

Decision January 21, 1991

1.0 THE APPLICATION

1.1 Background

British Columbia Hydro and Power Authority ("B.C. Hydro") currently supplies electricity under various forms of contracts to Large Industrial customers in industries such as pulp and paper, mining, petroleum, petro-chemical, electro-chemical and others. At present, B.C. Hydro supplies about 90 customers whose aggregate consumption approximates 30 percent of its total system load.

These customers are supplied under the terms of contracts that have been individually negotiated over time. Consequently, the terms and conditions vary. B.C. Hydro has sought to standardize the terms and conditions under which this class of electricity service is provided.

B.C. Hydro has stated their policy objectives as follows:

- (i) to achieve terms and conditions for transmission customers which are fair and equitable, both within the class itself and as between transmission customers and other classes of customers; and
- (ii) to provide for the consistent treatment, insofar as site specific circumstances permit, of the various members of the transmission customer class.

(B.C. Hydro filing dated August 15, 1990)

1.2 History

1.2.1 Electricity Supply Agreement

The effort to design a standard form of contract began as early as 1982. Participation was invited from the affected customers, the majority of whom formed a joint industry committee called the "Industrial Users" group to whom copies of the initial draft contract were provided.

Subsequently, significant but sporadic discussion and negotiation over a period of several years ensued in an attempt to reach an agreement. In April 1989, B.C. Hydro produced its "Final Draft" and circulated it to all major Industrial customers for comment. This

precipitated several rounds of further discussion during 1989 which resulted in an impasse over a number of both major and minor items. The major matters were B.C. Hydro's basic obligations respecting type of service to be provided, force majeure provisions, and liability and indemnity in the event of a failure by B.C. Hydro to supply electricity.

On December 5, 1989, B.C. Hydro made a formal Application to the Commission for approval of a Standard Form Bulk Customer Electricity Supply Agreement ("Electricity Supply Agreement"), together with Tariff Sheets for Schedules 1821 and 1880. Coincident with its Application, B.C. Hydro took the position that, while a Commission hearing would probably be required to deal with major points of disagreement, it may be possible to resolve other issues with the assistance of Commission staff.

By letter of March 12, 1990, Counsel for the Industrial Users adopted a similar stance to the effect that the three major areas of principle remaining unresolved would require a hearing. He also referred to secondary matters which he felt could be resolved with the assistance of Commission staff.

1.2.2 Facilities Agreement

The Facilities Agreement had its genesis in 1987 when the utility embarked on the development of a Transmission Extension Policy. The draft policy was circulated to industry representatives and comments were received by both B.C. Hydro and the Commission. Although all the issues raised were not resolved, B.C. Hydro made a formal Application on September 19, 1988 to the Commission for approval of its new Transmission Extension Policy. Approval was deferred following advice from B.C. Hydro that further amendments were in progress.

In the December 5, 1989 Facilities Agreement Application, B.C. Hydro had only given cursory treatment to transmission extension. The Industrial Users took exception to Clause 6 which dealt with transmission extension, and expressed the following concern to the Commission, "it appears impossible to finalize the wording of the transmission extension clause of this Agreement until the transmission extension policy of B.C. Hydro has been finalized". The stage was therefore created for B.C. Hydro to expedite

completion of the Transmission Extension Policy which provided the basis for the Facilities Agreement.

At a pre-hearing conference on June 4, 1990, B.C. Hydro requested a delay in the hearing to allow the utility time to complete development of its Transmission Extension Policy which would be the basis for the preparation of the Standard Facilities Agreement for Transmission rate customers. The hearing was re-scheduled to commence October 16, 1990.

1.3 Pre-Hearing Activities

Information filed with the Commission on August 15, 1990, contained a statement from B.C. Hydro as follows:

"B.C. Hydro now proposes to have two agreements with each transmission voltage customer. One of these will be a Facilities Agreement, which will supersede all of the provisions respecting extensions that were previously included either in the current electricity supply agreements or as part of the Transmission Extension Policy filed with the BCUC in September, 1988. The second agreement will be the new Electricity Supply Agreement which will contain all of the other provisions included in the current agreements.

In general, a customer would execute the Facilities Agreement before any plant additions or alterations are undertaken, with the Electricity Supply Agreement being executed later when the particular electrical load is known with greater certainty."

At a further pre-hearing conference on September 14, 1990, B.C. Hydro and the Industrial Users requested a further delay of the hearing to November 19, 1990, to permit time for the parties to continue discussions. Participation of Commission staff in the negotiating process was requested to assist in focussing on and resolving issues. This was granted. Other interested parties were invited to participate but they elected to review the results only. These included B.C. Rail, Chevron Canada Ltd. and the Consumer's Association of Canada (B.C. Branch) ("CAC").

The process essentially took the form of open discussions on all the disputed issues, with a critical examination of all compromise solutions proposed. Prior to commencement of the

hearing, copies of interim proposals prepared by the negotiating group were circulated to all intervenors for information and comment.

The hearing convened on November 19, 1990. Following opening statements by the Chairman and Counsel appearing, a draft of the Electrical Supply Agreement was distributed to all participants but was not filed as an exhibit. The document was described as a product of intense negotiation but still incomplete. Counsel for B.C. Hydro explained that it was the intention of the negotiating group to circulate a more complete draft to all parties within one or two days. With the concurrence of all parties the hearing was adjourned to November 26, 1990. On that date the hearing was further adjourned to December 4, 1990.

Comments on the negotiations and pre-hearing conferences have been included here to demonstrate that the negotiation process can be effective, particularly where there are technical issues to be resolved between the utility and a discrete and sophisticated group of customers.

2.0 ELECTRICITY SUPPLY AGREEMENT

2.1 Introduction

At the hearing on December 4, 1990, an amended Application was filed (Exhibit 5) which incorporated the Electricity Supply Agreement ("Supply Agreement"), drafts of proposed Rate Schedules 1821 and 1880, and an Appendix. Counsel for B.C. Hydro described the Supply Agreement as:

"a collection of compromise positions which have been very carefully drafted to reflect what is, in many instances, the absolute limit of what the respective parties were prepared to accept at the negotiating table" (T 27 and 28).

The hearing was adjourned to December 17, 1990 at which time an amended Supply Agreement was filed as Exhibit 6. This exhibit had been circulated to all Registered Intervenors and to Bulk Transmission customers. No one was opposed to the adoption of the proposed Supply Agreement.

Even with the compromises attained there are several important provisions in the Supply Agreement which both parties felt should be reviewed after three years have passed (T 42). This review could be instigated by any party or by the Commission. This agreement will provide for new terms of service to be implemented without binding all parties to the full impact of the new provisions if it is found that unexpected results develop. Some of the more significant clauses of the Supply Agreement are dealt with in detail in Section 2.2.

2.2 Principal Issues

2.2.1 Clause 5 - Frequency, Voltage

The quality of the electric service with respect to frequency and voltage was of great concern to both the Transmission customers and B.C. Hydro. While the customers would normally want a high quality service delivered within a narrow range of fluctuation, B.C. Hydro faces situations where it may require broader latitude in service quality. Over time, system growth may result in changes to service quality. In clause 5(b) B.C. Hydro guarantees that, with specified customer plant usage and normal B.C. Hydro operating conditions, the service voltage will be maintained within a specified percentage of a set level. B.C. Hydro has agreed that if the service voltage is normally at or near the lower or upper limits of the range set out in clause 5(b), and is impairing the operations of the customer, B.C. Hydro and the customer will take such action as may reasonably be required to relieve the impairment. By clause 5(b), B.C. Hydro has also committed not to set unreasonably broad voltage limits and that existing customers will have existing voltage limits incorporated into their new agreements.

2.2.2 Clause 6 - Contract Demand, Increases in kV.A Demand

The difficulty between the Transmission rate customers and B.C. Hydro with respect to Contract Demand and Maximum kV.A Demand was essentially that the existing contracts provide for demand levels, in some cases, significantly above the needs of a customer. B.C. Hydro would naturally wish to optimize its system by setting demand levels equal to the needs of customers. The new clause does that, but it has been agreed that in

determining the margin between the Contract Demand and the Maximum kV.A Demand, B.C. Hydro shall take into account the existing margin and shall not normally set a margin of less than 10 percent. The determination of the 10 percent margin is a compromise position recognizing past practise and the needs of B.C. Hydro in special circumstances.

2.2.3 Clause 8 - Power Factor

The determination of wording for the Power Factor clause was most contentious between the parties. B.C. Hydro's desire is to achieve more efficient use of electricity by raising the existing power factors to a minimum level of 95 percent. As a compromise it was agreed that power factors in existing agreements would remain at previously agreed upon levels. New customers would be required to meet a power factor of at least 95 percent lagging. A power factor of unity represents the most efficient use of electrical power supplied. In some cases this may be difficult or expensive to achieve. B.C. Hydro and the Industrial Users agree that this clause should be reviewed by the Commission three years after the agreement comes into force, at which time B.C. Hydro may seek to have all customers meet a minimum power factor of 95 percent lagging.

The three year review period will allow customers to consider cost effective improvements which would allow them to meet the 95 percent lagging criterion. Moreover, B.C. Hydro may consider incentives to assist the customers through its Power Smart program; and, it may become a non-issue if those customers with a 90 percent lagging power factor voluntarily improve over the next three years.

As a final note, there may be specific situations were B.C. Hydro does not require the high power factor for the efficiency of its operations, and a particular customer may require that a low power factor be acceptable to the utility since necessary corrective action would be too costly. This may be the case with B.C. Rail operations at Tumbler Ridge. In such specific cases the industrial customer and B.C. Hydro may undertake studies and determine the most cost effective operation on an individual location basis.

2.2.4 Clause 10 - Billing, Payment of Account

New provisions have been added concerning the reduced grace period before a bill becomes overdue and concerning the interest payable on overdue accounts, so as to bring the agreement in line with arrangements used by other British Columbia utilities. The interest rate provisions are generally more beneficial to customers than previously existed.

2.2.5 Clause 16 - Force Majeure

Determination of the force majeure clause was one of the most contentious items. The resultant clause appears to provide fairly the opportunity to both parties for some relief under force majeure circumstances clearly beyond their control. Adjustments in B.C. Hydro revenue projections and all costs incurred by B.C. Hydro, including administrative costs, resulting from claims for a billing adjustment due to a force majeure are recognized as specific to this class of customer.

It was also agreed that this clause and sub-clause 18(d) should be reviewed by the Commission three years after the agreement comes into force. Specifically, B.C. Hydro has been concerned that the administrative costs and potential liability under force majeure may prove to be very onerous for the utility. It was shown during negotiations that history does not support that position, but future costs may occur beyond that currently expected. If this should occur, it is the intention that the costs will be passed on solely to this class of customer. Depending on the nature of the cost, the Commission may wish to review the impact of liability under this clause during the three year period.

2.2.6 Clause 17 - Suspension of Supply

The wording of Clause 17 was adjusted in negotiations to recognize the needs of B.C. Hydro to maintain its system while also recognizing the needs and rights of a customer to require that disruptions from any suspensions which may occur be kept to a minimum.

2.2.7 Clause 23 - Liability, Indemnity, Limitations and Requirements for Notice

This very important clause was resolved through compromise whereby B.C. Hydro, while not warranting a continuous supply of electricity, will, nevertheless, assume a limited liability for certain acts and omissions. This is an entirely new arrangement and represents a significant departure from past practise. Included with the clause are provisions which define the limits of that liability and set out requirements for notice to be given by the customer.

In sub-clause 23(a) B.C. Hydro's duty of care is defined as being that which is imposed by common-law on a municipality or other government authority. Counsel for B.C. Hydro expounded on this duty of care when he stated (T 39) that "This concept is based on the proposition that B.C. Hydro, as a publicly owned utility, should be subject to the same tests as other public authorities when it comes to the standard of care in an action founded on the tort of negligence". He referred to the legal test described in the decision of the Supreme Court of Canada in Just v. British Columbia (1989) 103N.R.1.

