Decision **2002-087**

ESBI Alberta Ltd.

2002 Tariff Refiling

October 8, 2002

Alberta Energy and Utilities Board

ALBERTA ENERGY AND UTILITIES BOARD
Decision 2002-0XX: ESBI Alberta Ltd.
2002 Tariff Refiling
Application Nos. 1256321 & 1256327

Published by
Alberta Energy and Utilities Board
640 – 5 Avenue SW
Calgary, Alberta
T2P 3G4

Telephone: (403) 297-8311
Fax: (403) 297-7040

Web site: <www.eub.gov.ab.ca>

Contents

ALBERTA ENERGY AND UTILITIES BOARD
Calgary, Alberta

	Decision 2002-087
ESBI ALBERTA LTD.	**Applications Nos. 1256321 & 1256327**
2002 TARIFF REFLINIG	**Files Nos. 1807-1 & 1807-2**

1 INTRODUCTION AND BACKGROUND

ESBI Alberta Ltd. (EAL), as Transmission Administrator (TA), applied to the Board for approval of both Phase I and Phase II of its 2002 tariff (2002 Tariff) for the period January 1, 2002, through December 31, 2002 (Tariff Application).[1] EAL was then able to reach a comprehensive negotiated settlement of its Tariff Application (Settlement) with a number of interested parties, which became the subject of a separate, companion application to the Tariff Application (Settlement Application).[2]

On July 16, 2002, the Board issued Decision 2002-064 approving the Settlement. In that Decision, the Board directed EAL to refile its 2002 Tariff, in accordance with the approved Settlement, within 21 days of the date of the Decision. On August 7, 2002 the Board received the requested refiling from EAL (Tariff Refiling), containing Terms & Conditions of Service, Rate Schedules and a schedule supporting the rate calculations. The Terms & Conditions of Service are set out in Appendix A to this Decision. The Rate Schedules are set out in Appendix B.

In separate proceedings, the Board considered Duplication Avoidance Tariff (DAT) applications by EAL in relation to the Shell Scotford Industrial Site (Shell Scotford DAT)[3] and the Imperial Oil Cold Lake Industrial Site (Imperial Cold Lake DAT).[4] The Board approved the Shell Scotford DAT, which was a refiled DAT, in Decision 2002-060[5] and directed EAL to file the DAT in final form in due course.

The Board approved the Imperial Cold Lake DAT in Decision 2002-019 and directed EAL to refile the proposed DAT in accordance with that Decision on or before February 28, 2002. EAL provided a number of comments by way of a letter dated February 28, 2002, which it submitted in fulfillment of the Board's direction to refile the Imperial Cold Lake DAT. The Board received no comments from parties in relation to EAL's Imperial Cold Lake DAT refiling.

The final Shell Scotford and Imperial Cold Lake DATs were included by EAL in the Tariff Refiling of August 7, 2002. The Shell Scotford DAT is set out in Rate Rider A3[6] and the Imperial Cold Lake DAT is set out in Rate Rider A4.[7]

---

1 Application No. 1256321
2 Application No. 1256327
3 Application No. 1249770
4 Application No. 2001187
5 Decision 2002-060, ESBI Alberta Ltd., Shell Scotford Duplication Avoidance Tariff Refiling (July 2, 2002)
6 2002 Tariff, Rate Schedules, Appendix A, Section 9.6
7 2002 Tariff, Rate Schedules, Appendix A, Section 9.11

The Board received no comments from any party in relation to the Tariff Refiling. Accordingly, for purposes of this Decision, the Board considers the record to have closed on August 7, 2002.

2 VIEWS OF THE BOARD

The Board has reviewed EAL's Tariff Refiling and considers it to be in compliance with the directions contained in Decisions 2002-019, 2002-060 and 2002-064. In particular the Board wishes to acknowledge that it has reviewed the refilings with respect to the Shell Scotford DAT and Imperial Cold Lake DAT and finds them in compliance with the Board's Decisions with respect to the DATs.

The Board notes that all interested parties were provided with a copy of the Tariff Refiling, including the aforementioned DATs, and the Board has received no comments from any party in relation to the Tariff Refiling.

The Board also notes that the Tariff Refiling requested an effective date of September 1, 2002. However, to allow the affected parties sufficient time to make necessary adjustments to their billing systems the Board has amended this date to November 1, 2002. The Board considers that any revenue surplus or deficiency resulting from this modest change can be accounted for by EAL through the existing deferral accounts.

Therefore, the Board approves EAL's 2002 Tariff as refiled in the Tariff Refiling, as set out in Appendices A and B to this Decision.

3 ORDER

For the reasons set out in this Decision, the Board hereby approves EAL's 2002 Tariff as set out in Appendix A (Terms and Conditions of Service) and Appendix B (Rate Schedules) to this Decision, effective November 1, 2002.

Dated in Calgary, Alberta on October 8, 2002.

ALBERTA ENERGY AND UTILITIES BOARD

<original signed by>

R. G. Lock, P.Eng.
Presiding Member

<original signed by>

B. T. McManus,Q.C.
Member

<original signed by>

T. McGee
Member

APPENDIX A – TERMS AND CONDITIONS OF SERVICE

EFFECTIVE NOVEMBER 1, 2002

"Terms and
Conditions of Service

(Consists of 72 pages)

(Click here to return to the Table of Contents)

APPENDIX B – RATE SCHEDULES

EFFECTIVE NOVEMBER 1, 2002

"Rate
Schedules.doc"

(Consists of 34 pages)

(Click here to return to the Table of Contents)

TRANSMISSION ADMINISTRATOR of ALBERTA

2002 TARIFF

TERMS AND CONDITIONS OF SERVICE

TABLE OF CONTENTS

ARTICLE 1
DEFINITIONS AND INTERPRETATION

1.1 Unless otherwise expressly provided, any definition of a word or expression in the Act shall apply to the use of such word or expression in this Tariff. Notwithstanding the foregoing, the following terms shall have the following meanings in this Tariff:

"Act" means the *Electric Utilities Act*, R.S.A. 2000, c. E-5, as amended.

"AIES" means Alberta's "Interconnected Electric System" as that term is defined in the Act.

"AEUB" means the Alberta Energy and Utilities Board.

"Affiliate" has the meaning ascribed to it in the *Business Corporations Act* (Alberta), S.A. 1981, c. B-15, as amended.

"Apparent Power" means the product of the volts and amperes, comprising both real and reactive power, usually expressed in kilovoltamperes ("kVA") or megavoltamperes ("MVA").

"Application Fee" means the non-refundable interconnection application fee a Customer pays to the Transmission Administrator when the Customer submits a request for interconnection to the AIES. Application Fees are set out in Article 1.

"Area Control Error" means the instantaneous difference between actual and scheduled interchange, taking into account the effects of frequency bias (and time error or unilateral inadvertent energy, if automatic correction for either is part of the AGC);

"Automatic Generation Control" or **"AGC"** means equipment that automatically adjusts a Control Area's generation to maintain its frequency or interchange schedule plus or minus frequency bias.

"Automatic Voltage Regulator" or **"AVR"** means automatic control equipment that changes the Generating Unit excitation level to maintain voltage levels.

"Billing Capacity" shall have the meaning given to that term in Rate Schedule DTS.

"Billing Period" means a period of time starting on the first day of each calendar month at 00:00 hrs. and ending on the last day of the same calendar month at 24:00 hrs., during which a Customer is supplied with System Access Service by the Transmission Administrator.

"Business Day" means a day other than a Saturday, a Sunday, a Statutory Holiday, or a Monday when a Statutory Holiday occurs on a Saturday or Sunday and the following Monday is a day during which financial banking privileges are suspended.

"Commercial Operation" means the date upon which a load or Generating Unit begins to operate on the transmission system in a manner which is acceptable to the Transmission Administrator and which is expected to be normal for it to so operate, after energization and Commissioning.

"Commissioning" means those limited activities (as approved in advance by the Transmission Administrator and subject to written agreement) conducted after interconnection which are required to ensure that a facility can satisfactorily enter Commercial Operation and that a facility meets the Transmission Administrator's requirements. Such written agreement will not extend beyond a three month period or a mutually agreed to commissioning period.

"Confidential Information" means information provided to the Transmission Administrator which has been specifically identified as being confidential in nature by the provider of such information and information provided pursuant to Article 11 of these T&C's.

"Confirmation Notice" is a notification from the Transmission Administrator to a customer that the Customer's system access service application is complete and will be processed.

"Constrained On" means, in respect of a Generating Unit, being dispatched on load while Out of Merit, as a result of a Dispatch Instruction by the System Controller.

"Construction Commitment Agreement" means an agreement to be entered into between the Transmission Administrator and a Customer prior to the Transmission Administrator arranging for new facilities required to accommodate System Access Service or an increase thereto, as referenced in Paragraph 8.1 hereof.

"Contract Capacity" means the peak demand or supply capability (expressed in MW), as set out in the System Access Service Agreement; it may change only in accordance with the provisions of the terms hereof.

"Control Area" means a geographic area comprised of an electric system or systems, bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other control areas, and contributing to frequency regulation of the interconnection, such as the AIES.

"COS" or **"Customer-Owned Substation Credit"** means the credit payable to certain Demand Customers as set forth in Rate Schedule Customer-Owned Substation Credit.

"Customer" is an Eligible Person who takes, or applies to take, System Access Service from the Transmission Administrator and satisfies the pre-contract conditions provided in Paragraph 3.1 below.

"Customer's Facilities" means all facilities interconnecting with the AIES on the Customer's side of the POD or POS.

"Customer Contribution" means the amount required to be paid by Customers taking service under Rate Schedule DTS or Rate Schedule STS pursuant to Article 9 hereof.

"Deficiency Notice" is a notification from the Transmission Administrator Customer that the Customer's system access service application is deficient and the application will not be processed.

"Demand Customers" are load customers and generation customers, the latter for the purposes of obtaining their back up supply.

"Direct Loss or Damage does not include loss of profit, loss of revenue, loss of production, loss of earnings, loss of contract or any other indirect, special or consequential loss or damage whatsoever arising out of or in any way connected with a Transmission Administrator Person Act.

"Dispatch Instruction" means in respect of any Generating Unit, all dispatch instructions issued by the System Controller from time to time, designating such unit to provide System Support Services, by changing the output or manner of operation of a unit, or by another method or procedure, and giving any necessary details as to the service to be provided.

"Dispute" means any dispute, claim or difference which arises in respect of the Tariff between the Transmission Administrator and the Customer.

"Distributor" means a party providing "distribution access service" as defined in the Act.

"DOS" or **"Demand Opportunity Service"** means service under any one of Rate Schedules Demand Opportunity Service (DOS 7 Minutes), Demand Opportunity Service (DOS 1 Hour), Demand Opportunity Service (DOS Term).

"DTS" or **"Demand Transmission Service"** means service under Rate Schedule Demand Transmission Service.

"E&GI Act" means the *Electricity and Gas Inspection Act* (Canada) and regulations made thereunder, as amended from time to time, or such replacement legislation as may be enacted.

