letter of October 9, 1987 regarding Inland Natural Gas Co. Ltd.

B.C. Hydro further states that its Guidelines, in the form of a tariff supplement, would formalize these general principles into a set of rules that can be communicated to customers. According to the Utility,

this would provide clarification that the Commission's gas bypass principles are to be extended to the electric industry (BCUC IR1, Q1).

B.C. Hydro has not listed all types of facilities that might be considered as bypass facilities, but has said that its definition will generally apply to all regulated rate-base assets that could be bypassed by the customer. Two examples supplied by the Utility are: (1) a customer-owned substation built to bypass distribution facilities; and (2) in-the-fence (or on-site) generation (BCUC IR2, Q2).

B.C. Hydro's Bypass Rate Guidelines are proposed to work as follows:

General and transmission rate customers could apply to B.C. Hydro to negotiate a bypass rate, and applicants would provide B.C. Hydro with a study detailing the proposed bypass facility. If B.C. Hydro determined that the customer's bypass facility proposal was viable and credible, then the Utility would assess its own incremental cost to serve that customer. If the cost of serving the customer was less than the rate the customer currently pays, then B.C. Hydro may enter into negotiations for a bypass rate with the customer. If a bypass rate was negotiated between B.C. Hydro and the customer, then a joint application would be made to the Commission for approval (Application, pp. 3 and 4).

B.C. Hydro would seek to negotiate the highest bypass rate reasonably possible. In particular, B.C. Hydro would consider both quantifiable and qualitative components of the customer's bypass alternative in negotiating a bypass rate. The Utility would not disclose its Incremental Cost of Service during the negotiation process (Application, p. 5). This information imbalance between the Utility and the customer (that is, the Utility would know the customer's bypass cost, while the customer would not know the Utility's incremental cost) would, according to B.C. Hydro, correctly focus negotiations on the Customer's Cost of Bypass rather than on B.C. Hydro's Incremental Cost of Service (BCUC IR1, Q3 and Q6).

2.0 JURISDICTIONAL ISSUES

Two jurisdictional questions were raised by intervenors in this proceeding:

1. the opportunity for the Commission to consider the effect of the Bypass Rate Guidelines on parties other than ratepayers and shareholders (e.g., energy services companies); and
2. the opportunity for the Utility, in the context of the rate freeze, to offer reduced rates for some of its customers.

The first issue was raised by Aquila Canada Corp. (“Aquila”), when it stated that its specific focus in this proceeding was on the effect that the Bypass Rate Guidelines would have on private transformer placement (Final Argument of Aquila, p. 2).

B.C. Hydro responded to this position by arguing that the Commission does not have the jurisdiction to consider the effect of bypass policies on energy services companies, and by noting that the Commission’s *Retail Markets Downstream of the Utility Meter Guidelines* specifically placed the objective of supporting efficient competitive markets beyond the responsibility of the Commission (Reply Argument of B.C. Hydro, pp. 3 and 4).

The second jurisdictional question was raised by the Consumers Association of Canada (B.C. Branch) et al. [“CAC (B.C.) et al.”]. It argued that the *Tax and Consumer Rate Freeze Act*, as amended, and the regulations pursuant to it, prohibit the Commission from creating a new rate schedule that results in a rate decrease to a customer or class of customers [Final Argument of the CAC (B.C.) et al., p. 1].

B.C. Hydro counters this position by arguing that negotiated bypass rates will not be an amendment to a current rate schedule but will, instead, form the basis for new rate schedules. New rate schedules are permissible under the current legislation (Reply Argument of B.C. Hydro, p. 7).

2.1 Commission Determinations

The Commission’s primary responsibility is to protect ratepayers by setting rates and terms of service that are fair, just, and reasonable. Other issues may be considered to the extent that they will directly affect customers. The Commission can allow special pricing arrangements or competitive supply alternatives where these are in some customers’ interests, without causing undue harm to other

ratepayers or impairing the Commission's ability to set rates and terms of service which are otherwise fair.

On the jurisdictional concerns raised by the CAC (B.C.) et al., the Commission agrees with B.C. Hydro that new rate schedules may be initiated during the rate freeze period if they are for new services. The Commission is satisfied that the proposed services and rate schedules are new, and that the rate freeze legislation does not apply to them.

3.0 BYPASS PRINCIPLES

3.1 The Gas Model

B.C. Hydro states that its Bypass Rate Guidelines are consistent with those principles applied by the Commission with respect to BC Gas bypass rates and, in particular, are consistent with the principles described by the Commission in its Decision of December 11, 1987 and in its letter of October 9, 1987 regarding Inland Natural Gas Co. Ltd. (Application, pp. 2-3).