As a note to this clause, B.C. Hydro and the Industrial Users agree that all costs incurred by B.C. Hydro, including administration costs, resulting from claims for liability and indemnity are recognized as costs of service specific to Transmission rate customer classes. Further, B.C. Hydro and the Industrial Users agree that this clause should be reviewed by the Commission three years after it comes into force. Such a review will allow the Commission to reflect on the successful implementation of these new provisions, or whether their impact warrants variations to the provisions contained in Clause 23.

2.2.8 Rate Schedules 1821 and 1880

Counsel for B.C. Hydro noted that the consensus wording for these schedules was not meant to impair the right of any party to take issue with the specific rate levels therein at a future rate design or rate hearing. Secondly, with respect to Schedule 1880, he stated that the note following that schedule is meant to identify that B.C. Hydro may seek to have this schedule of service deleted at a future date. If a successful power pool arrangement is

devised, or an alternative service is proposed, then Schedule 1880 may be amended or deleted following application by B.C. Hydro and determination by the Commission.

2.2.9 Footnotes to Clauses

The Supply Agreement and Facilities Agreement are, in several respects, substantially different from contracts now in existence. However, there is a need to recognize certain rights inherent in the term of these original contracts. B.C. Hydro Counsel said that the documents would be used to produce legally binding contracts but that each contract must "speak for itself" when being interpreted by a court or other tribunal (T 27 and 28).

For these reasons, the participants felt the need to qualify certain clauses in the Agreement with footnotes. In some cases these footnotes quantify certain characteristics of electrical supply. In other cases they support a review by the Commission of the impact of certain clauses following three years of experience. The notes are not intended to be part of the final official agreement or tariff schedule, but have been inserted to record separate understandings which the parties have reached. Both B.C. Hydro and the Industrial Users requested that these understandings be incorporated into the Commission's Reasons for Decision (T 30).

3.0 FACILITIES AGREEMENT

3.1 Introduction

The Facilities Agreement (Exhibit 7), stipulates the terms and conditions under which new facilities are to be constructed to supply Transmission rate customers who are proposing to add new loads which require transmission extensions, system reinforcements or both.

This Agreement will ensure the consistent application of an Extension Policy and System Reinforcement Policy which have previously not been formalized in the tariff, and consequently were subject to variations in site specific applications.

Appended to the Facilities Agreement as Appendix 1 is a delineation of the new tariff provisions respecting system reinforcement and transmission extension policies for permanent service. The standard Facilities Agreement is structured to embody mainly the customer specific and site specific information and refers to the tariff provisions in Appendix 1 for the basic policy matters applicable to Transmission rate customers.

As was the situation with the Electricity Supply Agreement, B.C. Hydro's Counsel advised that "the Facilities Agreement and its Appendices were the subject of protracted negotiations between B.C. Hydro and the Industrial Users' Committee, again supervised by the staff of the Commission. Accordingly, Exhibit 7 supersedes all previous filings in this regard by B.C. Hydro" (T 68). The final version of the proposed Facilities Agreement was circulated to all Registered Intervenors, and all Transmission rate customers served by B.C. Hydro, for review and comment. There was no objection or expression of concern to the adoption of the Agreement as drafted. Counsel for B.C. Hydro stated that, "an analysis of the document will reveal that it does not create any significant new financial impacts when compared with the arrangements which are currently in place" (T 77) and later on, "B.C. Hydro does not anticipate that this document will result in significant adverse impacts on B.C. Hydro's revenue requirements" (T 77). This provided some comfort to Counsel for CAC who remarked, "Given Mr. Moseley's comments with respect to the anticipated impacts on Hydro's revenue requirements of this particular agreement, I have no objection to it being approved" (T 81).

3.2 Principal Issues

3.2.1 Clause 1 - Tariff Provisions, Facilities Agreement

Incorporated as an integral and important part of the Facilities Agreement is Appendix 1, the proposed new "Electric Tariff Provisions Respecting System Reinforcements and Transmission Extension Policies for Permanent Service". Information contained in these tariff provisions include a delineation of those costs and tasks for which the customer has the primary responsibility, and those obligations which rest with B.C. Hydro. The tariff also stipulates the financial and other obligations of the parties.

The most important concept in these provisions sets out responsibility for system reinforcement, transmission line extension, land acquisition and construction. These are of sufficient importance that Counsel for B.C. Hydro felt it worthwhile to quote from Clause 1 of the Application and Overview, the provisions set out in sub-clause 1(b):

- "(i) System Reinforcement is the responsibility of B.C. Hydro, who shall undertake the required work and provide an offset for the expense;
- (ii) the Basic Transmission Extension is the responsibility of B.C. Hydro, who shall undertake the required work at the Customer's expense;
- (iii) a Customer requiring service at transmission voltage shall undertake the design, approval, land acquisition and construction of the Transmission Line to connect with B.C. Hydro's system, where it is reasonable, practical and economic to do so;
- (iv) where it is not reasonable, practical or economic for the Customer to undertake the necessary design, approval, land acquisition or construction of the Transmission Line, B.C. Hydro shall undertake these activities at the Customer's expense;
- (v) it is the responsibility of the Customer to establish that the provision of electrical service by B.C. Hydro to the Customer's Plant is in the public interest; and
- (vi) a Customer who constructs its own Transmission Line may elect to retain ownership or to transfer it to B.C. Hydro."

(T 70 and 71)

A significant departure of this tariff from current B.C. Hydro policy is that the Customer now shares the responsibility with B.C. Hydro for obtaining approval, permits, licenses, easements and right-of-way for new facilities. Clause 3, Approvals, states that the Customer shall, "on all relevant applications", have the prime responsibility for demonstrating that the provision of electrical service by B.C. Hydro to the Customer's Plant is in the public interest. It is also agreed that the party responsible for the installation and construction shall use "all reasonable efforts" to obtain the necessary approvals, and that the other party shall provide "all reasonable assistance". Counsel for B.C. Hydro went on to state that sub-clause 3(b) "recognizes that in certain instances B.C. Hydro may have

to be involved, particularly in terms of obtaining right-of-way, in which case the customer shall provide all reasonable assistance" (T 72).

3.2.2 Appendix I - Clause 5

A contentious issue in the tariff provisions of the Facilities Agreement was the matter of security deposits for system reinforcement costs incurred by B.C. Hydro. The matter was resolved by appending a footnote to the clause that was acceptable to both parties. In referring to this, Counsel for B.C. Hydro stated, "This note records the fact that the industrial users and B.C. Hydro take somewhat different positions as to the arrangements for retaining security deposits" (T 76). He went on to add, "In the end, both parties have agreed to recommend the provisions as shown in this document, on the basis that they wish to reserve their rights to raise this issue again in a future rate or rate design proceeding" (T 76).

3.2.3 Clause 2 - Facilities Description

Appendix 2 to the Facilities Agreement describes the actual plant to be constructed or installed by both B.C. Hydro and the customer to facilitate the supply of electricity to the customer's plant.

3.2.4 Clause 3 - Frequency Voltage, Contract Demand Power Factor, Fault Contribution

B.C. Hydro commits to maintain the above essential parameters of frequency, voltage and fault contribution within certain specified limits if the customer's load is at or above 75 percent of Contract Demand, and the agreed to power factor is maintained.

The process of negotiations for this clause is covered in the Electricity Supply Agreement.

3.2.5 Clauses 4 to 9 - Completion Date, Amounts Payable Term of Agreement, Successors, Assigns, Notice, Law

These clauses contain standard provisions which the Commission understands did not require extensive negotiations.

4.0 DECISION

Efforts by B.C. Hydro to design a standard form contract for Bulk Transmission rate customers have been proceeding since 1982. In some respects it is unfortunate that it has taken so long. However, in the end result, a process of negotiation evolved which was most productive and highly successful. Through the dedicated efforts and good will of representatives of B.C. Hydro, the Industrial Users and Commission staff, compromises were reached on contentious issues. This led to the preparation of two important Agreements in a form acceptable to all of the parties involved.

Commenting on the negotiation process, Counsel for B.C. Hydro had this to say:

"I want to recognize on the record that the success of the negotiations over the last month is largely attributable to the good will, the good faith, and, indeed, the good humour, demonstrated by all of the participants, including the representatives and counsel for the various parties, and, in particular, the staff and counsel of the Utilities Commission.

I firmly believe that this process has produced a product that is far superior to that which could have been achieved in a traditional adversarial hearing, while simultaneously saving the Commissioners and others the time and expense of such a hearing."

The Commission is entirely satisfied with the results of this negotiation process and appreciates the spirit of equanimity shown by the participants in negotiating their respective positions. The flexibility and good will demonstrated may well set the pattern for future proceedings where seriously contentious items may be resolved through negotiation prior to the commencement of a hearing. However, the Commission recognizes that negotiated settlements may not be appropriate for all situations.

The Commission was given the assurance that the agreed terms and conditions of the Electricity Supply Agreement and Facilities Agreement would have no financial impact on

any other rate classes. The agreement of the parties, coupled with the lack of inter-class financial impact has been most persuasive in convincing the Commission to accept the negotiated documents.

In conclusion, the Commission approves the Standard Form Electricity Supply Agreement and the Standard Form Facilities Agreement contained herein as Appendix 5.1 and 5.2.

DATED at the City of Vancouver, in the Province of British Columbia, this day of January, 1991.

John G. McIntyre, Chairman

W. Milton Swanson, Commissioner

Ken L. Hall, Commissioner

IN THE MATTER OF the Utilities Commission
Act, S.B.C. 1980, c.60, as amended

and

IN THE MATTER OF an Application by
British Columbia Hydro and Power Authority

BEFORE:	J.G. McIntyre,)	
	Chairman;)	
	W.M. Swanson, Q.C.,)	January 21, 1991
	Commissioner; and)	
	K.L. Hall,)	
	Commissioner)	

O R D E R

WHEREAS:

- A. On December 5, 1989, pursuant to Section 67(1) of the Utilities Commission Act ("the Act"), British Columbia Hydro and Power Authority ("B.C. Hydro") filed an Application for Commission approval of standard form Terms and Conditions of contracts for electric service to bulk transmission rate customers together with Electric Tariff Sheets for amendments to Rate Schedule 1821 General Service - Transmission, and the filing of Rate Schedule 1880 - General Service Transmission - Emergency, Maintenance and Special Supply; and
- B. These terms and conditions have been the subject of negotiations between B.C. Hydro and the Mining Association of British Columbia, the Council of Forest Industries of B.C. and the Electro-Chemical Users of B.C. (collectively known as "the Industrial Users") for a number of years; and
- C. On March 12, 1990 the Industrial Users, in a letter to the Commission, identified three major areas of principle, namely: Basic Obligations (reserve and supply), Force Majeure, and Liability and Indemnity, upon which the parties had been unable to agree, and requested that these issues be resolved by the Commission after a hearing. The letter also identified several secondary matters which remained unresolved; and
- D. On April 19, 1990 the Commission considered the Application, the representations made by B.C. Hydro and the Industrial Users and determined that all unresolved issues pertaining to the standard form contracts should be the subject of a public hearing and issued Commission Order No. G-29-90 which set the hearing date for June 25, 1990 and a Pre-Hearing Conference for June 4, 1990; and

- E. On June 8, 1990, at the request of B.C. Hydro, the Commission delayed the commencement of the public hearing to October 16, 1990 in order to allow B.C. Hydro and the Industrial Users more time upon which to complete negotiations and discussions; and
- F. On August 15, 1990, B.C. Hydro filed consolidated versions of the Standard Industrial Contracts which were designated: Electricity Supply Agreement and Facilities Agreement; and
- G. On September 14, 1990 a Pre-Hearing Conference revealed that B.C. Hydro and the Industrial Users were progressing satisfactorily in discussions on the standard form contracts and a further delay in the proceedings was warranted; and

- H. On September 14, 1990 the Commission further delayed the start of the proceedings to November 19, 1990 in order to allow for continued meaningful discussions on the contracts; and
- I. On November 19, 1990 the public hearing commenced and after two subsequent adjournments in order to allow for continued, meaningful negotiations between all parties, the final hearing date into the proceeding occurred on December 17, 1990; and
- J. The Commission has considered the Application and the evidence adduced thereon all as set forth in the Decision issued concurrently with this Order.