"Eligible Person" means any of the following: the owner of a Generating Unit; the owner of an electric distribution system; an importer or exporter; the owner of an industrial system; or the purchaser of a PPA in accordance with Part 4.1 of the Act.

"Emergency" means, as declared by the System Controller, either: any abnormal system condition which requires immediate manual or automatic action to prevent abnormal system frequency deviation, abnormal voltage levels, equipment damage, or tripping of system elements which might result in cascading effects; or a state in which the AIES lacks sufficient System Support Services.

"Energy Transfer" shall mean the quantity of energy transfer attributable to a transaction for service under Rate Schedule Export Service or Rate Schedule Import Service, based on the capacity at a Point of Interconnection and allocated to a Customer.

"Export Service" means service under Rate Schedule Export Service.

"Force Majeure" means: acts of God; strikes; lockouts or other industrial disturbances; vandalism; wars; riots; epidemics; landslides; lightning; earthquakes; explosions; fires; storms; intervention of federal, provincial, or local government (or from any of their agencies or boards); the order or direction of any court; inability to obtain, interruption, suspension, curtailment or other diminution of, supply of materials, utilities, or services from any supplier (including, without limitation, TFOs, System Support Service Providers or the System Controller) and any other causes, whether of the kind herein enumerated or otherwise, not within the control of the Transmission Administrator and which by the exercise of due diligence the Transmission Administrator is unable to prevent or overcome.

"Generating Unit" shall have the meaning as ascribed to in the Act.

"Governor" or **"Governor System"** means automatic control equipment with speed droop characteristics to control Generating Unit speed and/or electric power output.

"Hourly Application Fee" means the actual Transmission Administrator's costs associated with processing a Customer's request for interconnection to the AIES plus 30 per cent.

"Import Service" means service under Rate Schedule Import Service.

“Interconnection Requirements” means the requirements contained in the *Technical Requirements for Connecting to the Alberta Interconnected Transmission Grid* in either *Part 1: Technical Requirements for Connecting Loads or Part 2: Technical Requirements for Connecting Generators to the Alberta Interconnected Electric System*, published on the Transmission Administrator’s website, as may be amended from time to time in accordance with the provisions of Article 5 below.

“Looped” refers to transmission facilities that increase the number of electrical paths between any two POCs other than the POC that serves the Customer for whom the facilities are being or have been constructed.

“Losses” means the energy that is lost through the process of transmitting electric energy.

“MCR” means Maximum Continuous Rating. MCR is the maximum net power output that can be sustained by a generator over a long period.

“Metered Demand” means the rate at which electric energy is delivered to a POD, or from a POS, expressed in kW or MW, averaged over a 15-minute, 1-minute or other interval as deemed necessary by the Transmission Administrator.

“Metered Energy” means the quantity of energy reflected by the relevant Metering Equipment as having been transferred in a particular period of time.

“Metering Equipment” means any current transformers, potential transformers, interconnecting wiring, meters, remote metering communication facilities and records used by the owner of the Metering Equipment in connection with these Terms and Conditions to measure Metered Demand.

“Non-dispensated Metering Equipment” means Metering Equipment installed after May 31, 1998 which is not the subject of a waiver or dispensation by Industry Canada of requirements under the E&GI Act.

“Non-Recallable Customer” means a Customer taking System Access Service pursuant to Rate Schedule DTS or Rate Schedule STS.

“Off-Peak” means those periods of time which are not On-Peak.

“On-Peak” means the period of time from 8:00 hrs. to 21:00 hrs., inclusive, during any Business Day.

"Operating Reserves" means the capability above system demand available to the AIES within 10 minutes following a supply contingency, required to provide for system regulation and local area protection and to correct for or stabilize the system in the event of contingencies, load forecasting errors and forced outages to Generating Units. Operating Reserve includes any or all of the following in any combination at a given time:

(a) **"Regulating Reserve",** being an amount of Spinning Reserve responsive to AGC, which is sufficient to provide normal regulating margin**;**

(b) **"Spinning Reserve"**, being the amount of reserve synchronized to the AIES, responding automatically through governor action to fluctuations in AIES frequency and capable of assuming load instantaneously;

(c) **"Non-spinning Reserve"**, being the amount of generation capable of being connected to the AIES and loaded within 10 minutes, or demand that can be reduced within 10 minutes;

(d) **"Contingency Reserve"**, being a combination of Spinning and Non-spinning Reserve and of sufficient quantity to reduce Area Control Error to zero within 10 minutes following the loss of supply capacity. At least 50% of the Contingency Reserve shall be Spinning Reserve, which will automatically respond to frequency deviation.

"Opportunity Capacity" means the incremental amount of transmission capacity which is available under a System Access Service Agreement for Demand Opportunity Service to provide capacity in addition to Contract Capacity for DTS.

"Opportunity Service" means System Access Service offered to any Customer who can establish to the Transmission Administrator's satisfaction that it would not take System Access Service pursuant to Rate Schedule DTS and with respect to which, therefore, the service requirement presents the opportunity for incremental revenue with which the Transmission Administrator can offset transmission costs.

"Opportunity Service Customers" means those Customers which meet the criteria for Opportunity Service, as defined.

"Physical Capacity" means the maximum amount of electric power which a transmission facility, as rated by a TFO, is able to transmit.

"POC" or **"Point of Connection"** means a point at which electric energy is transferred between the Customer's facility and the AIES. A Point of Connection may be a Point of Supply (POS), a Point of Delivery (POD), or both.

"POD" or **"Point of Delivery"** means the point at which electric energy is transferred from the AIES to a Customer's facilities.

"Point of Interconnection" means the point at which electrical energy is transferred from the AIES to a neighboring jurisdiction and where the electric energy so transferred is measured;

"Pool Price" shall have the meaning ascribed to that term in the Act, and when used in the context of a particular hour, shall mean the pool price for that hour;

"POS" or **"Point of Supply"** means the point which electric energy is transferred from a Customer's facilities to the AIES.

"Power Factor" means the ratio of Real Power to Apparent Power.

"PPA" or "**Power Purchase Arrangement**" means those instruments setting forth the rights and obligations of the parties in relation to operation of Regulated Generating Units and entitlements to electricity and System Support Services and approved by the AEUB under Section 45.91 of the Act.

"PPA Effective Date" means January 1, 2001 or such other date as the Power Purchase Arrangements become effective.

"PSS" means power system stabilizer.

"Radial" facilities are those transmission facilities that are not Looped.

"Ratchet Level" shall have the meaning ascribed thereto in Rate Schedule DTS.

"Rate Schedules" means the schedules attached to and forming part of the Tariff, which set out the respective rates to be charged, and credits to be attributed, for each type of System Access Service.

"Rated Capacity" means the maximum amount of electric power which a transmission facility is rated by the manufacturer to be able to transmit.

"Reactive Power" means the portion of electricity that establishes and sustains the electric and magnetic fields of alternating current equipment, usually expressed in kilovars ("kVAr") or megavars ("MVAr").

"Real Power" means the rate of producing, transferring, or using electrical energy, expressed in kilowatts ("kW") or megawatts ("MW").

"Regulated Generating Unit" shall have the meaning ascribed thereto in the Act;

"Representatives" means the directors, officers, employees, consultants and agents of the TA.

"RMS" means the Reliability Management System (and all mandatory operating criteria required thereby) adopted and enforced by the WSCC.

"Statutory Holiday" means New Years Day, Family Day, Good Friday, Victoria Day, Canada Day, Heritage Day, Labour Day, Thanksgiving Day, Remembrance Day, Christmas Day and Boxing Day.

"STS" or **"Supply Transmission Service"** means service under Rate Schedule Supply Transmission Service.

"STS Capacity" means the Contract Capacity as set out in the System Access Service Agreement for Supply Transmission Service.

"System Access Service" or **"service"** has the meaning ascribed to the term "system access service" in the Act;

"System Access Service Agreement" means that contract, entered into between the Transmission Administrator and a Customer, in one of the forms attached hereto as Appendix "B", which establishes the specific terms pursuant to which each individual Customer obtains System Access Service.

"System Controller" or **"SC"** shall have the meaning ascribed to that term in the Act.

"System Disturbance" means an unplanned event, which produces an abnormal AIES condition such as high or low frequency, abnormal voltage or oscillations in the AIES.

"System Security" means the ability of the AIES to withstand events such as electric short circuits, unanticipated loss of AIES components and switching operations without experiencing cascading loss of AIES components or uncontrolled loss of load.

"System Support Services" shall have the meaning ascribed to that term in the Act.

"TA" means the Transmission Administrator.

"Tariff" means these Terms and Conditions and Appendices attached hereto and the Rate Schedules as approved by the AEUB.

"TFO" means Transmission Facilities Owner.

"Transmission Administrator Operating Policies" or **"TAOPs"** means the standards and practices established by the Transmission Administrator to guide operation of the transmission system, as modified by the Transmission Administrator from time to time.

"Transmission Must-Run" means Constrained On dispatch of a Generating Unit to a specific level in accordance with a Dispatch Instruction to maintain System Security.

"UFS" or **"Under-frequency Load Shedding Credit"** means the under-frequency load shedding provisions as set forth in Rate Schedule Demand Under-Frequency Load Shedding and the credits therefor.

"Western Interconnection" means the area comprising those states and provinces, or portions thereof, in Western Canada, Northern Mexico and the Western United States in which members of the WSCC operate synchronously connected transmission systems.

"WSCC" means the Western Systems Coordinating Council and any successor organization.

ARTICLE 2
APPLICATION OF TARIFF

2.1 This Tariff sets forth the basic terms and conditions of service pursuant to which the Transmission Administrator will provide System Access Service to its Customers. This Tariff has been approved by the AEUB, defines service to be delivered by the Transmission Administrator and binds all of the Transmission Administrator's Customers. This Tariff defines the basic rights of the Transmission Administrator and all its Customers with respect to all services provided by the Transmission Administrator. By accepting service from the Transmission Administrator, a Customer is deemed to have accepted the terms and conditions and Rate Schedules contained in this Tariff. This Tariff becomes effective on the later of January 1, 2002 or the first day of the month after the AEUB approves it.

2.2 This Tariff shall continue in effect until replaced or amended pursuant to Section 54 of the Act.

ARTICLE 3
USE OF TRANSMISSION SYSTEM

3.1 The Transmission Administrator agrees to provide and make available System Access Service to all Customers who:

(a) satisfy the pre-contract conditions set out in Articles 5, 6 (and the definition of Opportunity Service Customers), 7, 10, 11, 12, and 21 and the applicable Rate Schedule(s);

(b) have executed a System Access Service Agreement; and

(c) continuously abide by these terms and conditions.

3.2 The Transmission Administrator reserves the right to withhold, limit or discontinue System Access Service under the following provisions:

(a) Article 4, System Support Services

(b) Article 5, Interconnection Requirements

(c) Article 10, Credit, Statement of Account and Payment Terms;

(d) Article 11, Provision of Information By Customers;

(e) Article 12, Metering;

(f) Article 13, Service Interruptions and Force Majeure;

(g) Article 15, Increases, Reductions or Termination of Contract Capacity; and

(h) the Rate Schedules, where appropriate.