These principles are reflected in the following passages from, respectively, the October 9, 1987 letter, page 3, and the December 11, 1987 Decision, page (iv):

The Commission accepts [that bypass] rates should continue to reflect the cost that each individual customer would incur if it went to bypass...provided that those rates result in a positive contribution to other [utility] customers;

and

Where the utility has offered a competitive contract and the industrial customer has not accepted, the government should not grant approval for the bypass pipeline because there is a viable alternative and approval would increase the costs to be borne by the utility's other customers.

B.C. Hydro summarizes its Guidelines' compliance with these principles as follows:

Where a customer constructs a bypass alternative, the revenues to B.C. Hydro will be obviously lower than would otherwise be the case because a customer who bypasses part or all of the system eliminates or reduces its own such contribution. Consequently, all B.C. Hydro customers are impacted and among them must pay enough in rates, than would otherwise be necessary, to meet B.C. Hydro's revenue requirement. In such a circumstance, the interest of all ratepayers is obviously to allow a bypass rate to the bypass applicant to avoid constructing the bypass alternative. Such a final negotiated bypass rate is subject to Commission approval.

Another significant issue of concern to B.C. Hydro ratepayers is that B.C. Hydro recover from the bypass applicant an amount at least equal to B.C. Hydro's incremental cost of continuing to serve the applicant. For this reason the [Bypass Rate] Guidelines contemplate no bypass rate less than B.C. Hydro's Incremental Cost of Service, regardless of the cost of the bypass alternative. The Incremental Cost of Service analysis will be done by B.C. Hydro, will take into account foreseeable future expenditures and will be filed with the Commission (Final Argument of B.C. Hydro, p. 3).

B.C. Hydro argues that guidelines reflective of these principles would serve not only the direct interest of all B.C. Hydro customers, but would also lead to the most economic use and development of infrastructure. As such, B.C. Hydro describes the principles as uncontroversial (Final Argument of B.C. Hydro, p. 3).

The CAC (B.C.) et al. does find it controversial to apply the 1987 Inland Natural Gas decision to B.C. Hydro's current Application [Reply Argument of the CAC (B.C.) et al., p. 2], noting that there are fundamental differences between the gas market and the electricity market. The most obvious difference, according to the CAC (B.C.) et al., is that actual construction of a bypass pipeline was in 1987, and still is today, the only option (other than fuel switching) available to natural gas bypass customers. The CAC (B.C.) et al. contrasts this with B.C. Hydro's proposed guidelines which would count distributed generation as a bypass alternative, along with the construction of transmission and/or distribution bypass facilities [Final Argument of the CAC (B.C.) et al., p. 2].

In the same vein, the Joint Industry Electricity Steering Committee ("JIESC") notes that the proposed Bypass Rate Guidelines do not require an evaluation of B.C. Hydro's analysis of its Incremental Cost of Service, and that this raises the risk that the bypass rate system will have a "chilling effect" on the

development of new, alternative projects that could meet the needs of B.C. Hydro's customers (Final Argument of the JIESC, p. 1).

The CAC (B.C.) et al. argues that, as a matter of policy, the construction of distributed generation should not be discouraged, as it would be by the B.C. Hydro proposal. If a customer is in a position to construct a distributed generation facility, it should be encouraged to do so rather than subscribe to the B.C. Hydro

bypass rate. The CAC (B.C.) et al. argues that, under a bypass rate, incremental load growth will trigger enhancement of, or additions to, B.C. Hydro's facilities faster than would be the case if the customer simply left the system. In contrast, distributed generation provides a long-run benefit to B.C. Hydro's other customers that outweighs the short-term benefits of maintaining the customer on the B.C. Hydro system [Final Argument of the CAC (B.C.) et al., p. 2].

B.C. Hydro sees no inconsistency between its proposed guidelines and the construction of economic distributed generation projects. Indeed, B.C. Hydro believes that its guidelines will encourage the development of distributed generation facilities, where those facilities represent the least-cost option for serving load. B.C. Hydro confirms that any long-term benefits of distributed generation will be considered as part of the evaluation process, along with other qualitative factors (Reply Argument of B.C. Hydro, p. 7).

Willis Energy Services Ltd. ("Willis") is not satisfied by this assurance, noting B.C. Hydro's intention to keep confidential both the qualitative and quantitative factors used in its analysis of a bypass proposal (Final Argument of Willis, p. 1).

B.C. Hydro disputes the validity of this concern, stating that its proposal would not require a B.C. Hydro customer to convince the Utility of the viability of its economic alternative, whatever that alternative may be. A customer would always be free to bypass the B.C. Hydro system to the extent that it is physically able to do so (Reply Argument of B.C. Hydro, p. 7).