NOW THEREFORE the Commission hereby orders B.C. Hydro as follows:

- 1. The Standard Form Electricity Supply Agreement, identified as Appendix 5.1 in the Decision, is approved as a Tariff Supplement and is required to be filed in B.C. Hydro's Electric Tariff in Electric Tariff format.
- 2. The Standard Form Facilities Agreement, identified as Appendix 5.2 in the Decision, is approved as a Tariff Supplement and is required to be filed in B.C. Hydro's Electric Tariff in Electric Tariff format.
- 3. All related agreements made with respect to responsibilities, intents and future reviews, inclusive of footnotes to individual clauses of the Agreements, are approved.
- 4. The Commission will accept, subject to timely filing, amendments to Rate Schedule 1821, General Service - Transmission and the filing of Rate Schedule 1880, General Service Transmission - Emergency, Maintenance and Special Supply consistent with the Directions contained in the Commission Decision.
- 5. B.C. Hydro will provide all customers served under Rate Schedules 1821 and 1880 copies of the Commission's Decision and the approved Electric Tariffs.

DATED at the City of Vancouver, in the Province of British Columbia, this day of January, 1991.

BY ORDER

W.M. Swanson, Q.C.
Commissioner

5.1 Electricity Supply Agreement

**PROPOSED AGREEMENT
(subject to approval by the B.C.U.C.)**

THIS ELECTRICITY SUPPLY AGREEMENT, made as of
the__day of , 19
for _____.

BETWEEN:

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY,
having its head office at 970 Burrard Street,
Vancouver, British Columbia

(herein called "B.C.Hydro")

OF THE FIRST PART

AND:

having an office in British Columbia at

(herein called the "Customer")

OF THE SECOND PART

WITNESSES THAT the parties declare and agree as follows:

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Schedule 1821, General Service

- Transmission (5000 kV.A. and over)

Schedule 1880, General Service

- Emergency, Maintenance and Special Supply

Appendix:

- Provisions Respecting Transmission Extension and Site Specific Matters

GENERAL DEFINITIONS

1. In this Agreement:
 - (a) "Billing Demand" means the kV.A Demand used for billing purposes, all in accordance with the provisions of Schedule 1821;
 - (b) "Billing Period" means a period of from 27 to 35 consecutive days between two regular meter readings and there shall be not less than 12 Billing Periods in any period of 52 consecutive weeks. Following the installation of suitable metering, the Billing Period will be a calendar month Billing Period from 0800 hours local time, at the Customer's Plant, on the first day of the calendar month to 0800 hours on the first day of the following calendar month, provided that the Billing Period may be varied by agreement between B.C.Hydro and the Customer;
 - (c) "B.C.Hydro's Guide" means the guide prepared by B.C.Hydro and titled "Guide & Requirements for Service at 69,000 to 287,000 volts", as amended or replaced from time to time;
 - (d) "Contract Demand" is the kV.A Demand which B.C. Hydro is obligated to supply under this Agreement as specified in clause 6;
 - (e) "Customer's Plant" means _____
_____;
 - (f) "Electricity" means electrical power and electrical energy. Power is measured and expressed in kilowatts (kW) or kilovolt-amperes (kV.A) and energy is measured and expressed in kilowatt-hours (kW.h);
 - (g) "Endangerment or Interference" has the meaning set out in clause 19.
 - (h) "Force Majeure" has the meaning set out in clause 16.
 - (i) "kV.A Demand" means the power demand of the Customer's Plant, determined over a time interval of 30 consecutive minutes and reduced to the next lowest whole number of kV.A;
 - (j) "Maximum kV.A Demand" means the kV.A Demand which is the greater of:

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- (i) 85 percent of the Contract Demand as set out in subclause 6(a); or
- (ii) the highest kV.A Demand previously established at the Customer's Plant during the 47 Billing Periods immediately preceding, or the lesser number that the Customer's Plant has been in operation excluding the initial 4 Billing Periods immediately following the Customer's Plant start-up date;
- (k) "Point of Delivery" means _____ ;
- (l) "Point of Metering" means _____ ;
- (m) "Power Factor" means the ratio, expressed as a percentage, of kW to kV.A when both are measured simultaneously over a specified time interval;
- (n) "Schedule 1821" means Schedule 1821, General Service - Transmission (5000 kV.A and over) of the B.C. Hydro Electric Tariff as amended or replaced from time to time, filed as required by the Utilities Commission Act, S.B.C. 1980, c. 60;
- (o) "Schedule 1880" means Schedule 1880, General Service - Transmission - Emergency, Maintenance and Special Supply (5000 kV.A and over) of the B.C. Hydro Electric Tariff as amended or replaced from time to time, filed as required by the Utilities Commission Act, S.B.C. 1980, c. 60;
- (p) "Strike" means a strike as defined in the Industrial Relations Act, R.S.B.C. 1979, c. 212; and
- (q) "Unlawful Industrial Action" means an unlawful industrial action as defined in the Industrial Relations Act, R.S.B.C. 1979, c. 212.

BASIC OBLIGATIONS

- 2.(a) B.C.Hydro will supply Electricity to the Customer up to the Contract Demand at the Point of Delivery and the Customer will pay for Electricity, all in accordance with the provisions of this Agreement which incorporates, by reference, Schedule 1821 and the Appendix containing provisions respecting

transmission extensions and the site specific matters.

- (b) B.C.Hydro may also supply additional Electricity for emergency, maintenance and special supply purposes to the Customer at the Point of Delivery and the Customer will pay for such Electricity, all in accordance with the provisions of this Agreement which incorporates, by reference, Schedule 1880.
- (c) Schedule 1821 and Schedule 1880 are attached as Schedules to this Agreement and B.C.Hydro will provide to the Customer a copy of all amendments or replacements to such schedules.

COMMENCEMENT DATE

- 3. (a) The "Commencement Date" is the date upon which B.C. Hydro will be willing and able to supply Electricity to the Customer, for the Customer's Plant, at the Point of Delivery. It is also the date upon which the Billing Periods for the Customer will commence and upon which the obligation to pay for Electricity will commence.
- (b) The Commencement Date shall be _____ unless otherwise agreed or suspended by Force Majeure.

TERM OF AGREEMENT

- 4. (a) Unless otherwise provided for by this Agreement, this Agreement shall be in force for an initial term of ____ from the Commencement Date and, unless terminated at the end of the initial term, shall extend until terminated in accordance with this Agreement.
- (b) Either party shall give the other party not less than 6 months notice if it intends to terminate the Agreement at the end of the initial term or thereafter and upon expiration of the notice period, this Agreement shall terminate.

FREQUENCY, VOLTAGE

5. (a) The Electricity to be supplied by B.C.Hydro at the Point of Delivery shall be three phase alternating current, at a frequency of 60 Hz + 0.1 Hz.
- (b) If and when the Customer is maintaining the Power Factor required by this Agreement and the Customer's Plant is operating at or above 75 percent of Contract Demand then the service voltage shall be within +/- _____ percent of _____ volts under B.C.Hydro system normal operating conditions. Short term variations of the service voltage may occur due to sudden load changes or as a result of system contingency or emergency situations.
- (c) If and when the frequency and voltage at the Point of Delivery are within the limits set out in subclauses (a) and (b) then B.C. Hydro shall be deemed to be willing and able to supply Electricity to the Customer's Plant.

In the event that the service voltage is normally at or near the lower or upper limits of the range set out in subclause (b) and is impairing the operations of the Customer, B.C. Hydro and the Customer agree to take such action as may reasonably be required to relieve the impairment.

- (d) If and when the frequency or voltage, or both, are outside the above limits then such occurrences shall be deemed to be a suspension in the supply of Electricity to the Customer's Plant unless the Customer continues to take Electricity.

Note:

The entire +/- 3 percent normal regulated range specified in the Guide shall be within the range specified in subclause 5(b) and B.C. Hydro commits to change the Guide to reflect this restriction. B.C. Hydro will not set unreasonably broad voltage limits in subclause 5(b) and existing customers will have existing voltage limits incorporated into their new agreements.

CONTRACT DEMAND, INCREASES IN kV.A DEMAND

6. (a) The Contract Demand under this Agreement is kV.A. The Customer shall not exceed the Contract Demand without the prior approval of B.C. Hydro.

The Customer may nominate an increase in the Contract Demand and, subject always to B.C. Hydro's ability to supply, B.C. Hydro shall not unreasonably refuse to permit the nominated increase provided that any such increase is subject to the Electric Tariff Provisions Respecting System Reinforcement and Transmission Extension Policies for Permanent Service.

- (b) The Customer may increase its Maximum kV.A Demand within the limit of the Contract Demand, over any period of 12 consecutive months by the amounts hereinafter set forth:

- (i) For an amount less than _____ kV.A no notice is required; and
- (ii) For an amount greater than _____ kV.A notice from the Customer to B.C. Hydro is required and B.C. Hydro shall identify the date when such an increase can commence, which will depend on work that may be required on the B.C. Hydro electrical system to facilitate the supply of the increase requested.

- (c) Subject to B.C. Hydro being willing and able to supply the increased Maximum kV.A Demand, the minimum Billing Demand during the 12 Billing Periods immediately following the effective date identified by B.C. Hydro pursuant to subclause 6(b) shall be 75 percent of the sum of:

- (i) the increase specified in the request; and
- (ii) the highest Billing Demand for the Customer's Plant in the immediately preceding period of November to February, both months included.

Note:

In determining the margin between the Contract Demand and the Maximum kV.A Demand B.C. Hydro shall take into account the existing margin and shall not normally set a margin of less than 10 percent.

CUSTOMER'S PROTECTIVE AND CONTROL EQUIPMENT AND OTHER DEVICES

7. (a) In accordance with the technical requirements set out in B.C. Hydro's Guide, the Customer, at its cost, will supply, install, operate and maintain in good working order all protective and control equipment to isolate the Customer's Plant and to interrupt fault current from the B.C.Hydro electrical system and, when applicable, fault current from the Customer's Plant. B.C.Hydro may refuse to supply Electricity to the Customer or suspend the same at any time if, in B.C. Hydro's judgment, the equipment is not compatible with or not suitable for the B.C.Hydro electrical system.
- (b) B.C.Hydro may from time to time make tests of such protective and control equipment at the Customer's Plant.
- (c) The Customer shall inform B.C. Hydro of the type, ratings or settings of such protective and control equipment at the Customer's Plant and B.C.Hydro shall have the right to accept or reject such type, ratings or settings. The Customer shall not change the type, ratings or settings without obtaining, in advance, the acceptance, in writing, of B.C.Hydro and in the event that the settings are changed the Customer shall promptly advise B.C.Hydro in writing of the change.
- (d) Any judgment by B.C.Hydro, its servants or agents in connection with the protective and control equipment at the Customer's Plant shall not be interpreted by the Customer or others as an endorsement of the design or as a warranty by B.C.-Hydro, its servants or agents of the safety, durability or reliability of the devices.
- (e) The initial three-phase symmetrical fault contribution at _____ kV from the B.C. Hydro electrical system, when operating normally, at the Point of Delivery shall be not less than _____ MV.A. The ultimate three-phase symmetrical fault contribution from the B.C. Hydro electrical system shall not exceed _____ MV.A.
- (f) Unless otherwise agreed, the Customer shall not install any equipment or device whatsoever on the B.C. Hydro electrical system.