In the event of a written request from a Customer, the Transmission Administrator shall provide a written explanation for its withholding System Access Service.

3.3 All Customers shall comply with the Interconnection Requirements. Failure to comply with Interconnection Requirements shall provide the Transmission Administrator with the right, at its sole discretion, to withhold or discontinue System Access Service.

3.4 The Transmission Administrator provides System Access Service to Customers up to and including the POD or POS. All facilities interconnecting with the AIES on the Customer's side of the POD or POS ("Customer Facilities") are the responsibility of the Customer. This Tariff applies only to System Access Service supplied through facilities up to or from, and including, the POD or POS. The Customer must supply all Customer Facilities and the Transmission Administrator has no responsibility in respect of service provided over Customer Facilities.

3.5 No Customer or any other person may rearrange, disconnect, remove, interconnect with, or otherwise interfere with any transmission facility without the Transmission Administrator's prior written consent.

ARTICLE 4
SYSTEM SUPPORT SERVICES

4.1 From and after the effective date of the Tariff, certain Customers may be eligible and required to provide under-frequency load shedding. The provisions with respect to those requirements, and the credits therefor, are set out in Rate Schedule Under-Frequency Load Shedding (“UFS”).

4.2 Failure by any Customer to whom UFS applies, to comply with the requirements thereof shall provide the Transmission Administrator with the right, at its sole discretion, to withhold, limit or discontinue System Access Service to such Customer. Nothing in this paragraph shall, however, affect or derogate from the right of the WSCC to levy penalties or the obligation of the Customer, if any, to pay such penalties as a result of failure to provide System Support Services to the Transmission Administrator as contemplated herein.

4.3 During certain system conditions, and for the purposes of maintaining System Security, as may be identified by the Transmission Administrator or the System Controller in real-time, the System Controller may require a Customer, in particular a generator, to operate its generator for “Transmission Must-Run” purposes. This requirement is directed to those Customers that do not have a contract with the Transmission Administrator to provide “Transmission Must-Run” services. The Transmission Administrator will compensate the generator as follows:

Payment = (Customer Offer Price – Pool Price) x MW dispatch, for each hour that the service was requested, where:

> **MW dispatch** = dispatch in MW as requested by the System Controller or Transmission Administrator.
>
> **Customer Offer Price** = the current valid offer into the Power Pool spanning the hours requiring the Transmission Must-Run or, if no current valid offer exists, the average of the offers spanning the most recent complete daily Off-Peak or On-Peak period, as the case may be, that have been made to and accepted by the Power Pool as valid offers. Averages will be derived for both On-Peak and Off-Peak hours and applied to the calculation of Payment for those periods of time that the “Transmission Must-Run” service was used.

ARTICLE 5
INTERCONNECTION REQUIREMENTS

5.1 Any Customer proposing to take, or is taking, System Access Service through a POD or POS must comply with the Interconnection Requirements.

5.2 Any Customer whose facilities include a synchronous Generating Unit which is operated in parallel to the electric system, whether connected at a transmission voltage or a distribution voltage, must have a PSS in service when the Generating Unit is operating and an AVR that is operated in a voltage control mode for all hours in which the Generating Unit is operating. The Customer shall not operate the Generating Unit unless the PSS and AVR are operating as required. The Customer shall report to the Transmission Administrator on a monthly basis, no later than the 5th Business Day of the month following the month to which the report relates, the PSS and AVR in-service periods for the preceding month. In the event that the Transmission Administrator becomes aware of a failure to comply with this requirement, the Transmission Administrator shall report the non-compliance to the WSCC and any penalties assessed by the WSCC as the result of the noncompliance shall be borne by the relevant Customer. Article 5.2 shall not apply to synchronous Generating Units 10 MVA and smaller that are connected at the distribution voltage until such time that the aggregate MVA output from such 10 MVA and smaller synchronous Generating Units connected at a distribution voltage in the Alberta Control Area exceeds 200 MVA.

5.3 Failure to comply with the Interconnection Requirements shall result in the Transmission Administrator withholding, suspending or terminating System Access Service, however the Transmission Administrator may, in its sole discretion, waive compliance with the Interconnection Requirements or the requirements of Paragraph 5.2 in respect of any existing Customer for whom, in the Transmission Administrator's reasonable opinion, the imposition thereof would create severe hardship or unnecessary costs.

5.4 The Transmission Administrator shall maintain the reliability of the AIES and the Western Interconnection in accordance with the RMS. The Transmission Administrator may amend the Interconnection Requirements in order to reflect, and to adhere to, changes to the RMS from time to time, upon further approval by the AEUB.

5.5 Article 5.2 does not apply to generators in existence as of June 1, 2000 that do not have a suitable excitation system unless the Transmission Administrator indicates otherwise. If the Transmission Administrator requires PSS or AVR to be added to a currently regulated generator in the future, the Transmission Administrator will pay any costs prudently incurred in the installation of the PSS or AVR and will recover prudently incurred costs from tariff(s) approved by the AEUB. Any costs incurred by the currently regulated generators in the installation of the PSS or AVR that are found by the AEUB to be imprudent in any TA tariff proceeding will be reimbursed to the Transmission Administrator by the party receiving the payment.

5.6 If the excitation system of an existing regulated or unregulated generator to which Article 5.2 does not apply is rebuilt or replaced, the new excitation system must be suitable for PSS, and a PSS/AVR must be installed.

ARTICLE 6
OPPORTUNITY SERVICE

6.1 To qualify for Opportunity Service the Customer shall submit a pre-qualification application to the TA. The Customer must also meet the specified eligibility criteria and must demonstrate that the intended use of the service would not proceed any other applicable rate. The Customer will pay a non-refundable $5,000 fee to the Transmission Administrator to evaluate the commercial eligibility of the Customer's DOS pre-qualification application. See Appendix B for a copy of the appropriate DOS proformas.

6.2 An Opportunity Service Customer shall only consume Opportunity Service for Metered Energy above its Contract Capacity. Opportunity Service Customers shall take System Access Service for all Billing Capacity equal to or below the Contract Capacity pursuant to Rate Schedule DTS.

6.3 In the event that the Metered Energy in a Billing Period for an Opportunity Service Customer is taken at a rate above the aggregate of the Opportunity Capacities under all such Customer's Opportunity Service System Access Service Agreements:

(a) The Metered Energy transfer at a rate above the said aggregate of Opportunity Capacities shall be added to the Metered Energy for the purpose of calculating the Customer's charges for that Billing Period under Rate Schedule DTS; and

(b) In the event that an Opportunity Service Customer has a Contract Capacity of zero and has not executed a System Access Agreement for DTS services, such Customer shall be deemed to have executed such an agreement, effective the beginning of the relevant Billing Period for which the aggregate of Opportunity Capacities was exceeded, for the purposes of determining a Billing Capacity, and for the purposes of applying the charges referred to in paragraph (a) above.

6.4 Opportunity Service is recallable:

(a) in accordance with the Rate Schedules;

(b) in accordance with the provisions of Article 13 below;

(c) whenever sufficient transmission system capacity becomes temporarily or permanently unavailable; and

6.5 From time to time, the Transmission Administrator may audit any Customer's eligibility for Opportunity Service. If, as a result of its audit, the Transmission Administrator finds that the Customer is or has been serving loads which do not, or no longer, qualify for Opportunity Service, the Transmission Administrator will change the Rate Schedule pursuant to which the Customer is billed. The

Transmission Administrator may, in its sole discretion, recover retroactive amounts equal to the payments the Customer would have had to make if it had been taking System Access Service as a Non-Recallable Customer for the periods during which such Customer did not qualify for Opportunity Service. In the event the Transmission Administrator determines that the Customer is no longer qualified for Opportunity Service and prior to executing an agreement for Non Recallable Service, the Customer will be deemed to have executed such agreement, with the effective date of such agreement to be the effective date of disqualification.

6.6 Opportunity Service contracts will be offered under the following conditions:

(a) Commencement of the initial application for opportunity service must be requested at least 30 days prior to taking opportunity service;

(b) The applicant must have been determined, in the sole opinion of the TA to have met the commercial eligibility criteria for Opportunity Service and in particular the use of the Opportunity Service would not proceed on any other applicable rate;

(c) subsequent applications for opportunity service with the same parameters as the initial qualification application must be requested at least one hour prior to taking opportunity service;

(d) the minimum term of an opportunity service shall be a continuous eight hours from 00:00 hrs. midnight to 24:00 hrs., or such other minimum term as the Transmission Administrator may, in its discretion, set; and

(e) the maximum term of an opportunity service is one calendar month.

ARTICLE 7
INTERCONNECTION APPLICATION FEES

7.1 Effective January 1, 2002, the Transmission Administrator shall charge and the Customer shall pay a non-refundable interconnection application fee (the "Application Fee") to recover the Transmission Administrator's internal costs associated with a Customer's request for interconnection to the AIES. These costs may include, but are not limited to, the costs of estimating, engineering, customer service, project management, contracting and administration. The Transmission Administrator will not process the Customer's application, conduct the analysis or provide the detailed information to the Customer until the Customer has provided the Transmission Administrator with:

(a) a completed system access application form (copies of the Stage 1 and Stage 2 application forms can be obtained from the Transmission Administrator's website); and

(b) subject to Paragraph 7.4, the Application Fee paid in full.

7.2 Subject to Paragraph 7.4, the Application Fee charged is broken down into two stages and the stages are further broken down depending on the size of the Customer's proposed project:

(a) Stage 1 fees cover the Transmission Administrator's costs to provide the Customer:

(i) a draft functional specification;

(ii) in the case of a Customer which is a generator, a preliminary loss factor calculation; and

(iii) a cost estimate of the work specified in the draft functional specification;

(b) Stage 2 fees cover the Transmission Administrator's costs to provide the Customer:

i) an energization certificate.

ii) application by the TFO for transmission facilities;

iii) supporting letter from the Transmission Administrator to the Board on the facility application by the TFO; and

iv) provision of a System Access Agreement.

7.3 The Stage 1 and Stage 2 Application Fees are as follows:

Project Size	Stage 1 Fee	Stage 2 Fee
< 10 MW	$5,000	$5,000
> 10MW≤ 15 MW	$8,000	$8,000
> 15 MW ≤ 25 MW	$15,000	$15,000
> 25 MW	$40,000	$50,000

7.4 At the start of Stage 1 or Stage 2 the Customer, at its sole discretion, may elect to pay the actual Transmission Administrator costs associated with interconnection plus thirty percent (the "Hourly Application Fee") instead of the Stage 1 or Stage 2 Application Fees.

If the Customer elects to pay the Hourly Application Fee, the Customer will provide the Transmission Administrator with a deposit equal to the applicable Stage 1 or Stage 2 Application Fee. At the completion of the stage of the project the Transmission Administrator will provide the Customer with a detailed invoice of the work. If the deposit exceeds the amount of the invoice, the Transmission Administrator will refund the excess funds to the Customer. If the amount of the invoice exceeds the deposit the Customer shall pay the Transmission Administrator the amount owing.