3.2 Commission Determinations

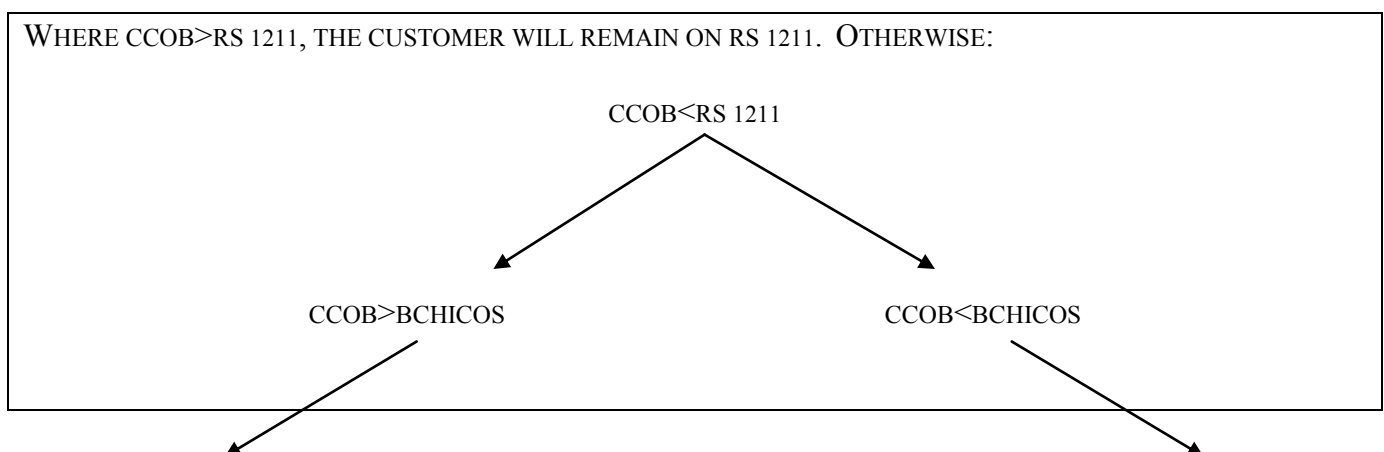
The Commission believes that the bypass principles described in the 1987 Inland Natural Gas Decision (and related correspondence) should be applied in establishing bypass principles for B.C. Hydro. This view is conditioned on limiting the parameters of B.C. Hydro's Bypass Rate Guidelines in two fundamental ways.

First, within the context of this Decision, distributed generation is seen by the Commission as a load-retention issue, subject to policies which are separate from bypass principles and guidelines. Specifically, the Commission draws an analogy between in-the-fence generation (in electricity) and fuel switching (in gas), and looks to examples such as Commission Order No. G-75-95 (concerning negotiated gas rates for Lafarge Canada Inc. and Tilbury Cement Ltd.) for principles that might best be applied when evaluating the economics of distributed generation.

Second, the Commission does not accept the broad definition of bypass facilities proposed by B.C. Hydro. Instead, the Commission sees the Bypass Rate Guidelines Application now before it as having very limited scope within the current environment. Specifically, the Commission is restricting the context of its Decision in this proceeding to the single case where transmission and/or distribution bypass issues might currently apply: switching from Rate Schedule 1211 to Rate Schedule 1821 (or its related schedules).

Within this narrow context, the issues before the Commission are consistent with the gas model. The Commission believes that customers with a viable option to construct a substation for the purpose of moving from Rate Schedule 1211 to Rate Schedule 1821 should be permitted to do so provided that their all-in cost of construction (“Customer’s Cost of Bypass”) is less than the Incremental Cost of Service supplied by the Utility. To the extent that the reverse is true – that is, the Customer’s Cost of Bypass is greater than the Utility’s Incremental Cost of Service – the customer should only be allowed to move to Rate Schedule 1821 if it pays the Utility a sum equal to the Customer’s Cost of Bypass. As in the gas model (and unlike B.C. Hydro's proposal), where a fair bypass rate is offered, the customer will be required to either accept it or remain on its existing tariff, eliminating concerns about stranding Utility assets. The Commission believes that customer contributions, under the Commission’s bypass model, will be sufficient so that no other charges for exit fees or stranded asset charges will be necessary.

The Commission, therefore, has described a floor price and a ceiling price. The floor price is the Utility’s incremental cost of service, and ensures the protection of other customers. The ceiling price is defined by the customer’s option to remain on Rate Schedule 1211. Customer bypass opportunities lie between these extremes, shown as follows:



RS 1821+RIDER REFLECTING CCOB

CUSTOMER BUILDS BYPASS +RS 1821

CCOB

CUSTOMER COST OF BYPASS

BCHICOS

B.C. HYDRO INCREMENTAL COST OF SERVICE

RS

RATE SCHEDULE

There principles are fair to bypass candidates since they ensure that the customer will pay no more with a bypass rate than it would cost to build and operate real bypass facilities. Other B.C. Hydro customers are protected since bypass candidates would only be offered a bypass rate when such a rate would result in a positive contribution to Utility revenues.