POWER FACTOR

8. (a) If and when the kV.A Demand of the Customer's Plant is greater than 75 percent of the Maximum kV.A Demand, the Customer shall make all reasonable efforts to ensure that the Power Factor at the Point of Delivery measured over an interval of 5 minutes is not:
- [- "less than ____ percent lagging"; or
 - "lagging"; or
 - "lagging or more than ____ percent leading"; or
 - "less than ____ percent lagging or more than ____ percent leading".]

(one only of the above on a site specific basis)

- (b) In the event that the Customer fails to maintain the Power Factor specified under subclause 8(a), and such failure results in an operational problem for B.C. Hydro, then B.C. Hydro may, in addition to any other remedies it has under subclause 8(c) or any other provision of this Agreement, require the Customer to reduce load if necessary to maintain the integrity of its system or portions thereof.
- (c) B.C. Hydro shall advise the Customer in writing of the particulars of a specific operational problem caused by the Customer's failure to maintain the specified Power Factor and shall provide an estimate of B.C. Hydro's costs to accommodate the Power Factor deviation and provide 15 days for the Customer to initiate corrective action. If required, B.C. Hydro shall consult with the Customer to determine the cause of the failure to maintain the specified Power Factor and to discuss possible remedies. Following such advice or consultation, if the Customer does not commence to take all reasonable action to achieve the specified Power Factor within 15 days, then B.C. Hydro may initiate any necessary alterations to its system and the Customer shall pay to B.C. Hydro the cost of any such work within 15 days of receipt of the bill.
- (d) If the specified Power Factor is less than 95 percent lagging the Customer will undertake reasonable investigations and appropriate action to improve its Power Factor over time.

Note:

Power Factors in agreements for existing Customers shall remain at previously agreed upon levels. New Customers will be required to meet a Power Factor of at least 95 percent lagging. Further, B.C. Hydro and the Industrial Users agree that this clause should be reviewed by the BCUC three years after the Agreement comes into force at which time B.C. Hydro may seek to have all customers meet a minimum power factor of 95 percent lagging.

NOTICES

9. (a) Unless otherwise provided for by this Agreement, a notice, consent, request, demand, statement or bill that either party may be required or may desire to give to the other party shall be in writing and shall be deemed to be given to and received by the addressee on the business day next following when it is delivered by hand, by courier, by telex, or by facsimile copier, and is deemed to be given when received if delivered by prepaid mail at the address that each party shall give notice of from time to time.
- (b) The address that B.C.Hydro gives notice of is:
- (c) The address that the Customer gives notice of is:

BILLING, PAYMENT OF ACCOUNTS

10. (a) B.C.Hydro will provide bills, including advance bills at the election of the Customer, from time to time to the Customer for each Billing Period for Electricity and for any other amount as it becomes owing to B.C. Hydro under this Agreement but failure to provide a bill, or a correct bill, shall not release the Customer from liability for payment of any amount.
- (b) Each bill shall become due one business day after being delivered to the Customer and in the case of bills other than advance bills shall become overdue if it is unpaid, in whole or in part, by the Customer 15 days from the day the bill is due. Advance bills shall become overdue 55 days from the day the bill is due.
- (c) The Customer will, by electronic funds transfer or other method as agreed to in advance by B.C. Hydro, pay to B.C.Hydro's General Bank Account the amount shown on each bill, without setoff or withholding, at par in Canadian funds before such bill becomes overdue.
- (d) Any unpaid amount of any overdue bill shall be subject to interest at the rate of interest which is equal to the annual rate of interest declared from time to time by the lead chartered bank in Canada used by B.C. Hydro as the rate of interest charged by such bank to its most creditworthy commercial borrowers for loans in Canadian dollars payable on demand and commonly referred to as its "prime rate", plus:
- (i) 2 percent from the last day of the applicable Billing Period for the first 30 days that the payment remains unpaid and 5 percent thereafter until the same is paid where the Customer has not, during the immediately preceding 6 Billing Periods, failed to make any payment when due hereunder; or
- (ii) 5 percent from the last day of the applicable Billing Period until the payment is made where the Customer has, during the immediately preceding 6 Billing Periods, failed to make any payment when due hereunder.
- (e) Ten days after giving the Customer notice that a bill is overdue, B.C. Hydro, in lieu of or in

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addition to any other remedy provided by this Agreement may suspend the supply of Electricity to the Customer until all bills are paid in full and B.C.Hydro's servants or agents may enter the Customer's Plant to undertake such suspension. No such suspension by B.C.Hydro shall relieve the Customer from any provision of this Agreement, including the payment of any amount payable, nor shall suspension be deemed to be a termination of this Agreement and the validity or duration of this Agreement shall be otherwise unaffected.

- (f) B.C. Hydro may appropriate an amount equal to any overdue amount of any bill from a security deposit established by the Customer with B.C. Hydro pursuant to clause 12 of this Agreement if and when any bill or part thereof becomes overdue.

ADVANCE BILLING

11. At any time, the Customer may provide reasonable notice to B.C. Hydro that it has elected to receive from B.C. Hydro and pay, in accordance with clause 10, advance bills for the amount, estimated by B.C. Hydro, to be owing for a future Billing Period by that Customer to B.C. Hydro. Notwithstanding subclause 10(b), any advance bill shall be due 10 days prior to the first day of the future Billing Period and is late if it is unpaid, in whole or in part, by the Customer 10 days from the day the advance bill is due. Provided that the Customer does not allow the advance bill to become late, B.C. Hydro will entitle the Customer to a discount on the amount estimated by B.C. Hydro to be owing. The discount shall be equal to the interest payable on the said amount over a 45 day period at the simple rate of interest payable on January 1, April 1, July 1 or October 1, whichever is most recent to the Billing Period, for 30-day Government of Canada Treasury Bills for the denomination of \$100,000. All amounts paid under the advance billing and payment plan shall be subject to adjustment in the following Billing Period to fully and properly reflect the actual amount owing for the advance Billing Period. The Customer may, subject to clause 12, upon reasonable notice to B.C. Hydro, elect to return to B.C. Hydro's regular billing procedures set out in clause 10.

SECURITY DEPOSITS

12. (a) If:

- (i) the Customer has not maintained an account with B.C. Hydro for the purchase of Electricity under Schedule 1821 for the immediately preceding two years;
- (ii) the Customer, at any time, has permitted any account under this Agreement to become overdue and has not supplied information which reasonably satisfies B.C. Hydro that the Customer is creditworthy; or
- (iii) B.C. Hydro is not satisfied, on a reasonable basis, that the Customer is creditworthy;

then, after B.C. Hydro has provided the Customer with a written statement, which either indicates that an account has not been maintained for two years or which sets out the reasons for not accepting that the Customer is creditworthy, the Customer shall choose one of the options set out in subclause 12(b).

- (b) The three options available to a Customer in the circumstances set out in subclause 12(a) are as follows:
 - (i) to commence and maintain payments on a current basis pursuant to the advance billing and payment plan established by B.C. Hydro as described in clause 11, provided that this option shall not be available if the Customer has previously participated in the said plan and, in so doing, has made a late payment to B.C. Hydro;
 - (ii) to supply certified statements showing a two year projection of the Customer's operating revenues and expenses and, where applicable, certified financial statements for the three years immediately preceding including notes as to the basic assumptions used, all of which statements B.C. Hydro agrees to hold in confidence; or
 - (iii) to establish and maintain with B.C. Hydro a security deposit as described in subclause 12(d).
- (c) If, on the basis of reasonable criteria used in evaluating the certified statements referenced in subclause 12(b)(ii), B.C. Hydro is not satisfied

as to the creditworthiness of the Customer, then the Customer shall either:

- (i) commence and maintain payments on a current basis pursuant to the advance billing and payment plan established by B.C. Hydro as described in clause 11, provided that this option shall not be available if the Customer has previously participated in the said plan and, in so doing, has made a late payment to B.C. Hydro; or
 - (ii) establish and maintain with B.C. Hydro a security deposit as described in subclause 12(d).
- (d) A security deposit shall be in an amount equal to two times the Customer's normal bill, as estimated by B.C. Hydro for a Billing Period, and it shall be in a form which has the prior approval of B.C. Hydro. This may include:
- (i) irrevocable letter of credit;
 - (ii) contract bond;
 - (iii) guarantee by a corporation other than the Customer;
 - (iv) bank term deposit, to be deposited in trust for B.C. Hydro; or
 - (v) negotiable bearer bond, that is government guaranteed at face value.
- (e) Any security deposit will be returned to the Customer, or released to the guarantor, as appropriate, when the conditions requiring security no longer exist.
- (f) If all or part of any bill becomes overdue, then B.C. Hydro may appropriate all or any part of any security deposit towards payment of such bill and thereupon the Customer's right to such security, or any part of that security so appropriated, shall terminate.
- (g) B.C. Hydro will not pay interest on any security deposit held by it. The Customer may arrange with its bank to pay any interest earned on a bank term deposit, deposited in trust for B.C. Hydro, directly to the Customer's account.

METERING

13. (a) Determination, directly or indirectly, of the kilovolt-amperes, kilowatt-hours, or other factors or quantities shall be made by B.C.Hydro at the voltage at the Point of Delivery, unless otherwise agreed by B.C.Hydro, by means of meters owned, installed, operated and maintained by B.C.Hydro at the Point of Metering.
- (b) All meters and metering apparatus supplied by B.C. Hydro or the Customer for revenue purposes shall not be moved or removed from the Point of Metering without prior consent of B.C. Hydro.
- (c) The Customer shall act as a prudent owner would and protect the meters and metering apparatus of B.C. Hydro at the Customer's Plant, and will pay to B.C. Hydro the cost of repairing or replacing meters or metering apparatus missing or damaged except to the extent that the Customer can reasonably show that such was missing or damaged due to a defect therein or to an act or omission of B.C. Hydro, its servants or agents.
- (d) B.C. Hydro, but not the Customer, may test, calibrate, remove, install, substitute or otherwise change the revenue metering equipment from time to time at any reasonable time and the Customer may have a representative present at such time.
- (e) The Electricity and Gas Inspection Act, R.S.C. 1985, c.E-4 or re-enactment of the same shall govern metering under this Agreement.
- (f) Notwithstanding any statutory provision to the contrary, should the revenue metering equipment fail to register correctly or for any reason meter readings be unobtainable, the amount of Electricity supplied will be estimated by B.C.Hydro from the best information available, including the Customer's records, if any, during the Billing Period in question and such estimate, except in the case of manifest error, shall for billing purposes have the same force and effect as an exact meter reading.
- (g) Further technical requirements in connection with metering are set out in B.C. Hydro's Guide.

B.C.HYDRO'S EQUIPMENT & DEVICES & ACCESS TO CUSTOMER'S PLANT

14. (a) B.C.Hydro may install at its cost at the Customer's Plant any equipment or device which, in B.C.Hydro's judgment, is required for B.C.Hydro use or convenience in exercising its rights, or carrying out its obligations under this Agreement and all such equipment or devices, whether affixed or otherwise, by B.C.Hydro at the Customer's Plant shall remain the property of B.C.Hydro.
- (b) To the extent that it may be necessary, the Customer hereby grants to B.C.Hydro, its servants or agents, for the initial term, any extension, and a reasonable time thereafter, the free and uninterrupted right to enter the Customer's Plant for any purpose related to this Agreement.
- (c) The rights hereby granted to B.C.Hydro shall be exercised subject to prior notification and to any reasonable requirement of the Customer necessary for the safety or security of the Customer's Plant and employees or for continuity of the Customer's operations.
- (d) Nothing contained in this clause shall impair the right of B.C. Hydro to terminate service pursuant to this Agreement.