7.5 Within five (5) business days of receiving a system access service application form and full payment of the Application Fee, the Transmission Administrator will review the system access service application to determine if it is complete and contains all the necessary information.

7.6 If the system access service application is complete the Transmission Administrator will notify the Customer, in writing, that the system access service application is complete (the "Confirmation Notice").

7.7 If the system access service application is not complete or the Application Fee has not been paid in full, the Transmission Administrator will notify the Customer, in writing, of the deficiencies (the "Deficiency Notice") and the application will not be processed.

7.8 A Customer or potential Customer may request the Transmission Administrator provide a preliminary loss factor calculation (only), in which case the Customer shall provide a completed loss factor calculation application form (copies of which can be obtained from the Transmission Administrator's web site) and pay a non-refundable fee of Twenty five hundred dollars ($2,500) to the Transmission Administrator.

7.9 For all other requests for service the Customer shall pay the Transmission Administrator's actual costs to prepare and provide the information, pursuant to the procedure set out in Paragraph 7.4.

7.10 Upon the Transmission Administrator providing the Customer with the documents and information set out in paragraph 7.2(a) at the completion of Stage 1, the Customer has sixty (60) days to notify the Transmission Administrator whether the Customer is proceeding to Stage 2, and , in the event it is proceeding, provide the Transmission Administrator with a completed Stage 2 application form. If the Customer elects not to proceed, does not notify or provide the Transmission Administrator with the Stage 2 application (along with Stage 2 Application Fee) within the 60 day period, the Customer's system access service application will be deemed to have been cancelled and the project shall be removed from the Transmission Administrators' project list.

7.11 If a Customer's system access service application has been cancelled pursuant to paragraph 7.10, and the Customer subsequently wishes to reinstate its application the Customer must start the application process from the very beginning (i.e. submit a Stage 1 application and Application Fees pursuant to paragraph 7.1).

7.12 All detailed studies shall be conducted by the Transmission Administrator in the order in which the Transmission Administrator receives payment therefor. In the interest of maintaining confidentiality of each and every Customer and potential Customer, the Transmission Administrator shall conduct all detailed studies only on the basis of available information about actual and planned AIES facilities. For planning purposes, only those facilities with respect to which a Construction Commitment Agreement has already been executed shall be deemed "planned facilities". The Transmission Administrator shall not be liable to any Customer or potential Customer for any changes to the actual or planned facilities which occur between the date upon which the Transmission Administrator issues the detailed study and the date upon which the Customer executes a Construction Commitment Agreement.

7.13 All applications made by customers under previous Tariffs will continue to be offered service in accordance with those Tariffs. Stage 1 and Stage 2 fees will not be assessed to applications made prior to January 1, 2002. Any application made prior to January 1, 2002, which does not reach the end of Stage 1 by December 1, 2002, will be terminated.

ARTICLE 8
SECURITY FOR NEW TRANSMISSION FACILITIES

8.1 The Transmission Administrator is not obliged to arrange for commencement of the construction of new facilities required to initially facilitate System Access Service, or to accommodate increased Contract Capacity or Opportunity Capacity, for any Customer until that Customer has executed a Construction Commitment Agreement and, if required by the Transmission Administrator, has provided to the Transmission Administrator a performance bond, parental guarantee, irrevocable letter of credit or other security ("the security") in an amount adequate to fund cancellation costs as referenced in Paragraph 8.2 or the Transmission Administrator's reasonable estimate thereof, (or any portion thereof deemed appropriate), up to, in the aggregate, a maximum of the estimated costs of construction. The security shall be satisfactory to the Transmission Administrator in form and substance and the Construction Commitment Agreement shall be substantially in the form of the agreement attached hereto as Appendix "C".

8.2 In the event that, after a Construction Commitment Agreement is executed, the System Access Service and new transmission facilities are no longer required for any reason, the Customer shall pay all costs incurred in the procurement and construction of facilities to the date at which construction is ceased, plus all cancellation costs, penalties or other claims accrued due to the cessation and costs required for material salvage and reclamation of the construction site.

8.3 The Customer for whom new transmission facilities were built must execute a System Access Service Agreement prior to Commissioning of the new facilities. System Access Service shall be provided on a temporary basis for Commissioning at the Rate Schedule named in the System Access Service Agreement, however, during Commissioning (only), the Metered Demand may, at the sole discretion of the Transmission Administrator, be disregarded in calculating the Ratchet Level for service under Rate Schedule DTS.

ARTICLE 9
CUSTOMER CONTRIBUTION POLICY

9.1 In considering requests to provide service to a new POC, or to increase the capacity of, or improve the service to an existing POC, the Transmission Administrator will determine the appropriate means of delivering the requested service.

(a) If the Transmission Administrator determines that the most economic option for providing service to a Customer is a facility other than a transmission facility (such as a distribution-level extension or isolated generation), or that the Customer's request primarily represents a shift of supply or demand from an existing POC, then the full cost of the transmission upgrade or extension ("the project") shall be borne by the Customer.

(b) Otherwise, the Customer's contribution to project costs shall be determined in accordance with Article 9.2 through 9.4.

9.2 Project costs will be classified as either system-related costs or Customer-related costs, as follows:

(a) The costs of that part of the project associated with Looped transmission extensions shall be classified as system-related costs, and shall be paid by the Transmission Administrator.

(b) The costs of that part of the project associated with Radial transmission extensions shall be classified as system-related if it is proposed in the transmission development plan (as that plan exists on the date the project is Commissioned) that the extension become Looped within five years. The Customer shall pay the cost of advancing that part of the project from the date established in the transmission development plan, which cost shall be calculated as the difference between the present values of the capital costs of the advanced and as-planned projects using the discount rate as determined under Article 9.12.

(c) Where economics or system planning dictate that a facility larger than that required to serve the Customer is to be installed initially, then the cost of that portion of the project deemed to be in excess of the Customer's needs shall be classified as system-related. As the need to serve additional POCs arises, these system-related costs may be reclassified as Customer-related costs and allocated to the new Customers. The capacity between the Customer's requirements and the minimum size of facilities required to serve the Customer is not considered to be in excess of the Customer's requirements.

(d) All costs not identified under (a), (b), or (c) shall be classified as Customer-related costs. If the project is to serve a Customer not taking service under Rate DTS, then the Customer shall pay all Customer-related costs. Otherwise, the Customer's contribution to Customer-related costs shall be determined in accordance with Articles 9.3 and 9.4.

9.3 Customer-related costs will be classified as either supply-related costs or demand-related costs, as follows:

(a) The fraction of Customer-related costs classified as supply-related shall be STS/(STS+DTS), where STS and DTS are the STS and DTS Capacities, respectively, at the POC. All supply-related costs shall be paid by the Customer.

(b) The Customer-related costs not classified as supply-related costs shall be classified as demand-related costs. The Customer's contribution to demand-related costs shall be in accordance with Article 9.4.

9.4 The Customer's contribution to the demand-related costs shall be calculated as follows:

(a) *Customer contribution = demand-related costs – roll-in ceiling*, where:

(i) *roll-in ceiling = commitment term amount + revenue-related amount*;

(ii) *commitment term amount* = $400,000 for every one-year commitment term after the first five-year commitment term. A commitment term is a period within which the Customer commits to maintain its Contract Capacity at or above its initial Contract Capacity. The maximum commitment term amount is $6 million.

(iii) *revenue-related amount* = three times the levelized annual revenue from the new or expanded service, where the levelized revenue is determined based on the projected Contract Capacities that are contracted at the time of the calculation of the Customer contribution. The discount rate to be used in the calculation of the levelized annual revenue shall be that established under Article 9.12.

(b) If the calculation in (a) results in a negative Customer contribution, no Customer contribution is payable. The Transmission Administrator will make no payment to the Customer with respect to any excess of the roll-in ceiling over the demand-related costs.

9.5 Any Customer contribution to be paid to the Transmission Administrator must be paid prior to the Transmission Administrator initiating procurement of the required facilities, unless other credit arrangements acceptable to the Transmission Administrator are made. The discount rate to be used in any credit arrangement shall be that established under Article 9.12.

9.6 The cost estimate used in the calculation of project costs will be based on certain assumptions, including but not limited to assumptions about the method of construction, the routing of facilities, and the approvals and rights of way required to serve the Customer in accordance with the Customer's requests. In the sole opinion of the Transmission Administrator, where a request for service is changed by a Customer or any assumptions are changed for reasons beyond the reasonable control of the Transmission Administrator or the TFO, and a variance in the cost of the required facilities over the original estimate results, then:

(a) Subject to (b), where there is an increase in the Customer contribution, this amount is immediately payable to the Transmission Administrator, or

(b) If feasible, the Customer and the Transmission Administrator may modify the terms of the contract to adjust the Contract Capacity or the number of commitment terms.

(c) The Customer shall have the right to cancel the request for service by paying to the Transmission Administrator, and/or the TFO, all costs then incurred or required to be incurred to discharge the Transmission Administrator, and/or the TFO, of all obligations and to satisfactorily cancel the request for System Access Service.

9.7 Certain material events may result in a recalculation of the Customer contribution in respect of a project. Any recalculation shall make use of revised commitment terms, revenue-related amounts, and other available information, and may result in payments by the Transmission Administrator to the Customer or by the Customer to the Transmission Administrator. The circumstances giving rise to contribution adjustments include, but are not limited to, those in which:

(a) A Customer materially increases or decreases its Contract Capacity or number of commitment terms prior to the expiration of its original commitment terms;

(b) The actual Contract Capacities and/or incremental revenues turn out to be materially different, on a sustained basis, than originally projected;

(c) A facility that had been classified as system-related under Article 9.2(c) is reclassified as Customer-related due to load growth or the addition of a new POC.

(d) A material error is detected in the original calculation.

(e) A difference between the estimated costs of the project and the actual costs of the project.

9.8 If the Transmission Administrator installs facilities to serve a Customer that is required to pay a contribution, and then uses those facilities to serve other Customers within 20 years of their Commissioning, the Transmission Administrator will adjust the original Customer's contribution and assess each of the new Customers a contribution, as follows:

(a) The contributions of the existing Customer and the new Customers will be determined on the basis of:

(i) the commitment terms of the original and new Customers;

(ii) the revenue-related amounts of the original and new Customers;

(iii) the Contract Capacities of the original and new Customers;

(iv) the extent of shared facilities; and

(v) the time interval between the Commissioning of the original and new Customers.

(b) If the interval described in (a)(v) is not greater than five years, then the original Customer is eligible for the full amount of the adjustment. If the interval is greater than five years, then for the remaining 15 years the adjustment will be determined on a straight-line, declining-balance basis.

(c) Commencing in year 11, any project whose remaining adjustment is less than $50,000 shall be deemed to have an adjustment balance of zero, and no further refunds shall be due.

(d) An adjustment as described above will also apply to situations in which the Transmission Administrator subsequently deems that all or part of an original Customer's facilities have become system-related.

9.9 Where relocation of transmission facilities is required, the Transmission Administrator will ensure that all reasonable costs in relocating any transmission facilities are paid for by the Customer.