The Commission believes that a bypass customer should compensate the Utility through a new rate calculated by adding a rider to Rate Schedule 1821. This rider is payable over a period equal to the estimated life of the bypass facilities (anticipated to be approximately 20 years), and financed at the customer's weighted average cost of capital. The bypass customer may remain liable for the residual cost of bypass if service is terminated during the term of the payment period.

The Commission favours the rate-rider form of bypass payment in this case because the terms of Special Direction No. 8 require that any lump-sum payment to the Utility would be treated as equity, upon which the Utility would earn a return. Treating a bypass payment as equity would impose costs on other customers that they would not pay if the customer physically bypassed the system.

In view of these observations, the Commission does not accept B.C. Hydro's proposed Bypass Rate Guidelines (Tariff Supplement No. 44) Application. Instead, the Commission is issuing Bypass Rate Guidelines (Attachment A to this Decision, the "Commission's Guidelines") to assist parties in the preparation of bypass rate applications to the Commission.

The Commission's Guidelines are not appropriate for filing as a Tariff Supplement, since to do so would suggest the intention to enforce the Guidelines by way of sanctions or penalties. The Commission does not believe that it has the jurisdiction to evoke legal consequences for the failure to follow its Guidelines. The Commission's Guidelines are intended to provide direction to parties making a bypass rate application to the Commission. This application may be made by the customer alone, or it may be a joint application by the customer and the Utility.

Unlike the B.C. Hydro proposal for Tariff Supplement No. 44, the Commission's Guidelines do not speak to negotiations or other arrangements between customers and B.C. Hydro. B.C. Hydro may, at its

own discretion, issue guidelines governing approaches by the customer to the Utility for joint bypass applications to the Commission.

The remaining sections of this Decision provide supporting rationale for the Commission's Guidelines by way of reference to the evidence and argument filed in this hearing.

4.0 CUSTOMER'S COST OF BYPASS AND CONFIDENTIALITY

4.1 Customer's Costs of Bypass

A preliminary step in B.C. Hydro's proposed Bypass Rate Guidelines is the customer's submission to the Utility of a study detailing the proposed bypass facility. B.C. Hydro would then review and assess the customer's analysis and, if B.C. Hydro were to determine that the bypass facility is viable and credible, the Utility would assess its own Incremental Cost of Service to the customer (Application, p. 3).

In its Application, B.C. Hydro proposes to require information relating to the viability (both physical and economic) of the bypass facility, including, but not limited to:

1. an analysis of the cost of constructing, operating, and maintaining the bypass facility, and any other facilities required by the customer to operate the bypass facility;
2. an implementation plan for the bypass facility, including an assessment of the customer's ability to obtain any necessary permits, rights-of-way, or other conditions required for the operation of the bypass facility; and
3. the business case describing the viability of the proposed bypass facility and, where applicable, the supporting bypass offer from a third party (Proposed Tariff Supplement No. 44, p. 1).

B.C. Hydro has defined a "viable project" to be one that can and would be built by the customer in the event that a bypass rate were not offered by the Utility. B.C. Hydro has provided no exhaustive definition of the information or tests it would use to make a decision on the viability of a proposed project (Response to JIESC IR1, Q2).

Where there is a difference between the minimum acceptable design and construction standard and the standard employed by B.C. Hydro, this difference would affect the determination of a Customer's Cost of Bypass. B.C. Hydro has stated that the purpose of its review of the proposed facility would be to determine the project's viability. That determination would be based on the customer's design and construction standards [Response to JIESC IR1, Q4(d)].

4.2 Confidentiality

Confidentiality was another issue raised by some intervenors. The JIESC questioned how B.C. Hydro would determine a Customer's Cost of Bypass if that customer were "contractually unable to provide sensitive competitive information" [JIESC IR1, Q4(f)].

B.C. Hydro has indicated that, for its purposes, it should not be necessary for the customer to disclose confidential competitive information. Moreover, if such information were required by the Utility, the customer could still decide not to release it, and would then have the option to simply proceed with its bypass alternative or remain on its existing tariff [Response to JIESC IR1, Q4(a) and 4(e)].

Aquila has raised the concern that, under the B.C. Hydro proposal, bypass customers would have difficulty determining the cost of a bypass project since engineering and contracting firms would be discouraged from "even bidding on substation jobs if they know their work will just be used to justify not building anything." Moreover, Aquila asserts that those firms that do bid would submit inflated estimates (Final Argument of Aquila, p. 11).