REMOVAL OF EQUIPMENT AND DEVICES

15. Upon termination of this Agreement, each party shall remove within 90 days of receipt of a written request by the other party, all of its plant and equipment from the other's lands and premises, except those which are located by B.C.Hydro on a right-of-way granted by the Customer to B.C. Hydro.

FORCE MAJEURE

16. (a) In this Agreement, the term Force Majeure includes but is not limited to Strikes, legal lockouts, other labour disturbances (including exercises of non-affiliation rights but excluding illegal lockouts), fire, flood, accidents, tempest or acts of God, sabotage or acts of the Queen's enemies, acts or failure to act by lawful authority or any other cause whatsoever beyond the reasonable control of the parties, provided that in no event shall lack of finances, loss of markets or inability to perform due to the financial condition of either party constitute Force Majeure.
- (b) Where expressly provided for by this Agreement, and subject to subclause 18(d), if either party is or was wholly or partly unable, because of a Force Majeure, to perform an obligation and claims that a Force Majeure is occurring or has occurred and reasonably establishes that fact, then the performance of the obligation shall be deemed to be suspended provided always that:
- (i) the suspension shall be of no greater scope and no longer duration than the Force Majeure; and
 - (ii) the non-performing party shall use all reasonable efforts to counter the Force Majeure or to otherwise remedy its inability to perform the obligation.

Note:

B.C. Hydro and the Industrial Users agree that adjustments in B.C. Hydro revenue projections, and all costs incurred by B.C. Hydro, including administrative costs, resulting from claims for a Billing Adjustment due to Force Majeure are recognized as specific to this class of customer. Further, B.C. Hydro and the Industrial Users agree that this clause and subclause 18(d) should be reviewed by the BCUC three years after the Agreement comes into force.

SUSPENSION OF SUPPLY

17. (a) B.C. Hydro may, without notice to the Customer, suspend the supply of Electricity to the Customer for the purpose of protecting against harm to human life or property of any person.

- (b) B.C.Hydro may, without notice to the Customer, deliberately or unintentionally suspend the supply of Electricity to the Customer in the event of a breakdown or failure of any component of B.C. Hydro's electrical system or an event for which B.C. Hydro could claim Force Majeure pursuant to clause 16.
- (c) At any time in the event of a shortage of Electricity whether actual or apprehended by B.C.-Hydro, B.C.Hydro may request that the Customer suspend or reduce its taking of Electricity at the Point of Delivery but if the Customer does not so suspend or reduce then B.C. Hydro may suspend or reduce the supply of Electricity to the Customer. B.C.Hydro will make all reasonable efforts to give notice, in writing or otherwise, and to treat alike all Customers under substantially similar circumstances and conditions of service of the same description.
- (d) B.C.Hydro may, after notice to the Customer in writing or otherwise, suspend the supply of Electricity to the Customer for the purpose of maintaining and making repairs, renewals, extensions or replacements to B.C. Hydro's electrical system. All such suspensions shall be of the shortest duration reasonably possible and, whenever reasonably possible, after taking into account Customer requirements and impacts, shall be arranged to occur at a time least objectionable to the Customer.
- (e) Nothing in this clause shall restrict B.C.Hydro's right to discontinue, suspend or reduce the supply of Electricity to the Customer in accordance with other provisions of this Agreement.

BILLING ADJUSTMENTS

- 18. (a) If the Customer claims and reasonably establishes to B.C.Hydro that there has been a reduction in the taking of Electricity by the Customer, as a result of a cause expressly stated in this clause then B.C.Hydro shall make the adjustments, herein called the "Billing Adjustments", set out below. The Customer may elect to have Billing Adjustments based upon a lesser period than the total period during which it has been forced to reduce the taking of Electricity and, should the Customer so

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elect, the Billing Adjustments set out below will be calculated in accordance with the lesser period and the mean value of kV.A during that period. Billing Adjustments shall only be made in calculating a bill for the Billing Period when the reduction is occurring or has occurred.

- (b) The kV.A Demand applicable to the time when the reduction is occurring or has occurred shall be deemed to be:

$$BD_R = \frac{K}{LF}$$

where:

BD_R = the reduced Billing Demand

K = the mean value of kV.A during such time; and

LF = the load factor at which the Customer took Electricity in the immediately prior Billing Period when the taking or supply of Electricity was not reduced.

- (c) If the time over which the reduction is occurring or has occurred is less than the whole of the Billing Period, then:

- (i) the Demand Charge applicable to such time shall be:

$$\text{Demand Charge} = BD_R \times R \times \frac{H}{H_{BP}}$$

where:

BD_R = the reduced Billing Demand as above;

R = the Demand Charge set out in schedule 1821;

H = the number of half-hour intervals during such time; and

H_{BP} = the number of half-hour intervals during the Billing Period; and

- (ii) the Demand Charge applicable to the balance of the Billing Period shall be:

$$\text{Demand Charge} = \text{BD}_N \times R \times (\text{H}_{\text{BP}} - H)$$

$$\text{H}_{\text{BP}}$$

where BD_N = the Billing Demand

and R, H and H_{BP} have the meanings given above.

- (d) A suspension, pursuant to clause 16, for more than 4 consecutive hours shall be cause for Billing Adjustments to be made by B.C. Hydro, except that in the case of the Strikes, legal lockouts, and other labour disturbances (including exercises of non-affiliation rights but excluding illegal lockouts), Billing Adjustments for both causes shall be limited to a collective maximum of 1440 hours in any calendar year. Further, Billing Adjustments for each occurrence of an Unlawful Industrial Action shall not be made if the suspension is for less than twelve (12) consecutive hours and, in any event, the Billing Adjustments for any such occurrence shall be limited to a maximum of five (5) days.
- (e) Unless the Customer continues to take Electricity, a frequency or voltage, or both, for more than 1 hour outside the limits established in clause 5 shall be cause for Billing Adjustments to be made by B.C.-Hydro.
- (f) A suspension or reduction, pursuant to clause 17, for more than 1 hour shall be cause for Billing Adjustments to be made by B.C.Hydro.
- (g) A suspension or discontinuance pursuant to clause 10 or suspension pursuant to clause 19 shall not be cause for Billing Adjustments to be made by B.C.-Hydro.
- (h) In addition to the Billing Adjustments set out above, B.C.Hydro may, in its judgment, make other Billing Adjustments from time to time so as to decrease the bills for the Customer's Plant to reflect unusual or unanticipated conditions or events in such plant.

ENDANGERMENT, INTERFERENCE

19. (a) "Endangerment or Interference" includes:

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- (i) the introduction of harmonics into B.C.Hydro's electrical system;
- (ii) the creation of undue and abnormal voltage fluctuations on B.C. Hydro's system;
- (iii) the depression or elevation of the voltage level on B.C. Hydro's system below or above the voltage range provided by B.C. Hydro to the customer for Electricity supplied under normal operating conditions; and
- (iv) the creation of an undue voltage imbalance between phases.

Normal standards for subclauses (i) to (iv) are provided in B.C.Hydro's Guide.

- (b) The Customer shall make its best efforts to take or use Electricity so as not to cause an Endangerment or Interference with the B.C.Hydro electrical system, or in connection with Electricity supplied to any other Customer of B.C.Hydro, but if such occurs then:
 - (i) B.C.Hydro may require the Customer, at the Customer's cost, to take corrective action including the provision of corrective equipment; or
 - (ii) if, in the judgment of B.C.Hydro, the Endangerment or Interference is critical then B.C.Hydro may, without notice to the Customer, suspend the supply of Electricity until the Customer takes corrective action.

PARALLEL OPERATION

- 20. The Customer may operate an electrical generating plant, at the Customer's Plant, connected to the B.C.Hydro electrical system, provided always that the Customer provides notice to B.C.Hydro reasonably in advance of parallel operation of such plant, and provided always that:
 - (a) the Customer shall install in advance, at its cost, on its electrical system the protective and control

equipment required, including that required in the judgment of B.C.Hydro;

- (b) the Customer shall pay in advance to B.C.Hydro the cost of the protective and control equipment required, in the judgment of B.C.Hydro, on the B.C.Hydro electrical system and this equipment shall be the property of B.C.Hydro and shall remain so upon termination of this Agreement unless the Customer pays to B.C.Hydro the costs of adapting the system to operate without that equipment; and
- (c) the Customer shall follow operating orders or guidelines established by B.C.Hydro and provided to the Customer from time to time for parallel operation.

CONNECTIONS

- 21. Except as provided for by local operating order or by operation of a switching device, connections to or disconnections from B.C.Hydro's electrical system shall be made only by B.C.Hydro's servants or agents or such other persons as B.C.Hydro may specifically authorize or permit.

NON-WAIVER

- 22. No failure by B.C.Hydro or the Customer at any time or from time to time to enforce or require a strict observance or performance of any of the provisions of this Agreement shall constitute a waiver of such provisions or affect or impair such provisions or the right of B.C.Hydro or the Customer at any time to enforce such provisions or to avail itself of any remedy it may have.

LIABILITY, INDEMNITY, LIMITATIONS AND REQUIREMENTS FOR NOTICE

- 23. (a) B.C. Hydro does not warrant a continuous supply of Electricity or the maintenance of unvaried frequency or voltage and B.C. Hydro, its servants or agents, shall not be liable to the Customer for any loss, injury, damage or expense of the Customer caused by or resulting from any suspension, discontinuance or defect in the supply of Electricity, alleged or caused by an act or omission of B.C. Hydro, its servants or agents, except for direct loss or damage to the physical property of the Customer resulting from wilful misconduct or negligent acts or omissions by B.C.

Hydro, its servants or agents.

For greater certainty, it is agreed that "direct loss or damage to the physical property of the Customer" shall not include inconvenience, mental anguish, loss of profits, loss of earnings or any other indirect or consequential loss. It is further agreed that the duty of care imposed upon B.C. Hydro will be the common law duty of care imposed upon a municipality or other government agency. It is also further agreed that B.C. Hydro shall not be liable for direct loss or damage which could have been prevented, in whole or in part, if the Customer had taken reasonable protective measures.

It is also further agreed that B.C. Hydro shall not be liable under this subclause unless the Customer has given notice to B.C. Hydro of a potential claim within 7 days of when the Customer knew or ought to have known of the alleged direct loss or damage.

- (b) The liability of B.C. Hydro under subclause 23(a) applies only when the direct loss or damage to the Customer arising from a single occurrence exceeds the sum of \$10,000.00. In no event shall the liability of B.C. Hydro exceed the sum of \$1,000,000.00 for any single occurrence.
- (c) B.C. Hydro shall indemnify the Customer from all liabilities for claims, demands, suits, losses or damages brought against the Customer arising out of damage to property or injury to persons resulting from wilful misconduct or negligent acts or omissions by B.C. Hydro, its servants or agents, if and when they enter the Customer's Plant.

Note:

B.C. Hydro and the Industrial Users agree that all costs incurred by B.C. Hydro, including administration costs, resulting from claims for Liability and Indemnity are recognized as costs of service specific to transmission rate customers. Further, B.C. Hydro and the Industrial Users agree that this clause should be reviewed by the BCUC three years after it comes into force.

RESALE OF ELECTRICITY

24. The Customer shall not sell, or otherwise dispose of for compensation, all or part of the Electricity supplied

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pursuant to this Agreement to any other person directly or indirectly without prior authorization from the British Columbia Utilities Commission and notice to B.C.-Hydro.

ACTION ON DEFAULT

25. Subject to other provisions of this Agreement, if the Customer fails at any time in the performance of its obligations under clauses 20 or 21 or subclauses 6(a), 6(b), 7(c), 7(f), 13(b), 13(c), 13(d) or 14(b) and does not, within 30 days after B.C.Hydro has given to it notice of such failure, commence to remedy with due diligence, and thereafter continue to remedy the matter in which it is in default, B.C.Hydro may, without terminating this Agreement, after the expiry of 5 days' notice given to the Customer by B.C.Hydro of its intention to do so, and without liability therefor, discontinue the supply of Electricity to the Customer, but no such discontinuance shall relieve the Customer from any obligation under this Agreement. B.C.Hydro shall not be obliged to resume the supply of Electricity to the Customer until such failure shall have been remedied.