9.10 Where new facilities between adjacent Control Areas are required, the cost of such facilities will be shared equally between the Transmission Administrator and the party responsible for costs in the other Control Area.

9.11 The Transmission Administrator reserves the right to exercise its discretion, acting reasonably, in the application of the contribution policy. Without limiting the generality of this discretion, the Transmission Administrator may:

(a) Limit the maximum number of commitment terms used to determine the roll-in ceiling.

(b) Determine costs to be system-related in certain circumstances that might, under strict application of the foregoing, have been classified as customer-related.

(c) Determine that a refund of a Customer contribution may not be given or that a refund may be deferred pending the attainment of certain specified conditions. Upon attainment of the specified conditions, the Customer may be eligible for a full or partial refund.

(d) Determine that a refund of a Customer contribution must be returned to the Transmission Administrator where it is demonstrated that an error was made or that an inappropriate refund was given.

9.12 The discount rate applicable to payments due under this Article shall be determined as follows:

(a) For unassigned transmission facilities, for transmission facilities supplied to the TA by an investor owned Transmission Facility Owner or for facilities supplied to the TA by an income tax paying municipally owned Transmission facility Owner:

$$.65(GCB + 1\%) + .35(GCB + 3.5\%)/(1 - T)$$

where GCB is equal to the yield on 30-year Government of Canada bonds and T is equal to combined federal and provincial income tax rate for investor owned TFOs.

(b) For transmission facilities supplied to the TA by a non income tax paying municipally owned Transmission Facility Owners:

the yield on 30-year Government of Canada bonds plus 1.9 percent.

ARTICLE 10
CREDIT, STATEMENT OF ACCOUNT AND PAYMENT TERMS

10.1 After Commissioning, the Transmission Administrator will issue a Statement of Account for System Access Service to each Customer no later than fifteen (15) Business Days after the end of each Billing Period. The Transmission Administrator will determine the payment required and funds owed by each Customer for System Access Service at each POD and POS, as applicable, using available Metered Demand, Metered Energy or Energy Transfer data, as applicable, to calculate charges and any applicable credits. The Transmission Administrator may deduct amounts owing by the Transmission Administrator to the Customer or its Affiliates under other agreements between the Transmission Administrator and the Customer or its Affiliates from the Statement of Accounts.

10.2 All Customers requiring access to the AIES must execute a System Access Service Agreement with the Transmission Administrator for each POD and POS.

10.3 A Customer obtaining System Access Service may be afforded credit by the Transmission Administrator. The Customer shall provide the Transmission Administrator with any financial information that the Transmission Administrator reasonably requests prior to the Transmission Administrator granting service in order that the Transmission Administrator may establish the Customer's ability to pay and/or creditworthiness.

10.4 The Transmission Administrator may request, at any time a deposit of up to three months' payment in advance for System Access Service, based on the Transmission Administrator's estimate of the appropriate sum based on the Customer's historic usage.

10.5 If the Customer fails to provide adequate security or advance payment to the Transmission Administrator within ten (10) days of the Transmission Administrator's request, the Transmission Administrator may immediately withhold or suspend the Customer's System Access Service. However any such withholding or suspension shall not relieve the Customer from any obligation to pay any rate, charge or other amount payable which has accrued or is accruing to the Transmission Administrator.

10.6 The Transmission Administrator may use estimated values to produce a Statement of Account when Metered Demand data is not available or is incomplete, when Metering Equipment fails, or when the data is under Dispute. The Transmission Administrator may also use estimated values to produce a Statement of Account if the Transmission Administrator's billing and settlement system is unable to produce a Statement of Account. In the event that a Statement of Account is based on estimated values, an adjustment will be made on a subsequent Statement of Account to reflect the use of actual or more appropriate estimated values and the Transmission Administrator may increase or reduce the amount billed in a subsequent Statement of Account in order to correct any underpayment or overpayment.

10.7 Effective January 1, 2002, where a Customer is an industrial site where multiple POCs are required, the Transmission Administrator may totalize the POCs and produce one Statement of Account for the Customer. The Transmission Administrator will base its decision to totalize on a review of the economics of providing more than one POC, reclassification of the site as an AEUB designated industrial system, or the existence of a credible transmission bypass alternative.

10.8 The Customer shall pay the entire amount reflected as owing by it on the Statement of Account, notwithstanding any unresolved Dispute between the Transmission Administrator and the Customer, no later than the twentieth Business Day after the end of the Billing Period. Payment shall be made by way of electronic funds transfer to the bank account specified by the Transmission Administrator.

10.9 Late payments by the Customer shall be subject to a late payment charge of 1.5% per month for each month or part thereof for which such payment is late. The Transmission Administrator will also assess the defaulting Customer for all administrative and collection costs relating to the recovery by the Transmission Administrator of amounts owed. The Transmission Administrator may suspend System Access Service and realize upon any security provided by the defaulting Customer if the Customer is in arrears by more than one month. System Access Service to the Customer shall not thereafter be re-instated until the Customer has paid all amounts owing to the Transmission Administrator in full and has restored or secured its credit facility in a manner satisfactory to the Transmission Administrator.

ARTICLE 11
PROVISION OF INFORMATION BY CUSTOMERS

11.1 Customers shall provide the following information necessary to enable the Transmission Administrator to provide and maintain System Access Service that is safe, adequate and proper. When the required information has an impact on safety or system security, failure to provide the required information will result in suspension, termination or delay of System Access Service. System Access Service will not thereafter be reinstated, terminated or modified (as the case may be) until the necessary information is provided to the Transmission Administrator. When the required information does not have an impact on safety or system security, failure to provide the required information will result in the Transmission Administrator making application for approval of an information sharing arrangement pursuant to the Act and seeking to recover 100% of the actual costs of pursuit of its application from the Customer whose actions necessitated the application.

11.2 In addition to payment of the Application Fee (provided for in Article 7 above), information is required prior to providing a detailed cost quotation for new System Access Service. Detailed information is required to assess the impact of new demand or generation on the system, to determine whether new transmission facilities will be required in order to accommodate the new load or generation, and to produce functional specifications necessary to procure any new transmission facilities.

11.3 A Demand Customer shall provide a detailed request for System Access Service to accommodate a new or increased demand, which must include information regarding the retail customer’s identity, the location, peak expected operating demand, desired in-service date and a forecast of future demand.

11.4 A Supply Customer who is requiring service for new generation or increase in capacity at an existing generation plant must submit a detailed request for System Access Service. The request must include information regarding the electrical characteristics of the generator so that the Transmission Administrator can complete a detailed analysis of impact on the system and produce a detailed cost quotation.

11.5 The appropriate forms for making a detailed request for System Access Service are published on the Transmission Administrator’s website.

11.6 Additional technical information shall be required during construction and prior to energization of new interconnections or increases of capacity at existing PODs and/or Commissioning at POSs so that the Transmission Administrator may ensure the ongoing security of the existing electrical system. Technical information is required prior to energization of load, as requested by the Transmission Administrator, regarding the new transmission facilities including, but not limited to, transformer and line information. Technical information is required prior to Commissioning of new generation, as requested by the Transmission Administrator, including, but not limited to, data regarding the electrical characteristics of the generator and unit transformer. The appropriate forms for fulfilling pre-commissioning information requirements are published on the Transmission Administrator's website.

11.7 Additional information may be required prior to Commissioning and Commercial Operation. Commissioning shall not occur until the Customer has received written approval thereof from the Transmission Administrator.

11.8 The Transmission Administrator requires forecast information and updated information from all Customers to plan, operate and optimize the AIES. On October 1st of each calendar year and whenever new information arises, all Customers shall provide the Transmission Administrator with a copy of the Customer's operating procedures and a schedule of planned or maintenance outages for the two subsequent calendar years. On October 1st of each calendar year and whenever new information arises, all Customers shall provide the Transmission Administrator with forecast information for the subsequent five (5) years, including:

(a) Forecast Maximum Contract Capacity by POD or POS by month,

(b) Location and size of any new POD and POS required,

(c) Name and location of existing POD and POS which may no longer be required.

The appropriate forms for provision of forecast and update information are published on the Transmission Administrator's website.

11.9 The Transmission Administrator requires detailed information regarding Metering Equipment information. The Customer shall provide the Transmission Administrator with the Metering Equipment information outlined in Appendix "D".

11.10 The Customer shall provide to the Transmission Administrator, upon request, any information that the Transmission Administrator requires in order to discharge its duties and functions under the Act and for compliance with any external agency's reporting requirements.

11.11 If the Customer is the Buyer of a PPA, it shall provide written confirmation to the Transmission Administrator that it has entered into an agreement with the owner of the underlying Regulated Generating Unit (the "Owner") whereby the Customer shall:

(a) temporarily assign its System Access Service Agreement(s) to the Owner for the duration of the events described in Article 14 (Force Majeure)and Article 15 (Destruction of Unit) of the PPA; and

(b) permanently assign its System Access Service Agreement to the Owner if the Buyer of the PPA has terminated the PPA in accordance with Article 14 (Force Majeure), Article 15 (Destruction of Unit) or Article 16 (Default and Termination) of the PPA.

11.12 The Transmission Administrator is not responsible for any delay, interruption, damage or other problems caused by a delay in the provision of information required from a Customer under the provisions of this Article 11.

ARTICLE 12
METERING

12.1 The selection, use and calibration of Metering Equipment shall be accomplished in accordance with the E&GI Act, except where the Transmission Administrator requires revenue meters to be accurate to within 0.5% for loads up to 10 MVA and 0.2% for loads above 10 MVA (the "System Accuracy Standard").

12.2 The Customer may arrange to have any Non-dispensated Metering Equipment tested and/or calibrated to the System Accuracy Standard. If the Customer requests a test and the meter is subsequently found to be accurate within the System Accuracy Standard, then the Customer shall pay for the cost of the testing and shall be invoiced for this cost in its next Statement of Accounts.

12.3 The Transmission Administrator may, at its discretion, require a Customer to install Metering Equipment on the Customer's premises, at the Customer's sole cost, and the Customer shall comply with such a request in a timely manner. If the Customer refuses or fails to comply with such a request, the Transmission Administrator may request, and the Customer shall grant, access at any reasonable time to the Customer's premises so the Transmission Administrator may enter the Customer's premises to install Metering Equipment, at the Customer's sole cost.

12.4 The Transmission Administrator may request, and the Customer shall grant, access at any reasonable time to the Customer's premises so the Transmission Adminsitrator may, at the Customer's sole cost, enter the Customer's premises to read any Metering Equipment installed on the Customer's premises.

12.5 The Customer may request, at the Customer's sole cost, that the Transmission Administrator arrange for testing of any Metering Equipment.

12.6 The Transmission Administrator may require testing of Metering Equipment at any time. In the event that the Metering Equipment meets the System Accuracy Standard, the Transmission Administrator shall bear the cost of such testing. In the event that the Metering Equipment does not meet the System Accuracy Standard, the Customer shall bear the costs of such testing and the required recalibration.