4.3 Commission Determinations

By requiring submissions to the Commission of both the Customer's Cost of Bypass and the Utility's Incremental Cost of Service, the Commission's Guidelines eliminate concerns about negotiating with an asymmetrical disclosure of information between the Utility and the customer. The Commission is confident that a Customer's Cost of Bypass can be determined with an acceptable degree of accuracy. The nature of the facilities under consideration in this Decision are limited, and these types of projects – that is, substations and associated transmission lines – have well-understood cost characteristics. Right-of-way access and cost must be demonstrated by the bypass candidate. The Commission's Guidelines provide direction concerning the manner in which the Customer's Cost of Bypass may be calculated.

The Commission is similarly confident that issues around confidentiality can be managed, in part because these issues have not raised significant concerns in gas. **The Commission concludes that the**

confidentiality provisions of the *Utilities Commission Act* and Section 21 of the *Freedom of Information and Protection of Privacy Act* should be sufficient to handle any concerns in this area.

With respect to Aquila's concern about the availability of bids, the Commission believes that engineering firms will supply accurate and fair estimates of project costs on the understanding that they are being retained for that purpose alone.

5.0 INCREMENTAL COST OF SERVICE TO THE UTILITY

Under the B.C. Hydro proposal, if the Utility were to determine that a bypass facility proposed by a customer is viable and credible, then the Utility would assess its own Incremental Cost of Service for that customer (Application, p. 3). The specific method by which this incremental cost would be calculated is not discussed in the Application.

Aquila raises a number of concerns about the manner in which B.C. Hydro's Incremental Cost of Service might be calculated, and offers its own suggestions about how it should be done.

For example, Aquila observes that substation additions are, by their nature, "lumpy", so that one would expect the incremental cost of serving a customer would almost always be zero (the "free-rider" case). Occasionally, though, a customer's load would exhaust the existing capacity, in which case the incremental cost of serving that customer would be "many times the cost of a small dedicated transformer (the "last-straw" case)".

Aquila notes, further, that past (and sometimes small and arbitrary) engineering decisions can fundamentally change the cost allocations between customers. If a slightly larger or smaller transformer had been specified 20 years ago, for example, this would change which customers could "free-ride" and which customer was the "last straw".

Aquila argues that so-called system induced costs (cost differentials between customers based on past system design or engineering decisions, for example) should be cost averaged to the point where the

incremental cost approaches the fully-allocated cost. This, according to Aquila, is the only practical solution to the free-rider/last-straw problem (Final Argument of Aquila, pp. 11-15).

From this perspective, Aquila “strongly supports dismissing the Bypass Rate concept out of hand” and remaining with the “time-tested postage-stamp process and the long standing practice of allowing customers to provide their own transformer” (Final Argument of Aquila, p. 16).

Aquila does concede that there may be a “marginally defensible” case for departing from “strict averaging” where a facility has been built based on prudent growth forecasts, but those forecasts proved to be erroneous. If the resultant over-capacity cannot be reassigned for use elsewhere “for the very long future, it would reduce system costs to offer an incentive to a customer who would otherwise build a viable alternative that was above the long-run incremental cost”. However, Aquila believes that such a bypass event would be rare, and that the onus of proof should be heavy and lie with the Utility. The tests of this proof would include a series of steps:

1. The decision to construct the existing substation should be checked for prudence from the perspective of the time the decision was taken.
2. If a forecast of load growth was used at the time of construction, and if that forecast included loads that could have been encouraged to build their own substations (Aquila defines this as loads over 3.5 MW, although B.C. Hydro characterizes this figure as “unsupported by fact” [Reply Argument of B.C. Hydro, p. 4]) then those amounts would be removed to determine a “deemed prudent available capacity”.
3. The Commission should then consider evidence about how any “sustainable” idle capacity would be consumed over time, and should estimate this capacity “conservatively”. A bypass rate should be considered only if the capacity is “never likely to ever be used”.
4. The floor level of any bypass rate should be calculated as the net present value of all future advancements of possible reinforcements caused by the customer using up capacity on the existing units. Adjustments to the rate may need to be made for any impact on reliability, losses, and/or voltage stability.
5. The customer should have to revert to the General Service rate once idle capacity is exhausted.
6. B.C. Hydro should make annual reviews of the forecast date-of-expiry of the excess capacity (Final Argument of Aquila, pp. 16-17).