SUCCESSORS, ASSIGNS

26. This Agreement shall enure to the benefit of and be binding upon the parties and their respective successors and assigns, provided, however, that this Agreement shall not be transferred or assigned by the Customer without prior consent of B.C.Hydro, which consent shall not be unreasonably withheld.

HEADINGS

27. The headings in this Agreement are provided for convenience only and shall not be used to interpret the Agreement.

PRIOR AGREEMENTS

28. All prior agreements for supply of Electricity by B.C.-Hydro to the Customer at the Point of Delivery are terminated as of the Commencement Date, subject to entitlements or obligations, then accrued or incurred, of both parties.

LAW

- 29. (a) This Agreement shall be construed in accordance with the laws of the Province of British Columbia.
- (b) B.C.Hydro and the Customer will promptly comply with all relevant laws and regulations and the relevant orders, rules and requirements of all authorities having jurisdiction.

IN WITNESS WHEREOF the duly authorized representative of each party has executed this Agreement. [If the Customer is a joint venture or partnership, then this Agreement shall be executed and sealed by all joint venturers or partners and all declarations and agreements of the Customer shall be deemed to be joint and several.]

BRITISH COLUMBIA HYDRO
AND POWER AUTHORITY

Per:

THE CORPORATE SEAL of the)
Customer, _____)
_____))
_____))
was hereunto affixed in the)
presence of:)
_____))
Authorized Signatory)
_____))
Authorized Signatory)

C/S

SCHEDULE 1821TRANSMISSION SERVICE (5000 kV.A and over)

Availability: For all purposes. Supply is at 60,000 volts or higher.

Applicable in: Rate Zone 1 excluding the Districts of Kingsgate-Yahk and Lardeau-Shutty Bench.

Rate: Demand Charge: \$4.097 per kV.A of Billing Demand per Billing Period

plus

EnergyCharge: All kW.h per Billing Period at 2.341c per kW.h.

Billing Demand: The Demand for billing purposes shall be:

1. 5,000 kV.A; or
2. the highest kV.A Demand in the Billing Period; or
3. 75% of the highest Billing Demand for the Customer's Plant in the immediately preceding period of November to February, both months included; or
- * 4. 60% of the highest Billing Demand in any of the immediately preceding 24 Billing Periods; or
5. 50% of the Contract Demand stated in the Electricity Supply Agreement for the Customer's Plant,

whichever is the highest value, provided that for new Customers the Billing Demand for the initial 2 Billing Periods shall be the average of the daily highest kV.A Demands for the Customer's Plant.

Monthly Minimum Charge: \$4.097 per kV.A of Billing Demand.

Taxes: The Rates and Monthly Minimum Charge contained herein are exclusive of the Goods and Services Tax and Social Services Tax.

* Note: Item 4 will be deleted if the Transmission Extension Policies for Permanent Service proposed by B.C. Hydro is approved by the B.C. Utilities Commission.

SCHEDULE 1880

TRANSMISSION SERVICE - EMERGENCY,
 MAINTENANCE AND SPECIAL SUPPLY (5000 kV.A and
over)

Availability: For Customers supplied with Electricity under Schedule 1821 subject to the Special Conditions below.

Applicable in: Rate Zone 1 excluding the Districts of Kingsgate-Yahk and Lardeau-Shutty Bench.

Rate: The Rate per Period of Use shall be the sum of:

Demand Charge: $H \times \$0.00617$ per kV.A of Schedule 1880 Billing Demand, where H = the number of hours in the Period of Use

plus

Energy Charge: First 250 kW.h per kV.A of Schedule 1880 Billing Demand @ 2.575c per kW.h. All additional kW.h @ 2.341c per kW.h.

Minimum Charge: The Minimum Charge in any Period of Use shall be \$0.444 per kV.A. The Minimum Charge shall not apply when the Period of Use is greater than 72 hours.

Period of Use: A period of consecutive hours during which Electricity is taken under this Schedule.

Schedule 1880 Billing Demand: The Schedule 1880 Billing Demand shall be the difference between the highest kV.A

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Demand during the Period of Use and the highest kV.A Demand during the 15 day period preceding the Period of Use.

Taxes:

The Rates and Minimum Charge contained herein are exclusive of the Goods and Services Tax and the Social Services Tax.

Special
Conditions:

1. B.C. Hydro agrees to provide Electricity under this Schedule to the extent that it has sufficient energy and capacity to do so.
2. B. C. Hydro may, without notice to the Customer, terminate the supply of Electricity under this Schedule if at any time during the Period of Use B. C. Hydro does not have sufficient energy or capacity. Electricity supplied under this Schedule shall be curtailed first when system load shedding is required.
3. This Schedule is only for the following purposes:
 - (a) to provide Electricity which the Customer would otherwise generate when all or part of the Customer's electrical generating plant is out of service;
 - (b) to provide Electricity so that the Customer may make an unanticipated short-term sale in the spot market for the Customer's product; or
 - (c) to provide Electricity so that the Customer may make up production after an abnormal operating condition in the Customer's plant, a Force Majeure event or a

discontinuance or
reduction in the supply of
Electricity by B.C.
Hydro.

4. Electricity taken under this Schedule shall not displace Electricity otherwise to be taken by this Customer under Schedule 1821.
5. In calculating the kW.h supplied under this Schedule, B.C. Hydro shall apply to the Schedule 1880 Billing Demand the Power Factor contained in the Electricity Supply Agreement and the Customer's actual load factor during the Billing Period preceding the Period of Use.
6. In addition to the charges specifically set out in this Schedule, the Customer shall pay for any additional facilities required to deliver Electricity under this Schedule provided that B.C. Hydro obtains the prior consent of the Customer for construction of the additional facilities.
7. The Customer shall not take Electricity under this Schedule without receiving prior approval from B.C. Hydro.
8. The Customer must give prior notice of the estimated amount of Electricity to be taken and the estimated Period of Use.

Note: This Schedule 1880 is designed to record B.C. Hydro's existing practices for the services described herein and is of an interim nature. All of terms and conditions contained herein shall be subject to reviews in future proceedings.

APPENDIX

Provisions Respecting Transmission Extensions and
Other Site Specific Matters

[This Appendix will contain site specific provisions from agreements in force prior to the Commencement Date of this new standard form Electricity Supply Agreement. This will include, but will not necessarily be limited to, rights and obligations related to existing Transmission Connections and Right-of-Way. In addition, this Appendix may also contain other site specific details related to the supply of electricity for which no provision was made in this new standard form Electricity Supply Agreement.]

5.2 Facilities Agreement

PROPOSED AGREEMENT FOR NEW CUSTOMERS
(Subject to approval by the B.C.U.C.)

THIS FACILITIES AGREEMENT, made as of
the ___ day of _____, 19__.
for _____.

BETWEEN:

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY,
having its head office at 970 Burrard Street,
Vancouver, British Columbia
(herein called "B.C. Hydro")

OF THE FIRST PART

AND:

having an office in British Columbia at

(herein called the "Customer")

OF THE SECOND PART

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WITNESSES THAT the parties declare and agree as follows:

TARIFF PROVISIONS

1. In addition to the provisions contained herein, the parties also have the rights and obligations described in the Electric Tariff provisions respecting "System Reinforcement and Transmission Extension Policies for Permanent Service" attached hereto as Appendix "1" to this Agreement. Further, the words which are defined in the aforesaid Electric Tariff provisions shall have the same meaning in this Agreement. B.C.Hydro will supply to the Customer a copy of all amendments or replacements to the aforesaid Electric Tariff provisions.

FACILITIES DESCRIPTION

2. The System Reinforcement, Basic Transmission Extension, Transmission Line and Customer Facilities required to be installed by each party to facilitate the supply of Electricity to the Customer's Plant are generally described in Appendix "2" to this Agreement.

FREQUENCY, VOLTAGE, CONTRACT DEMAND, POWER FACTOR, FAULT CONTRIBUTION

3. (a) The Electricity to be supplied by B.C. Hydro pursuant to an Electricity Supply Agreement and to be transmitted over the Facilities to the Point of Delivery, as shown in Appendix "2", shall be three phase alternating current, at a frequency of 60 Hz

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+/- 0.1 Hz. If and when the Customer is maintaining the Power Factor required pursuant to subclause 3(c) of this Agreement and the Customer's Plant is operating at or above 75 percent of Contract Demand then the service voltage shall be within +/- ___percent of ___ volts under B.C.Hydro system normal operating conditions.

- (b) The Contract Demand shall be ___ kV.A.
- (c) The Power Factor at the Point of Delivery, measured over an interval of 5 minutes, shall _____ .
- (d) The initial three-phase symmetrical fault contribution at ___kV from B.C. Hydro plant, when operating normally, at the Point of Delivery shall be not less than ___ MV.A. The ultimate three-phase symmetrical fault contribution from B.C. Hydro Facilities shall be not more than _____ MV.A.

COMPLETION DATE

- 4. The completion date for the work to be undertaken by B.C. Hydro, as described in Appendix 2, shall be _____, unless otherwise agreed or suspended by Force Majeure.

AMOUNTS PAYABLE

- 5. [This section will identify the amounts to be paid by the Customer to B.C.Hydro. The types of costs will be dependent on the options chosen by the Customer in

respect of estimates and the amounts of the costs will vary in accordance with site specific circumstances.]

TERM OF AGREEMENT

6. Unless terminated or extended in accordance with this Agreement, this Agreement shall be in force from the date this Agreement is made until all payments and repayments, including returns of security deposits, prescribed in this Agreement, or in the Tariff Provisions attached as Appendix "1", have been made and until the parties have reached an agreement to deal with any ongoing obligations and rights.

SUCCESSORS, ASSIGNS

7. This Agreement shall enure to the benefit of and be binding upon the parties and their respective successors and assigns provided, however, that this Agreement shall not be transferred or assigned by the Customer without prior written consent of B.C. Hydro, which consent shall not be unreasonably withheld.

NOTICE

8. (a) Unless otherwise provided for by this Agreement, a notice, consent, request, demand, statement or bill that either party may be required or may desire to give to the other party shall be in writing and shall be deemed to be given to and received by the addressee on the business day next following when

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it is delivered by hand, by courier, by telex, or by facsimile copier, and is deemed to be given when received if delivered by prepaid mail at the address that each party shall give notice of from time to time.

(b) The address that B.C.Hydro gives notice of is:

(c) The address that the Customer gives notice of is:

LAW

9. (a) This Agreement shall be construed in accordance with the laws of the Province of British Columbia.
- (b) B.C. Hydro and the Customer will promptly comply with all relevant laws and regulations and the relevant orders, rules and requirements of all awful authorities having jurisdiction.

IN WITNESS WHEREOF the duly authorized representative of each party has executed this Agreement. [If the Customer is a joint venture or partnership then this Agreement shall be executed and sealed by all joint venturers or partners and all declarations and agreements of the Customer

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shall be deemed to be joint and several].

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

Per:

The Corporate Seal of the Customer,

was affixed in the presence of:

Appendix "1"
to the
FACILITIES AGREEMENT
made as of the ____ day of _____, 19 ____.

ELECTRIC TARIFF PROVISIONS RESPECTING
SYSTEM REINFORCEMENT AND
TRANSMISSION EXTENSION POLICIES FOR PERMANENT SERVICE

1. Application and Overview

- (a) The supply of Electricity to a Customer will normally require a Basic Transmission Extension and a Transmission Line, collectively referred to as a Transmission Connection. There may also be a necessity for System Reinforcement.