12.7 If a Dispute should arise with respect to the Metering Equipment or Metering Equipment data, the Dispute shall be resolved in accordance with the provisions of Article 16 below.

12.8 Metering signals in the form of energy pulses, reactive energy pulses, analog values of energy and reactive energy can be provided to the Customer, upon written request and at the Customer's cost. This cost shall be included in the Customer's Statement of Accounts.

12.9 All Customers shall provide Metering Equipment that measures Metered Demand in fifteen (15) minute intervals. The Transmission Administrator may, at its discretion, require a Customer to provide Metering Equipment that is capable of measuring Metered Demand at one (1) minute intervals or at such other intervals as may be determined by the Transmission Administrator.

12.10 The Customer shall make reasonable efforts to provide the Transmission Administrator, in accordance with the E&GI Act and the TAOPS, the following data:

(a) fifteen (15) minute interval POC metering data; or

(b) if requested by the Transmission Administrator, one (1) minute interval POC metering data.

The Customer shall provide the metering data set out above, for the previous day, by 12:00 p.m. of the next business day. Revenue class meters will be used for billing purposes, energy purchases and sales and system support service purchases.

12.11 Subject to Paragraph 12.12, failure to comply with the metering requirements set out in this Article 12 shall result in the Transmission Administrator withholding, suspending or terminating System Access Service.

12.12 The Transmission Administrator shall not withhold, suspend or terminate System Access Service under paragraph 12.11 unless and until the metering non-compliance has been resolved in accordance with the provisions of Article 16, the Customer has failed to adhere to the arbitrator's decision in a timely manner and the Transmission Adminsitrator has provided the Customer with five (5) days prior written notice of its intention to withhold, suspend or terminate System Access Service.

ARTICLE 13
SERVICE INTERRUPTIONS AND FORCE MAJEURE

13.1 Although precautions are taken to guard against System Access Service interruptions, the Transmission Administrator does not guarantee uninterrupted System Access Service. The Transmission Administrator is not responsible for interruptions which occur as a result of:

(a) scheduled or planned facility maintenance activities;

(b) construction, commissioning and facility testing activities;

(c) unscheduled or unplanned events (such as, but not limited to, emergency equipment maintenance and Emergencies);

(d) Force Majeure;

(e) breaches of obligations owed to the Transmission Administrator by its suppliers or Customers; or

(f) as otherwise expressly allowed by a Rate Schedule.

13.2 Whenever System Access Service has been interrupted, diminished or reduced for reasons other than a breach of these Terms and Conditions by the Customer, the Transmission Administrator shall make all reasonable efforts to ensure that service is restored as soon as practicable after the interruption, diminution or reduction.

13.3 The Customer's obligations to pay for System Access Service, to provide information and to maintain Interconnection Requirements shall not be affected during, or as the result of, any event of Force Majeure or other System Access Service interruption expressly contemplated under this Tariff.

ARTICLE 14
LIMITATION OF LIABILITY

14.1 Notwithstanding anything to the contrary contained in these Terms and Conditions, no action lies against the Transmission Administrator, nor its affiliates, directors, officers or employees ("Transmission Administrator Persons") and Transmission Administrator Persons are not liable for any act or omission carried out or purportedly carried out in accordance with this Tariff ("Transmission Administrator Person Act") unless the Transmission Administrator Person Act constitutes wilful misconduct, negligence, breaching of contract or if the Transmission Administrator Person Act is not carried out in good faith. If a Transmission Administrator Person is liable to another person for a Transmission Administrator Person Act, then the Transmission Administrator Person is liable for only Direct Loss or Damage suffered or incurred by that other person.

ARTICLE 15
INCREASES, REDUCTIONS OR TERMINATION OF CONTRACT CAPACITY

15.1 In the event that a Customer desires to increase the Contract Capacity in its System Access Service Agreement at an existing POD or POS, the Customer must execute an amended System Access Service Agreement. If new facilities or upgrades are required to provide the new service or to provide the amended service level, the requirements for a Customer Contribution shall apply and the provisions of Article 8 shall be applicable.

15.2 The Contract Capacity for a new POS established by the Transmission Administrator shall not exceed the sum of the MCR of all generators connected to the AIES by the new POS less the sum of all gross loads that offset the energy delivered to the AIES from that POS under normal operating conditions.

15.3 (a) Subject to paragraphs (b) and (c), the Metered Demand for a Customer taking service under Rate Schedule DTS or Rate Schedule STS shall not exceed the lesser of:

(i) 110% of the Contract Capacity;

(ii) the Rated Capacity of any transmission facilities comprising its interconnection; or

(iii) the Physical Capacity of any transmission facilities comprising it's interconnection.

In the event that the foregoing is not complied with, the Transmission Administrator shall have the right to discontinue the applicable System Access Service until the Customer installs equipment to limit its Metered Demand.

(b) A DTS Customer may temporarily exceed the level stipulated in subparagraph 15.3(a)(i) to the extent it has in place a System Access Service Agreement for an Opportunity Service at the applicable POD.

(c) Subject to subparagraph 15.3(d) an STS customer may temporarily exceed the level stipulated in subparagraph 15.3(a)(i), with the Transmission Administrator's consent obtained on a minimum twenty-four (24) hours' notice, provided that the Transmission Administrator determines that the transmission system can safely accommodate the proposed energy without risk of disturbance to other Transmission Administrator customers.

(d) Under exceptional circumstances, the Transmission Administrator may allow a reduction to the notice provisions for STS customers with frequently repeated transactions of similar size and duration, but under no circumstance will a notice period of less than one (1) hour be accepted.

15.4 At least once per year, the Transmission Administrator will review the Contract Capacity of STS customers. The Transmission Administrator may reduce a customer's STS Contract Capacity to:

(a) The mean metered power delivered to the AIES in the preceding twelve (12) months; or

(b) For low capacity factor generators, the mean metered power delivered to the AIES over recurrent periods that are shorter than twelve (12) months, as determined by the Transmission Administrator

if such deliveries are more than 10% below the existing Contract Capacity or as mutually agreed to between the Customer and the Transmission Administrator.

15.5 System Access Service Agreements between the Transmission Administrator and Customers who operate Regulated Generating Units shall be terminated on the PPA Effective Date, with the exception of Regulated Generating Units that are not sold at the PPA auction and the Regulated Generating Units that are listed in Table “A” to Appendix ‘F’.

15.6 System Access Service Agreements with an effective date after the PPA Effective Date between the Transmission Administrator and Customers who operate Regulated Generating Units or who have entered into a Power Purchase Arrangement with the owner of a Regulated Generating Unit shall terminate at the end of the base life year of the Regulated Generating Unit as outlined in Part 1 of the Schedule attached to the Act with the exception of the following Regulated Generating Units listed below:

(a) Rossdale Units 8, 9 and 10's deemed base life year shall be 2003; and

(b) Rainbow Units 1, 2 and 3's deemed base life year shall be 2005;

15.7 Reductions of Contract Capacity at a POD or a POS will be made five (5) years after receipt of written notice from the Customer. The Contract Capacity immediately following the five (5) year notice period shall be the maximum of:

(a) the pre-notice Contract Capacity less the reduction of Contract Capacity requested by the Customer; or

(b) the highest Metered Demand during the notice period less the reduction of Contract Capacity requested by the Customer.

15.8 Separate written notice must be provided for increases or reductions of Contract Capacity at each respective POD and POS at a single transmission station; no net reductions will be accepted or effected.

ARTICLE 16
DISPUTE RESOLUTION

16.1 A Dispute shall be referred to a senior officer from each of the Transmission Administrator and the relevant Customer for resolution.

16.2 If the Dispute has not been resolved within thirty (30) days after referral to the senior officers, either the Transmission Administrator or the Customer may require, by written notice, that the Dispute be resolved through arbitration. The Transmission Administrator shall advise the AEUB of any matter going to arbitration within thirty (30) days of the matter being referred to arbitration. The parties shall appoint a mutually satisfactory arbitrator within ten (10) days of the notice to resolve the Dispute through arbitration. In the event that the parties cannot agree on a single arbitrator within ten (10) days, each party shall appoint an arbitrator within ten (10) days thereafter by written notice, and the two arbitrators shall together appoint a third arbitrator. In the event that a tribunal is required, the third arbitrator shall be appointed within twenty (20) days of written notice for arbitration. The arbitrator or tribunal shall render a decision within thirty (30) days of the last appointment. The Transmission Administrator shall advise the AEUB of the results of the arbitration within thirty (30) days of the Arbitrator's decision. The Transmission Administrator shall also furnish the AEUB with a list of parties potentially affected by the results of the arbitration. The arbitration shall be conducted in accordance with the Arbitration Act (Alberta), as amended from time to time. In the event of a conflict between these Terms and Conditions and the Arbitration Act, these Terms and Conditions shall prevail.

16.3 Any interested party adversely and unduly affected by the decision of an arbitrator or a tribunal is entitled to make an application to the AEUB requesting a clarification or change to these Terms and Conditions.

16.4 Pending resolution of any Dispute, the Transmission Administrator and the Customer shall continue to perform their respective obligations under this Tariff.

ARTICLE 17
MAINTENANCE OF RECORDS

17.1 The Transmission Administrator shall maintain records for a period of ten (10) years relating to those matters associated with the Tariff, such as capital costs of facilities, which require such level of data retention to perform necessary calculations or otherwise provide necessary information, and for any other matter, the Transmission Administrator shall maintain records for a period of six (6) years. Data required to verify any billing information provided by the Transmission Administrator may be made available to Customers during regular business hours and the Customer will be responsible to pay for all of the costs of retrieval and provision of the data.

ARTICLE 18
COSTS ASSOCIATED WITH REBILLING

18.1 When invoices to Customers have to be recalculated and reissued forty-five (45) days or more after end of the applicable billing period as a result of:

(i) unavailable or incomplete meter data, or

(ii) inaccurate estimates of meter data,

(iii) reconciliation with updated estimates of meter data,

the cost of recalculating and reissuing the affected Statement of Account shall be recovered from the Customer taking service from the relevant Metering Equipment. The Transmission Administrator shall charge $1,000 for each recalculated and reissued invoice.

ARTICLE 19
NOTIFICATIONS

19.1 All notices given or served upon the Transmission Administrator in accordance with this Tariff shall be in writing and shall be marked "Important" and given by personal service, telefax or by registered letter addressed to:

Transmission Administrator of Alberta
Attention: Manager, Customer Service
900, 736 – 8 Ave SW
Calgary, Alberta, T2P 1H4

or by telefax addressed to:
Transmission Administrator of Alberta
Attention: Manager, Customer Service
Fax (403) 705-5295

19.2 All notices given or served upon the Customer in accordance with this Tariff shall be in writing served by personal service, registered letter or telefax and sent to the address or addresses shown for such Customer in the relevant System Access Service Agreement.

ARTICLE 20
SPRDA GENERATORS

20.1 Generating Units constructed under the *Small Power Research and Development Act* (Alberta) ("SPRDA") are exempt from the provisions of Rate Schedule STS to the extent of the volume of energy sales which they conduct under contracts specifically executed pursuant to the provisions of the SPRDA.