The JIESC also raises a number of concerns about the determination of B.C. Hydro's Incremental Cost of Service. First, the JIESC argues that since the proposed Bypass Rate Guidelines do not require an evaluation of B.C. Hydro's calculation of its Incremental Cost of Service, there is a risk that the Bypass Rate Guidelines will have a “chilling effect” on the development of projects that could meet the needs of B.C. Hydro's customers (Final Argument of the JIESC, p. 1).

Second, without a process to audit B.C. Hydro's calculation of its Incremental Cost of Service, there is the risk that B.C. Hydro will cross-subsidize its negotiated bypass rates by relying on revenues from other customers. The JIESC notes that if B.C. Hydro underestimates its Incremental Cost of Service for a given customer, the negotiated bypass rate could be lower than the amount required to recover the Utility's true costs, causing rates to rise for other customers. In the alternative, if B.C. Hydro overestimates its Incremental Cost of Service, then competitive options may be developed uneconomically, which would also increase customer costs.

To address these concerns, the JIESC suggests that B.C. Hydro should be required to submit its Incremental Cost of Service analysis for Commission review. The JIESC also argues that the Commission should set “ground rules” detailing how B.C. Hydro must calculate its Incremental Cost of Service. These ground rules would, for example, define which cost elements should be included in the analysis of the Utility's Incremental Cost of Service, the term over which facilities should be amortized, and the depreciation rates for various types of equipment. The JIESC also suggests that the Bypass Rate Guidelines must distinguish between long-term and short-term incremental costs, by recognizing that incremental costs will change over time (Final Argument of the JIESC, pp. 2 and 3).

B.C. Hydro was highly critical of Aquila's position in this hearing (Reply Argument of B.C. Hydro, p. 6). Specifically, the Utility argues that:

1. Aquila's suggestion that bypass rates be terminated upon the “filling” of a substation would be unfair to a customer who negotiated a credible bypass rate for a specified period of time and may no longer have the bypass rate available to it if the rate is prematurely terminated.

2. Directing a conservative estimate of idle transformer capacity would require a “subjective and arbitrary” increase to B.C. Hydro's Incremental Cost of Service, resulting in uneconomic bypass construction.
3. Aquila’s discussion of the free-rider/last-straw issue in its final argument should be disregarded by the Commission since it is in the nature of evidence. Moreover, the Utility dismisses Aquila’s concern in this area by stating that rate negotiations are to be based on the cost of the bypass alternative, whereas it is the Incremental Cost of Service calculation that considers substation capacity.
4. Virtually all of the criticisms implicit in Aquila’s suggestions about how a limited bypass program might be operated can be addressed with three observations: (1) B.C. Hydro's Application is considering only a process by which bypass rates can be determined; (2) B.C. Hydro will supply the Commission with its Incremental Cost of Service analysis when it applies for approval of a specific bypass rate; and (3) the Commission must review for prudence capital expenditures by B.C. Hydro, including expenditures for substation reinforcement and construction (Reply Argument of B.C. Hydro, pp. 3-6).

With respect to the concerns of the JIESC, B.C. Hydro reiterates that Item 6 of its proposed Bypass Rate Guidelines provides for the filing with the Commission of B.C. Hydro's Incremental Cost of Service study, a summary providing details of the bypass alternative, and the bypass rate in the form of a special agreement. B.C. Hydro further notes that the Commission can request further information if it feels that the material provided is inadequate (Reply Argument of B.C. Hydro, p. 3).

Confidentiality issues were also a concern with respect to the calculation of B.C. Hydro's Incremental Cost of Service. The Utility supports keeping its incremental costs confidential, on the grounds that this would focus bypass rate negotiations on the Customer’s Cost of Bypass (Response to BCUC IR1, Q3). The JIESC, as noted above, argues for Commission oversight of the B.C. Hydro analysis, but accepts that the Commission should hold that information confidential (Final Argument of the JIESC, p. 2). The CAC (B.C.) et al. objects to confidentiality provisions generally, arguing that customers who are affected by a Commission decision should have the opportunity to provide input throughout the decision-making process [Final Argument of the CAC (B.C.) et al., p. 3].

5.1 Commission Determinations

The Commission agrees with the JIESC that the methodology to be used for the calculation of the Utility's Incremental Cost of Service is a central issue in this hearing from the perspective of ratepayer protection. As well, the Commission believes that B.C. Hydro's Application is incomplete with respect to defining how the Incremental Cost of Service would be calculated.