- (b) Clauses 2 through 14 of this Section of the Electric Tariff set out the specific rights and obligations of the B.C. Hydro and the Customer. The following generally describes, solely for the purpose of providing an overview, some of the basic concepts in this Section of the Electric Tariff:
 - (i) System Reinforcement is the responsibility of B.C. Hydro, who shall undertake the required work and provide an offset for the expense;
 - (ii) the Basic Transmission Extension is the responsibility of B.C. Hydro, who shall undertake the required work at the Customer's expense;
 - (iii) a Customer requiring service at transmission

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voltage shall undertake the design, approval, land acquisition and construction of the Transmission Line to connect with B.C. Hydro's system, where it is reasonable, practical and economic to do so;

(iv) where it is not reasonable, practical or economic for the Customer to undertake the necessary design, approval, land acquisition or construction of the Transmission Line, B.C. Hydro shall undertake these activities at the Customer's expense;

(v) it is the responsibility of the Customer to establish that the provision of electrical service by B.C. Hydro to the Customer's Plant is in the public interest; and

(vi) a Customer who constructs its own Transmission Line may elect to retain ownership or to transfer it to B.C. Hydro.

2. Definitions

The following definitions apply only to this Section of the Electric Tariff:

Actual Cost: A cost that is reasonably incurred in acquiring Right-of-Way, doing work or providing service.

Agreed Maximum Cost: This term is defined in clause 4 of this Section of the Electric Tariff.

Basic Transmission Extension: Additions and alterations to existing B.C.Hydro Facilities, including switches and circuit breakers, necessary to extend up to 90 meters to the Transmission Line, as shown in Figures 1 and 2.

B.C. Hydro's Guide: The guide prepared by B.C. Hydro and titled "Guide & Requirements for Service at 69,000 to 287,000 volts", as amended or replaced from time to time.

Customer: A customer who takes or is proposing to take Electricity from B.C.Hydro pursuant to an Electricity Supply Agreement on the terms and conditions of Rate Schedule 1821, as amended or replaced from time to time.

Customer's Facilities: All Facilities owned by the Customer required for the supply of Electricity to the Customer's Plant, which may include the Transmission Line, as shown in Figures 1 and 2.

Customer's Plant: The manufacturing or other plant of the Customer, other than the Customer's Facilities.

Customer's Substation: The substation equipment constructed, owned, operated and maintained by the Customer, as shown in Figures 1 and 2.

Detailed Estimate: This term is defined in clause 4 of this Section of the Electric Tariff.

Electricity: Electrical power and electrical energy. Power is measured and expressed in kilowatts (kW) or kilovolt-amperes (kV.A) and energy is measured and

expressed in kilowatt-hours (kW.h).

Electricity Supply Agreement: The agreement to be entered into between B.C. Hydro and the Customer for the supply of Electricity to the Customer's Plant or the agreement existing between B.C. Hydro and the Customer, as an existing Customer, for the same purpose.

Facilities: Transmission and substation equipment.

Facilities Agreement: The agreement between B.C. Hydro and the Customer for the construction and installation of Facilities.

Force Majeure: This term is defined in clause 14 of this Section of the Electric Tariff.

Nominal Capacity: The kV.A capacity of a Transmission Connection, as determined by B.C. Hydro from nominal voltage and rated current.

Power Factor: The ratio, expressed as a percentage, of kW to kV.A when both are measured simultaneously over a specified time interval;

Preliminary Estimate: This term is defined in clause 4 of this Section of the Electric Tariff.

Right-of-Way: The real property, or an interest in such property, required for the purpose of locating, constructing, operating and maintaining the Facilities of B.C. Hydro or the Customer, as the situation requires.

System Reinforcement: Additions and alterations to existing B.C. Hydro Facilities, required to supply the Electricity to a Transmission Connection. Where an existing Transmission Connection supplies at least one other Customer, or other B.C. Hydro customers whose combined power demand exceeds five percent of the Nominal Capacity of the Transmission Connection, any additions and alterations shall be considered System Reinforcement. System Reinforcement shall not include any additions or alterations to generation plant and associated transmission, or transmission lines at 500 kV and over, unless the new or incremental loads exceed 150 MV.A.

Transmission Connection: The Basic Transmission Extension and the Transmission Line, considered as a whole, as shown in Figures 1 and 2.

Transmission Line: The transmission line that runs between the Basic Transmission Extension and the Customer's Substation as shown in Figures 1 and 2.

3. Approvals

- (a) The Customer shall, on all relevant applications, have the prime responsibility for demonstrating that the provision of electrical service by B.C. Hydro to the Customer's Plant is in the public interest.
- (b) The party responsible for the installation and construction of any Facilities shall use all reasonable efforts to obtain all required

approvals, permits, licences, easements, and Right-of-Way. The other party shall provide all reasonable assistance.

4. Estimates and Agreed Maximum Cost

- (a) On request, B.C. Hydro shall provide preliminary information, the cost portion of which shall be known as the "Preliminary Estimate", as to the method and cost of supply. This information shall normally be provided at no cost but a charge may result if more than two sites are to be reviewed. Where requested, B.C. Hydro shall also provide, normally at no cost, preliminary information as to the costs of undertaking the detailed studies referenced in subclause 4(c).
- (b) B.C. Hydro makes no representations as to the accuracy of the Preliminary Estimate and the Customer's reliance on this Preliminary Estimate shall not limit the Customer's responsibility for the payment of the Actual Costs incurred by B.C. Hydro.
- (c) B.C. Hydro shall also undertake and provide, upon request, detailed studies to determine the method, cost and timing of System Reinforcement, the Basic Transmission Extension, and the Transmission Line; which studies shall be at the Customer's cost, paid in advance. Further, based on such studies, B.C. Hydro shall provide an estimate, known as the "Detailed Estimate", within a specified accuracy,

as desired by the Customer.

- (d) If a Customer has paid for a Detailed Estimate, as described in subclause 4(c), then the "Agreed Maximum Cost" shall be the lessor of the Actual Costs and the Detailed Estimate.
- (e) If a Customer elects not to pay for an estimate as described in subclause 4(c), the Customer shall pay B.C. Hydro's Actual Costs and the "Agreed Maximum Cost" shall be the Actual Cost or the estimated Actual Cost where final costs are not available.

5. System Reinforcement

- (a) B.C. Hydro shall construct, own, operate and maintain all System Reinforcement.
- (b) Prior to B.C. Hydro undertaking the required System Reinforcement, the Customer shall:
 - (i) pay B.C. Hydro any amount by which the Detailed Estimate or, in its absence, the Preliminary Estimate of System Reinforcement exceeds the maximum B.C. Hydro offset determined pursuant to subclause 5(c); and
 - (ii) provide security, in the form specified in clause 13, to B.C. Hydro in an amount equal to the B.C. Hydro offset determined pursuant to subclause 5(c), until the Customer's Plant is in normal commercial operation.

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(c) For permanent loads, B.C. Hydro shall provide an offset towards the cost of System Reinforcement, in an amount equal to the lesser of:

(i) the Detailed Estimate or, in its absence, the Preliminary Estimate of System Reinforcement as determined pursuant to subclause 5(b); and

(ii) the B.C. Hydro maximum offset as calculated in the following manner:

$$I = \frac{(R-E)}{.135} + B + D$$

where:

I = B.C. Hydro's maximum offset towards the cost of System Reinforcement;

R = the incremental revenue as calculated by B.C. Hydro from the estimated incremental load during the first year of normal operations;

E = the estimated incremental operating and maintenance expense of supplying the incremental load during the first year of normal operations;

D = one-half the annual depreciation associated with the estimated total costs of System Reinforcement; and

B = other benefits to the B.C. Hydro system, as determined by B.C. Hydro.

- (d) Once the Customer's Plant is in normal operation:
- (i) B.C. Hydro shall re-evaluate its offset and any required Customer contribution, based on the the Agreed Maximum Cost, together with new forecasts of both the incremental revenues (R) and the benefits (B), whereupon B.C. Hydro shall return any excess security or the Customer shall provide any additional security or contribution, as necessary; and
- (ii) B.C. Hydro shall thereafter return all remaining security annually, in accordance with the following formula;

$$S_R = \frac{S_0}{8} \times \frac{R_A}{R_E}$$

where:

S_R = the amount of security released in any given year following the commencement of normal operation of the Customer's Plant;

S_0 = the amount of security provided after re-evaluation;

R_A = the actual revenue received during the year in question from the Customer and other Customers using the same System Reinforcement, for loads which are incremental to those loads projected at the time the security was taken; and

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R_E = the minimum annual revenue which is required to make the B.C. Hydro offset equal to the Actual Cost, to be calculated as follows:

$$R_E = .135 (I_A - B - D) + E$$

where I_A is equal to the B.C. Hydro offset after adjustments as determined pursuant to subclause 5(d)(i) and B, D and E have the meanings given in subclause 5(c)(ii).

- (e) Where a Customer has made a payment towards System Reinforcement, pursuant to subclause 5(b)(i) or 5(d)(i), and B.C. Hydro determines that a subsequent Customer will make use of the System Reinforcement during the first five years following commencement of service, B.C. Hydro shall recalculate the Customer's payment based on the combined loads and refund the appropriate amount to the first Customer. In this recalculation, the incremental revenue from the new Customer shall be used to increase the incremental revenue (" R_A ") in subclause 5(d).
- (f) If the Customer's project is abandoned or the Customer's Plant is closed with no reasonable prospects for re-opening in the foreseeable future or if any portion of the security remains in place twelve years after commencement of operations, then the remaining security deposit shall become the property of B.C. Hydro.

Note:

The Industrial Users Committee takes the position that B.C. Hydro should not be able to retain security deposits for System Reinforcement unless there are reasonable grounds to believe that the Customer's future revenues may not be sufficient to justify the B.C. Hydro offset, using the formulae in subclauses 5(c) and (d). B.C. Hydro's position is that this could have financial impacts and, accordingly, it has been agreed that each party reserves the right to deal with this in a future rate, or rate design, hearing.

6 Basic Transmission Extension

- (a) B.C. Hydro shall construct, own, operate and maintain the Basic Transmission Extension.
- (b) The Customer shall pay for the cost of the Basic Transmission Extension by:
 - (i) providing security to B.C. Hydro for the amount of the the Detailed Estimate or, in its absence, the Preliminary Estimate, determined pursuant to clause 4; and
 - (ii) paying the Actual Costs, as incurred by B.C. Hydro for the Basic Transmission Extension, up to a maximum amount equal to the Agreed Maximum Costs, determined pursuant to clause 4, in accordance with periodic billings, as set out in a Facilities Agreement.

7. Transmission Line

- (a) Where it is reasonable, practical and economic, the Customer shall construct the Transmission Line. The Customer is encouraged to build to B.C. Hydro standards.

- (b) A Customer has two options for operation of the Transmission Line it constructs on its own Right-of-Way for the supply of Electricity:
 - (i) the Customer may, prior to the Transmission Line being put into service, transfer ownership of the Transmission Line to B.C. Hydro, provided that the Customer advises B.C. Hydro of its intention to do so prior to, or at the time of, execution of the Facilities Agreement and provided that the Transmission Line is built to a standard acceptable to B.C. Hydro on suitable Right-of-Way, pursuant to subclause 9(d), that is also transferred to B.C. Hydro, and provided that appropriate financial arrangements have been made to compensate B.C. Hydro for unusually high operation, maintenance and related costs; or

 - (ii) the Customer may continue to own, operate and maintain its own Transmission Line ,in which case the Customer must check with B.C. Hydro and the authorities designated under the Electrical Safety Act R.S.B.C., 1979 c. 104,

to ascertain what equipment and devices are necessary at the Point of Delivery and the Customer may request B.C. Hydro to bid for the maintenance contract.