ARTICLE 21
PEAK METERED DEMAND WAIVER

21.1 The Transmission Administrator may, in its sole discretion, waive the Metered Demand set in a Billing Period or any prior Billing Periods for the purposes of calculating the Billing Capacity when such level of Metered Demand was caused by one of the following:

(a) Commissioning as defined in the Article 1;

(b) activities required to repair and maintain transmission facilities;

(c) pre-scheduled activities required to repair and maintain distribution facilities;

(d) load restoration activities following an outage of transmission or distribution facilities or caused by an Emergency;

(e) an event of Force Majeure; or

(f) compliance with a dispatch instruction from the System Controller during an Emergency.

ARTICLE 22
TRANSMISSION SYSTEM EXPANSION

22.1 Except in exceptional circumstances, the following material new transmission facilities shall be competitively procured:

(a) facilities with a capital construction cost of $10 million dollars or more;

(b) facilities of a voltage of 240kV or higher; or

(c) interconnections with neighboring Control Areas.

22.2 The Transmission Administrator reserves the right to directly assign the construction of a new transmission facility in the event that the Transmission Administrator determines that the costs of administering a competitive procurement process would outweigh the benefits thereof.

22.3 Subject to Paragraphs 22.1 and 22.2, any Customer whose interconnection to the AIES requires the construction of material new transmission facilities, whose load or generation equals or exceeds 5 MW and who is transmission-interconnected, may elect to have the facilities competitively procured by the Transmission Administrator. Any Customer electing to have the Transmission Administrator competitively procure transmission facilities which do not meet one or more of the criteria listed in Paragraph 22.1 shall pay all reasonable out-of-pocket expenses (including, but not limited to, legal fees, technical consultants' fees and regulatory expenses) incurred by the Transmission Administrator while conducting the competitive procurement process. The Transmission Administrator shall be entitled to require the payment of deposits from time to time during the course of the competitive procurement process and the Transmission Administrator shall be entitled to withhold continuation of the process until such time as deposits are made.

22.4 In the event that a Customer requires facilities to be built in addition to those which the Transmission Administrator would otherwise provide ("Optional Facilities"), the Customer will be required to pay 100% of the cost of those additional facilities, however the Customer may choose to have those Optional Facilities competitively procured by the Transmission Administrator, subject to Paragraph 22.1 and in accordance with Paragraph 22.3.

22.5 The Transmission Administrator shall procure all transmission facilities. No Customer shall, without the prior written consent of the Transmission Administrator, directly procure transmission facilities, whether competitively or otherwise, except for transmission facilities directly assigned by the Transmission Administrator.

ARTICLE 23
MISCELLANEOUS

23.1 Each respective System Access Service Agreement executed by the Transmission Administrator hereunder shall be binding on any subsequent Transmission Administrators) for the length of its term.

23.2 A Customer can assign its System Access Service Agreement or any rights thereunder to another Customer who is qualified for the service available under such agreement, but only with the consent of the Transmission Administrator, such consent not to be unreasonably withheld.

23.3 In the event of any conflicts between the provisions of these Terms and Conditions, and the provisions of the Rate Schedules, the provisions of these Terms and Conditions shall govern.

23.4 Customers shall comply with dispatches and directives of the System Controller which are required for performance of Customers' obligations hereunder in real-time, including, without limitation, those related to Interconnection Requirements and provision of System Support Services.

ARTICLE 24
EMERGENCY PROVISION OF SYSTEM SUPPORT SERVICES

24.1 During an Emergency, the System Controller may require a Customer to operate its Generating Unit to provide System Support Services. For the period during which the Emergency persists, Customers required to provide System Support Services shall be compensated as provided in sections 24.2 or 24.3 (whichever is applicable).

24.2 If at the time of the Emergency the Customer has an existing contract with the Transmission Administrator, either directly or indirectly, to provide System Support Services (the "Existing Contract"), then the amount to be paid to the Customer by the Transmission Administrator for the System Support Services shall be determined according to the terms of the Existing Contract.

24.3 If the Customer does not have an Existing Contract, then the amount to be paid to the Customer by the Transmission Administrator in respect of each ancillary service provided shall be the greater of:

(a) The sum, over all hours during which the Customer is required to provide the System Support Service pursuant to section 24.1, of the product of the hourly MW dispatch and the highest price paid in the hour to Customers providing the System Support Service pursuant to Article 24.2; or

(b) The sum, over all hours during which the Customer is required to provide the System Support Service pursuant to section 24.1, of the product of the hourly MW dispatch and 110% of the energy price in the hour as set by the Power Pool of Alberta, plus any additional charges from the Power Pool of Alberta (including but not limited to uplift charges) and charges from the Transmission Administrator; or

(c) The direct costs incurred by the Customer to provide the required System Support Service, plus ten percent. Direct costs include, but are not limited to, Generating Unit start-up costs, costs to purchase replacement energy to fulfil Customers' contractual obligations, fuel costs and variable operation and maintenance costs; however, direct costs do not include indirect, incidental, consequential, or special damages arising out of or relating to the Customer providing System Support Services; or

(d) The verifiable opportunity cost incurred by the Customer to supply the required System Support Services; or

(e) The sum, over all hours during which the Customer is required to provide the System Support Service pursuant to section 24.1, of the product of the hourly MW dispatch and the hourly difference between the Customer Offer

Price and the Pool Price, where Customer Offer Price is the current valid offer into the Power Pool or, if no current valid offer exists, the average of the offers spanning the most recent complete daily Off-Peak or On-Peak period, as the case may be, that have been made to and accepted by the Power Pool as valid offers.

24.4 For the purposes of this Article, MW dispatch means the amount of a System Support Service (expressed in MW) that is provided by the Customer in response to a dispatch by the System Controller.

ARTICLE 25
CONFIDENTIALITY

25.1 The Transmission Administrator:

(a) shall not disclose the Confidential Information to any person except as permitted under this Tariff;

(b) shall only use or reproduce the Confidential Information for the purpose for which it was disclosed or another purpose contemplated in this Tariff;

(c) shall not permit unauthorized persons to have access to the Confidential Information; and

(d) shall only disclose the Confidential Information to those Representatives who need to know the information and have been informed of the confidential nature of the Confidential Information.

25.2 Exceptions to the confidentiality obligations stated in Paragraph 25.1 will be made when:

(a) the disclosure, use or reproduction of information if the relevant information is at the time generally and publicly available other than as a result of breach of confidence by the Transmission Administrator;

(b) the disclosure, use or reproduction of information with the consent of the person or persons who provided the relevant information;

(c) the disclosure, use or reproduction of information to the extent the Confidential Information:

(i) must be disclosed by law to any agent, government or governmental body, authority or agency having jurisdiction over the Transmission Authority;

(ii) must be disclosed to the Power Pool of Alberta or System Controller for the purposes of the Transmission Administration fulfilling its duties under the *EUA* (Alberta); and

(iii) must be disclosed to a TFO for the purposes of the Transmission Administrator fulfilling its duties under the *EUA* (Alberta). All information provided to a TFO shall be subject to the confidentiality provisions in the TFO's Terms and Conditions of service.

the disclosure, use or reproduction of information if required in connection with legal proceedings, arbitration, expert determination or other dispute resolution mechanism relating to this Tariff;

(d) the disclosure of information if required to protect the safety of personnel or equipment, or to protect the reliability of the AIES; and

(e) the disclosure, use or reproduction of information as an unidentifiable component of an aggregate of information.

25.3 In the case of a request or demand for disclosure under Paragraph 25.2(c)(i) or Paragraph 25.2(d), the Transmission Administrator will provide notice to those affected by the request or demand as soon as reasonably practicable, so as to afford the opportunity to challenge such request or demand or seek injunctive relief or protection from the request or demand.

25.4 No provision of this Tariff obligates the Customer to treat its own information and agreements with the Transmission Administrator as confidential.

Appendix "A"

Intentionally Left Blank

Appendix "B"

System Access Service Agreement Proformas

SYSTEM ACCESS SERVICE AGREEMENT
DEMAND TRANSMISSION SERVICE

The following constitute the terms pursuant to which the Transmission Administrator (TA) shall provide System Access Service to the Customer. (Defined terms used herein without definition shall have the meanings ascribed thereto in the Terms and Conditions of the Transmission Administrator's Tariff).

1. TYPE OF SERVICE

Service under this Agreement shall be provided pursuant to Rate Schedule Demand Transmission Service (DTS).

2. POINT OF INTERCONNECTION WITH THE TRANSMISSION SYSTEM

(a) Point of Supply (POD): The POD shall be [description, e.g. relative to Substation]

(b) Location:
Township__________ Range____________ W_____M

3. CONTRACT CAPACITY

"x" MW

4. COMMISSIONING PERIOD FOR NEW FACILITIES, IF ANY:

5. EFFECTIVE DATE

____________ __, 2001

6. CUSTOMER CONTRIBUTION

The Customer Contribution charge is $___________.

Number of Commitment terms _______ x 5 equals _________ years.

7. RATES AND TERMS OF SERVICE

The supply of System Access Service pursuant to this Agreement, and the Customer's obligations with respect to connection and supply of System Support Services, shall be subject to the Transmission Administrator's Tariff, in particular to the Rate Schedule referenced under Paragraph 1.

8. NOTICES

Notices sent to the Customer pursuant to this Agreement shall be as follows:

Invoices: Attention: ______________________________
Address: ______________________________
____
____
Fax: ______________________________

All other notices: Attention: ______________________________
Address: ______________________________
____
____
Fax: ______________________________

9. [Optional Clause for Customer designated to provide under-frequency load shed]

_____MW of load is connected by an under-frequency load shed relay set to trip at ____Hz.

By executing in the space below, the Customer and the Transmission Administrator agree to the foregoing provisions.

Transmission Administrator of Alberta

Per: ______________________________
Name: ______________________________
Title: ______________________________

Per: ______________________________
Name: ______________________________
Title: ______________________________

____
Customer

____
Signature

DEMAND OPPORTUNITY SERVICE
STAGE 1 APPLICATION FOR OPPORTUNITY SERVICE

Stage 1 Application for Demand Opportunity Service (DOS)
Preliminary Assessment

The "Applicant", noted below, requests a preliminary assessment of the availability of Opportunity Service for the use described herein. The Applicant should be familiar with the information on Opportunity Service that appears on the TA's website, including the TA's Business Practices for Demand Opportunity Service and the TA's Term and Conditions of Service. This application does not bind the TA or the Applicant to any contractual arrangement. There is no fee at Stage 1.

IDENTIFICATION OF END USER AND CUSTOMER

End User Name:____

Customer Name:____
(Must be an existing DTS Customer of the TA)

Primary Contact: Name: ______________________ Company: ____________________
(May be the end user or the Customer at Stage 1; however, the Stage 2 application must be made by the TA's Customer.)

Phone Number: _____________ Fax number: ________ Email Address: ____________________

Facility Name: ____
Facility Location: LSD________SEC________TWP_________RGE________MER______
Connected AIES Substation (Name and Number): ______________________________
Point of Delivery (POD): ______________________________________
(*Description of the Point of Delivery)*

TECHNICAL AND COMMERCIAL INFORMATION

The following preliminary information is required.