The Commission is not satisfied with the notion that the Utility would provide its Incremental Cost of Service analysis to the Commission as part of a specific rate approval process, with the proviso that the Commission could always ask for more information if it needed it. **Since the Commission and others will always need to have confidence in the Incremental Cost of Service analysis of the Utility (albeit to varying degrees of accuracy, depending on the difference between B.C. Hydro's Incremental Cost of Service and the Customer's Cost of Bypass figures), the Commission deems it desirable to specify its information needs and its desired method of analysis up-front. For this reason, the Commission has outlined a recommended process for determining the Incremental Cost of Service, and this is contained in the Bypass Rate Guidelines that are Attachment A to this Decision.**

In formulating its Guidelines, the Commission accepts some aspects of Aquila's arguments (notably the free-rider/last-straw concern), but believes that Aquila has overstated the case by arguing that strict averaging is the only solution to the problem. Moreover, the Commission believes that the logic behind Aquila's narrow case for accepting bypass is, in essence, the logic behind the Utility's Application, simply with the threshold case set to a much tougher standard. The Commission's standards for gas bypass are less restrictive than those proposed by Aquila, and the Commission continues to believe that these standards strike an appropriate balance between the interests of bypass customers and all other customers.

With respect to confidentiality, the Commission notes that its Guidelines do not anticipate rate negotiations. As such, the strategic arguments of B.C. Hydro – that is, that the Incremental Cost of Service analysis is being withheld at the outset in order to focus negotiations on the Customer's Cost of Bypass – are moot. Other confidentiality issues could be managed in the manner described in

Section 4.3 of this Decision. The Commission believes that B.C. Hydro's analysis should be a public document except where issues of commercial sensitivity can be shown.

6.0 DISPUTE RESOLUTION MECHANISM

B.C. Hydro's Application contains no explicit dispute resolution mechanism. However, as noted in Section 5.0 of this Decision, Item 6 of B.C. Hydro's proposed Bypass Rate Guidelines provides for the filing with the Commission of its Incremental Cost of Service study, a summary providing details of the bypass alternative, and the bypass rate in the form of a special agreement. B.C. Hydro further notes that the Commission can request further information if it feels that the material provided is inadequate (Reply Argument of B.C. Hydro, p. 3).

Some intervenors, including Fording Coal Ltd. and the JIESC, suggested a more formalized dispute resolution process under the auspices of the BCUC. The JIESC, for example, suggested that, in the case of substations, the customer should have the right to make an application to the Commission if B.C. Hydro and the customer have material differences in estimated capital costs, service life, and cost of service (Final Argument of Fording, p. 12; Final Argument of the JIESC, p. 2).

B.C. Hydro rejects the notion of a dispute resolution mechanism, describing such a process as cumbersome, expensive, and likely to require the unnecessary disclosure of confidential customer information. This position is taken by B.C. Hydro in a context of Bypass Rate Guidelines in which the customer is always free to build its bypass alternative, regardless of a bypass offer from the Utility (Reply Argument of B.C. Hydro, p. 2).

6.1 Commission Determinations

Consistent with the gas bypass principles, the Commission's Bypass Rate Guidelines do not leave a customer free to build the bypass alternative when a fair bypass rate has been offered by the Utility. Under such conditions, the customer would have a legitimate interest in B.C. Hydro's Incremental Cost of Service.

From this perspective, the Commission sees no alternative but to have the BCUC available to adjudicate disputes concerning both the cost and viability of the customer's bypass alternative, and the Utility's Incremental Cost of Service; that is, issues related directly to establishing the rate paid by customers.

The Commission does not believe that such a process will be cumbersome or expensive. The Bypass Rate Guidelines which are Attachment A to this Decision suggest how both the Customer's Cost of Bypass and the Utility's Incremental Cost of Service may be calculated, so a review of both these analyses will not be an open-ended investigation.

Moreover, even without a dispute resolution mechanism, the Commission's mandate of ratepayer protection would require that before a bypass rate could be approved, an investigation would be conducted into the Customer's Cost of Bypass, and an assessment would be made to ensure that this figure exceeded the Utility's Incremental Cost of Service to that customer. Similarly, the Commission would require some mechanism to assess cases where the Utility did not offer a bypass rate, since uneconomic decisions of that type could also impose risks on ratepayers.

The Commission, therefore, sees any arbitration or mediation that it may provide as simply a temporal advancement of its role in the approval process, rather than an additional investment in time and regulatory expense. At the point of impasse, parties may wish to seek arbitration or mediation services from the Commission or any external party. If arbitration or mediation efforts are unsuccessful, then the Commission would expect to receive a disputed application from the bypass candidate.

Further, the Commission believes that the confidentiality concerns raised by B.C. Hydro can be managed in the manner discussed in Section 4.3 of this Decision.

DATED at the City of Vancouver, in the Province of British Columbia, this 3rd day of September 1999.