- (c) A Customer who constructs a Transmission Line on Right-of-Way owned by B.C. Hydro shall build to a standard acceptable to B.C. Hydro, make appropriate financial arrangements to compensate B.C. Hydro for unusually high operation, maintenance and related costs and transfer ownership of the Transmission line to B.C. Hydro prior to the Transmission Line being put into service.
- (d) Where the Customer has exercised its option pursuant to subclause 7(b)(i), or constructed a Transmission Line pursuant to subclause 7(c) or 7(e), the Customer shall provide to B.C. Hydro full particulars as to the cost of construction of the Facilities, including the cost of acquiring the Right-of-Way, within one year of the transfer of ownership.
- (e) Where it is not reasonable, practical or economic for the Customer to construct the Transmission Line, or becomes so prior to the line being put into service, B.C. Hydro shall make all reasonable efforts to construct, or complete construction, of the Transmission Line at the Customer's expense. In this case the Customer shall:
 - (i) provide security to B.C. Hydro for the amount of the the Detailed Estimate or, in its absence, the Preliminary Estimate, determined

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pursuant to clause 4;

- (ii) pay the Actual Costs, as incurred, of B.C. Hydro for the Transmission Line, up to a maximum amount equal to the Agreed Maximum Costs, as determined pursuant to clause 4, in accordance with periodic billings, as set out in a Facilities Agreement; and
- (iii) enter into appropriate financial arrangements to compensate B.C. Hydro for unusually high operation, maintenance and related costs.

- (f) Where B.C. Hydro has constructed, or completed construction, of the Transmission Line, it shall be owned, operated and maintained by B.C. Hydro.

8. Customer's Facilities

The Customer shall construct, own, operate and maintain the Customer's Facilities.

9. Right-of-Way

- (a) For System Reinforcement and the Basic Transmission Extension:
 - (i) B.C. Hydro will, at a cost to be included as part of the Actual Cost of the System Reinforcement, make all reasonable efforts to obtain the Right-of-Way for any System Reinforcement; and

- (ii) B.C. Hydro shall, at a cost to be included as part of the Actual Cost of the Basic Transmission Extension, make all reasonable efforts to obtain the Right-of-Way for the Basic Transmission Extension.
- (b) For the Transmission Line:
- (i) where, pursuant to clause 7, the Customer constructs, or intends to construct, the Transmission Line, it shall, at no cost to B.C. Hydro, acquire all necessary Right-of-Way for the Transmission Line and if the Customer is unable, by any other means, to obtain the required Right-of-Way, then the Customer shall transfer to B.C. Hydro, at no cost, such partial Right-of-Way as the Customer has been able to obtain and B.C. Hydro shall make all reasonable efforts to obtain the remaining Right-of-Way;
 - (ii) where, pursuant to clause 7, B.C. Hydro constructs the Transmission Line, B.C. Hydro shall obtain the required Right-of-Way for the Transmission Line; and
 - (iii) in either case, the Customer shall reimburse B.C. Hydro for any compensation paid by B.C. Hydro to third parties in obtaining the Right-of-Way and pay all of B.C. Hydro's other costs, including administrative costs, incurred in obtaining and utilizing the Right-of-Way.

- (c) Right-of-Way shall consist of common-law easements or statutory rights-of-way pursuant to Section 214 of the Land Title Act R.S.B.C. 1979, c. 218, as amended.
- (d) If the Customer has obtained its own Right-of-Way for the Transmission Line and has elected to transfer the Transmission Line to B.C. Hydro, pursuant to subclause 7(b)(i), the Customer shall ensure, at no cost to B.C. Hydro, that:
 - (i) the Right-of-Way is of sufficient duration for B.C. Hydro to have full and proper access; and
 - (ii) all other authorizations and rights are in place so that B.C. Hydro is able to own, alter, add to, operate and maintain the Transmission Line.

10. Subsequent Customers Connected to a Transmission Connection Owned by B.C. Hydro

This clause applies where B.C. Hydro owns, operates and maintains a Basic Transmission Extension or Transmission Connection.

- (a) B.C. Hydro may use excess capacity on the Basic Transmission Extension or Transmission Connection to supply Electricity to one or more subsequent Customers.

During the first seven years following completion of the Basic Transmission Extension or Transmission Connection, capacity shall not be considered to be

excess if the Customer, who paid for the Basic Transmission Extension or Transmission Connection, demonstrates that it will require the use of part or all of such capacity within three years.

(b) The sharing of the cost of a common Basic Transmission Extension or Transmission Connection shall be, subject to subclause 10(c), as follows:

(i) subsequent Customers shall contribute a share of the replacement cost, as estimated by B.C. Hydro, of common portions of the Basic Transmission Extension or Transmission Connection in the proportion of their Contract Demands to the total of the Contract Demands;

(ii) the contributions from subsequent Customers shall be paid to B.C. Hydro;

(iii) the original Customer or Customers shall be compensated as follows:

- the compensation in respect of Facilities shall be based on the depreciated value of those Facilities, with the original cost being depreciated at 3% per year; and
- the compensation in respect of Right-of-Way shall be based on:

- . the then current market value for Right-of-Way on the Customer's own property; and

. the original cost for all other Right-of-Way; and

- (iv) B.C. Hydro shall retain the difference between the replacement cost and the depreciated cost of Facilities.
- (c) A payment made by B.C. Hydro to prior Customers shall be proportional to their respective Contract Demands.
- (d) No payment shall be made to a Customer when B.C. Hydro has added load for any purpose in an amount not exceeding in aggregate 5% of the Nominal Capacity of the Basic Transmission Extension or Transmission Connection.
- (e) No payment shall be made to a Customer if the Customer has reduced its take of Electricity below 30% of its Contract Demand for thirty-six consecutive months or more, unless the operating, maintenance and taxes associated with the Basic Transmission Extension or Transmission Connection are paid by the Customer during the period of reduced take. These costs are an addition to the bill for Electricity consumption.
- (f) When the Basic Transmission Extension or Transmission Connection is subsequently:
 - (i) used to provide permanent service to significant other customer load; or

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- (ii) is extended to provide a significant interconnection of B.C. Hydro Facilities; or
- (iii) is extended to attach significant B.C. Hydro generation; or
- (iv) used in a situation where, if the Basic Transmission Extension or Transmission Connection did not exist, B.C. Hydro would have constructed and paid for similar Facilities; or
- (v) is otherwise used for purposes which could be reasonably be considered to be providing a significant benefit, in relation to the costs of the Transmission Connection, to the B.C. Hydro system; then

B.C. Hydro shall pay the appropriate Customers an amount equal to the original cost of the Basic Transmission Extension and Transmission Connection less depreciation and an amount for the Right-of-Way as described in subclause 10(b)(iii).

11. Access to Customer's Facilities and Customer's Plant

- (a) To the extent that it may be necessary, the Customer shall grant to B.C. Hydro, its servants or agents, for the duration of the Facilities Agreement, and for a reasonable time thereafter, the free and uninterrupted right to access the Customer's Facilities and to enter onto the Customer's Plant for any purpose related to the

Facilities Agreement.

- (b) The rights granted to B.C. Hydro shall be exercised subject to prior notification and to any reasonable requirement of the Customer necessary for the safety or security of the Customer's Plant and the Customer's employees and for continuity of the Customer's operations.

12. Billing, Payment

- (a) B.C. Hydro shall provide bills monthly to the Customer for any amount as it becomes owing to B.C. Hydro under the Facilities Agreement but failure to provide a bill, or a correct bill, shall not release the Customer from liability for payment of any amount.
- (b) Each bill shall become due when delivered to the Customer and overdue if it is unpaid, in whole or in part, by the Customer 15 days from the day the bill is due.
- (c) The Customer shall, by electronic funds transfer or other method as agreed to in advance by B.C. Hydro, pay to B.C. Hydro's general bank account the amount shown on each bill, without setoff or withholding, at par in Canadian funds, before such bill becomes overdue.
- (d) Any unpaid amount of any overdue bill shall be subject to interest at the rate of interest which is equal to the annual rate of interest declared

from time to time by the lead chartered bank in Canada used by B.C. Hydro as the rate of interest charged by such bank to its most creditworthy commercial borrowers for loans in Canadian dollars payable on demand and commonly referred to as its "prime rate", plus:

- (i) 2 percent from the date when the bill is due for the first 30 days that the payment remains unpaid and 5 percent thereafter until the same is paid where the Customer has not, during the immediately preceding 6 months failed to make any payment when due; or
 - (ii) 5 percent from the date when the bill is due until the payment is made where the Customer has, during the immediately preceding 6 months, failed to make any payment when due.
- (e) Ten days after giving the Customer notice that a bill is overdue, B.C. Hydro, in lieu of or in addition to any other remedy provided by the Facilities Agreement, may refuse to connect the Basic Transmission Extension to the Customer's Plant or may disconnect the same until the bill is paid in full. No such action by B.C. Hydro shall relieve the Customer from any provision of the Facilities Agreement, including the payment of any amount payable, nor shall such action be deemed to be a termination of the Facilities Agreement and the validity or duration of the Facilities Agreement shall be otherwise unaffected.
- (f) B.C. Hydro may appropriate an amount equal to any

overdue amount of any bill from a security for costs established by the Customer with B.C. Hydro pursuant to clauses 5, 6 or 7 if and when any bill or part thereof becomes overdue and thereupon the Customer's right to the portion of the security so appropriated shall terminate.

3. Security for Costs

- (a) The security for costs pursuant to clauses 5,6 or 7 shall be in a form which has the prior approval of B.C. Hydro, which may include:
 - (i) irrevocable letter of credit;
 - (ii) contract bond;
 - (iii) guarantee by a corporation other than the Customer;
 - (iv) bank term deposit, to be deposited in trust for B.C. Hydro;
 - (v) negotiable bearer bond, that is government guaranteed at face value; or
 - (vi) prepayment on account.
- (b) Unless otherwise provided, security for costs shall be returned to the Customer, or released to the guarantor, to the extent payment is received for such costs, at the time each payment is received.
- (c) B.C. Hydro shall not pay interest on any security for costs held by it. The Customer may arrange with its bank to pay any interest earned on a bank term deposit, deposited in trust for B.C. Hydro, directly to the Customer's account.

14. Force Majeure

- (a) The term Force Majeure includes but is not limited to Strikes, legal lockouts, other labour disturbances (including exercises of non-affiliation rights but excluding illegal lockouts), fire, flood, accidents, tempest or acts

of God, sabotage or acts of the Queen's enemies, acts or failure to act by lawful authority or any other cause whatsoever beyond the reasonable control of the parties, provided that in no event shall lack of finances, loss of markets or inability to perform due to the financial condition of either party constitute Force Majeure.

- (b) If either party is or was wholly or partly unable, because of a Force Majeure, to perform an obligation and claims that a Force Majeure is occurring or has occurred and reasonably establishes that fact then the performance of the obligation shall be deemed to be suspended, provided always that:
 - (i) the suspension shall be of no greater scope and no longer duration than the Force Majeure, and
 - (ii) the non-performing party shall use all reasonable efforts to counter the Force Majeure or to otherwise remedy its inability to perform the obligation.

Appendix "2"
to the
FACILITIES AGREEMENT

made as of the ____ day of _____, 19 ____.

PLANT DESCRIPTION

I FACILITIES TO BE CONSTRUCTED OR INSTALLED BY B.C. HYDRO

II FACILITIES TO BE CONSTRUCTED OR INSTALLED BY CUSTOMER

IN THE MATTER OF
the Utilities Commission Act
S.B.C. 1980, c. 60, as amended

and

IN THE MATTER OF
an Application by
British Columbia Hydro and Power Authority
Standard Form Electricity Supply Agreement
Standard Form Facilities Agreement

DECISION

January 21, 1991

BEFORE:

J.G. McIntyre, Chairman
W.M. Swanson, Q.C., Commissioner
K.L. Hall, Commissioner

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