Original signed by:
Peter Ostergaard
Chair

Original signed by:
Lorna R. Barr
Deputy ChairChair

Original signed by:
P.G. Bradley
Commissioner

Original signed by:
Barbara L. Clemenhagen
Commissioner

BYPASS RATE GUIDELINES

The purpose of these Guidelines is to provide direction as to how the British Columbia Utilities Commission (“the Commission”) may consider bypass applications from the British Columbia Hydro and Power Authority (“B.C. Hydro”, “the Utility”) and its customers.

Application to Approve a Bypass Agreement

A B.C. Hydro customer receiving service on Rate Schedule 1211 who wishes to receive service on Rate Schedule 1821 (or its related schedules), and who believes that it can lower its cost of electricity by constructing and operating facilities that would bypass B.C. Hydro's distribution system, may seek a bypass rate from the Commission by filing an application. This application may be filed by the customer alone, or may be filed jointly with B.C. Hydro.

Customer Choices

Where a customer has been offered a bypass rate reflective of a charge no higher than the Customer's Cost of Bypass, the customer will be offered the choice to accept that rate or remain on Rate Schedule 1211.

Customer's Cost of Bypass

In seeking a bypass rate, the customer should provide the Commission with a study detailing its proposed bypass facility. Such a study should include the following:

- (i) a description of the bypass facility;
- (ii) an implementation plan for the bypass facility, including an assessment of the customer's ability to obtain necessary approvals, rights-of-way, and other conditions required for the operation of the bypass facility;
- (iii) the business case describing the viability of the proposed bypass facility; and

- (iv) an analysis of the after-tax cost of constructing, operating and maintaining the bypass facility, and any other facilities required by the customer to operate the bypass facility.

Item (iv), called the “Customer’s Cost of Bypass” should be calculated in accordance with the following principles:

A schedule of bypass assumptions should be created, encompassing information about:

- the bypass facility’s physical and technical characteristics;
- financial assumptions, including capital requirements, operating and maintenance expenses, taxes, depreciation and capital cost allowance rates, inflation rates, and amortization period; and
- the customer’s capital structure assumptions, including debt-to-equity ratio, cost of debt, and required return on equity.

In translating these assumptions into the Customer’s Cost of Bypass, all calculations should be made on an after tax basis. The amortization period of any assets should be equal to the life of the bypass agreement, and the latter may or may not include early termination or renewal clauses. In deriving levelized monthly or annual charges equivalent to the customer’s costs, the discount rate to be used should be an estimate of the customer’s required rate of return for new investments.

B.C. Hydro’s Incremental Cost of Service

The Commission will review the customer’s information. If the Commission determines that the proposed bypass facility is viable and credible, B.C. Hydro will be asked to assess and submit (if it has not done so as part of a joint application) its own “Incremental Cost of Service” in accordance with, but not limited to, the following principles:

- A schedule of incremental cost assumptions should be created, encompassing information about affected Utility assets, load growth forecasts respecting those assets, and the nature, scheduling and costs of foreseeable reinforcements with and without the customer’s proposed bypass.
- In the Utility’s Incremental Cost of Service, the Utility should forecast all relevant operating and system costs and discount these at the Utility’s weighted average cost of capital.

Rate Schedule 1821 Plus Rider

Where the Customer's Cost of Bypass exceeds B.C. Hydro's Incremental Cost of Service, the customer should be offered the opportunity to switch from Rate Schedule 1211 to Rate Schedule 1821 upon payment to B.C. Hydro of an amount equal to the Customer's Cost of Bypass. The form of this payment should be a rider added to Rate Schedule 1821, payable to the Utility over a period equal to the expected life of the bypass facility (anticipated to be approximately 20 years), and financed at the customer's weighted average cost of capital. The bypass customer may remain liable for the residual cost of bypass if service is terminated during the term of the payment period.

Rate Schedule 1821 Plus Bypass Construction

Where the Customer's Cost of Bypass is less than B.C. Hydro's Incremental Cost of Service, the Commission expects that no bypass rate would be offered and the customer would be free to either remain on Rate Schedule 1211 or construct the facilities necessary to qualify for Rate Schedule 1821.

Confidentiality

Requests for confidentiality under any part of these Guidelines will be considered on their merits, according to the terms of the *Utilities Commission Act* and Section 21 of the *Freedom Of Information and Protection of Privacy Act*. Where the Commission deems that confidentiality is justified, it will make determinations to accommodate that circumstance.

Commission's Disposition of the Application

The Commission may: (1) issue an Order approving an agreement between B.C. Hydro and the bypass customer, pursuant to Sections 60 and 61 of the *Utilities Commission Act* and in the form of a Tariff Supplement. Should a proposed agreement be unsatisfactory to the Commission, the Commission will either: (2) propose amendments to the contract, and request that the applicant(s) re-submit it; (3) undertake the process necessary to allow the Commission to amend the application before it; or (4) reject the application before it.