- Earliest date Opportunity Service is expected to be used:______________________________
- Requested Opportunity Capacity:____________MW (Demand in excess of DTS Contract Capacity)
- Proposed use of the electricity to be obtained under DOS, and anticipated consumption profile:
  Please provide this, labeled "Schedule A".
- *Eligibility:* ***Please read the Commercial Eligibility Criteria of the TA's Business Practices for Demand Opportunity Services (DOS****) and provide a brief explanation, labeled "Schedule B", of how the proposed use of DOS meets the criteria.*
- Referring to the Commercial Eligibility Criteria, which of the following applies? (Check one):

1. Alternative Source of Energy ☐ 2. No Alternative Source of Energy ☐ 3.Generator Maintenance ☐

- What will the applicant do if DOS is not available as requested?____________________________
- For what period of time does the applicant expect the qualifying criteria to persist?______________

CONFIDENTIALITY

Prior to submitting this application, the applicant may request the TA to sign a confidentiality agreement. May the TA disclose information from this application to the interconnecting Transmission Facility Owner, on a need-to-know basis? Yes _______No___________

DEMAND OPPORTUNITY SERVICE
STAGE 1 APPLICATION FOR OPPORTUNITY SERVICE

Stage 1 Application for Demand Opportunity Service (DOS) -- Preliminary Assessment

ATTACHMENTS TO BE PROVIDED BY THE APPLICANT

- Schedule A: Proposed use of the electricity to be obtained under DOS, and anticipated consumption profile
- Schedule B: Explanation of how the proposed use of DOS meets the Commercial Eligibility Criteria

The applicant acknowledges that this document is not a contract between itself and the Transmission Administrator.

Applicant:______________________________________ Date: _________________________________

(The applicant may be the end user or the Customer at Stage 1; however, the Stage 2 applicant must be a DTS Customer of the TA.)

Name: _______________________________________Title: __________________________________

Please complete and send to Transmission Administrator of Alberta.

Mail: 900, 736 – 8 Avenues S.W.
Calgary, Alberta T2P 1H4
Fax: (403) 266-2128

DEMAND OPPORTUNITY SERVICE
STAGE 2 APPLICATION FOR OPPORTUNITY SERVICE

Stage 2 Application for Demand Opportunity Service (DOS) Pre-qualification

---

It is suggested that a Stage 1 Application (preliminary assessment) be made before making this Stage 2 Application. The applicant should be familiar with the information on Opportunity Service that appears on the TA's website, including the TAI's Business Practices for Demand Opportunity Service, the TA's Terms and Conditions of Service, and the Rate Schedules. This application does not bind the TA or the applicant to any contractual terms or conditions. A non-refundable fee of $5000.00 is payable with this application.

IDENTIFICATION OF APPLICANT AND THE END USER

Applicant:____
(Must be an existing DTS Customer of the TA)

End User Name:____
(Need not be a direct Customer of the TA)

Primary Contact: Name: ______________________________ **Company:**_______________________
(May be the end user, at the discretion of the Applicant.)

Phone: ___________________ **Fax:** ________________ **Email:** ______________________________
Facility Name:____
Facility Location: LSD________**SEC**________**TWP**_________**RGE**________**MER**______
Connected AIES Substation (Name and Number): ____
Point of Delivery (POD): ____
(*Description of the Point of Delivery)*
Has a Stage 1 Application been submitted for this proposed use of DOS? Yes_____**No**_____

TECHNICAL AND COMMERCIAL INFORMATION

The following information is required in order for the TA to assess whether the proposed use of DOS complies with the TA's Terms and Conditions of Service and meets the technical and commercial eligibility criteria.

- **Earliest date Opportunity Service is expected to be used:** ______________________________
- **Requested Opportunity Capacity:**___________ MW (Maximum demand in excess of DTS Contract Capacity)
- **Type of Opportunity Service expected to be used:** DOS 7 minute___DOS 1 Hour___DOS Standard___
  (This indication does not preclude the use of other types of Opportunity Service.)
- **Technical Information:** *Please provide the following, labeled* ***"Schedule A".***
  1. Load Characteristic (static, synchronous machine, or induction machine).
  2. Approximate load factor.
  3. Expected power factor.
- **Commercial Information**: ***Please read the Commercial Eligibility Criteria of the TA's Business Practices for Demand Opportunity services (DOS)*** *and* ***provide a comprehensive Business Case, labeled "Schedule B",*** *demonstrating that the proposed use of DOS complies with these criteria. The Business Case must provide enough information to satisfy the TA that that the proposed use of electricity under DOS would not occur at the standard rate schedule (DTS). The Business Case normally pertains to the end user's commercial circumstances, and the end user must be prepared to provide any additional information that the TA reasonably requests.*
- For what period of time does the applicant expect the qualifying criteria to persist?_______________
  (This information does not limit the pre-qualification to this time period.)

DEMAND OPPORTUNITY SERVICE
STAGE 2 APPLICATION FOR OPPORTUNITY SERVICE

Stage 2 Application for Demand Opportunity Service (DOS) – Pre-qualification

CONFIDENTIALITY

Prior to submitting this application, the applicant may request the TA to sign a confidentiality agreement. May the TA disclose information from this application to the interconnecting Transmission Facility Owner, on a need-to-know basis? Yes ________No___________

ATTACHMENTS TO BE PROVIDED BY THE APPLICANT

- Schedule A: Technical information describing the proposed use of DOS
- Schedule B: Business Case demonstrating that the proposed use of DOS meets the Commercial Eligibility Criteria

The Applicant confirms that the contents of this application are true.

Applicant:____ Date:__________________________________
(The applicant must be a DTS Customer of the TA.)

Name: ____Title: __________________________________

Please complete and send to Transmission Administrator of Alberta
Mail: 900, 736 – 8 Avenues S.W.
Calgary, Alberta T2P 1H4
Fax: (403) 266-2128

The Transmission Administrator of Alberta acknowledges that this application was received on the indicated date, together with the prescribed fee.

____ Fee paid: $_______________
(Date)

Signature: ______________________________________

Name: ____Title: __________________________________

TA Internal Use Only

Corporate Finance

Application approved or denied:____________________

Signature:______________________________________Date:__________________________________

Name:____Title:_________________________________

Technical Services Operational Planning

Application approved or denied:____________________

Approved application checklist: Loss Factor (Y/N):______ Pre-qualify List addition (Y/N):______

Signature:______________________________________Date:__________________________________

Name:____Title:_________________________________

SYSTEM ACCESS SERVICE AGREEMENT
DEMAND OPPORTUNITY SERVICE

	OP-224
Transmission Administrator of Alberta *Operating Policy OP-224* **Opportunity Service**	**Issue Date**: 2002-05-01 **Effective Date:** 2002-05-01 **Expiry Date:** Annual **Revision No.:** 1

Appendix A: DOS Request

______________________- ______________________ **Check box if this Request overlaps with a previous DOS Request or DOS Transaction** ☐

Pre-qualification Number **Request number provided by Customer**

The Customer is to complete this document, and fax it to the System Controller to request a DOS Transaction. The Customer must follow up by phoning the SC. (Fax: 403-261-7864) (Ph: 403-233-6420)

Demand Opportunity Service (DOS), according to the terms herein, will be available only after the System Controller approves this DOS Request on behalf of the Transmission Administrator.

Identification

______________________ requests Opportunity Service (subject to confirmation of available
Customer or Customer's Agent

capacity) in accordance with the Pre-qualification granted by the Transmission Administrator, identified by Pre-qualification Number shown above, at ______________________
Description of the Point of Delivery

Terms of Transaction

The requested service is (indicate one):___DOS Standard; ___DOS 7 minutes, ___DOS One hour

The transaction is to begin on: ____________ at ________
Start Date **Start time**

The transaction will be completed on:____________ at ________
End Date **End time**

A DOS Transaction must start and end at the top of an hour, and cannot start within 60 minutes of the time the DOS Request is faxed.
The minimum Term is 8 hours; End Date must occur in the same calendar month as the Start Date.

The requested Capacity is ____________ MW (cannot exceed the Opportunity Capacity)

Applicant's Endorsement

Submitted by: ______________________ on ____________ at ________
Customer's Representative (please print) date time

Signature: ______________________Phone: ____________ Fax: ________
Customer's Representative

Approval/Denial by the System Controller on behalf of the TA.

Submitted by: ______________________ on ____________ at ________
System Controller's Representative (please print) date time

Signature: ______________________
System Controller's Representative

Approved: ☐ Denied: ☐ If denied, please indicate the reason below:

The request does not comply with the SC's information on pre-qualified DOS customers: ☐

The requested Opportunity Capacity is unavailable at the time requested: ☐

System Controller's comments: ______________________

SYSTEM ACCESS SERVICE AGREEMENT
EXPORT SERVICE

The following constitute the terms pursuant to which the Transmission Administrator (TA) shall provide System Access to the Customer: (Defined terms used herein without definition shall have the meanings ascribed thereto in the Terms and Conditions of the Transmission Administrator's Tariff).

1. TYPE OF SERVICE

Service under this contract shall be pursuant to Rate Schedule Export Service (ES).

2. POINT OF EXPORT

❑ British Columbia Intertie ❑ Saskatchewan Intertie

3. EFFECTIVE DATE

____________ __, 2001

4. TERM

_______Days [Months]

5. RATES AND TERMS OF SERVICE

The supply of System Access Service under this Agreement shall be pursuant to the Transmission Administrator's Tariff.

6. NOTICES

Notices sent to the Customer pursuant to this Agreement shall be as follows:

Invoices:	Attention:	______________________________
	Address:	______________________________
		______________________________
		______________________________
	Fax:	______________________________
All other notices:	Attention:	______________________________
	Address:	______________________________
		______________________________
		______________________________
	Fax:	______________________________

By executing in the space below, the Customer and the Transmission Administrator agree to the foregoing provisions.

Transmission Administrator of Alberta

Per: ______________________________
Name: ______________________________
Title: ______________________________

Per: ______________________________
Name: ______________________________
Title: ______________________________

____
Customer

____
Signature

SYSTEM ACCESS SERVICE AGREEMENT
SUPPLY TRANSMISSION SERVICE

The following constitute the terms pursuant to which the Transmission Administrator (TA) shall provide System Access to the Customer. (Defined terms used herein without definition shall have the meanings ascribed thereto in the Terms and Conditions of the Transmission Administrator's Tariff).

1. TYPE OF SERVICE

System Access Service shall be provided pursuant to Rate Schedule Supply Transmission Service (STS).

2. POINT OF INTERCONNECTION WITH THE TRANSMISSION SYSTEM

(a) Point of Supply (POS): The POS shall be [description, e.g. relative to Substation]

(b) Location:
Township__________ Range____________ W_____M

3. CONTRACT CAPACITY

"x" MW

4. COMMISSIONING PERIOD FOR NEW TRANSMISSION FACILITIES, IF ANY

5. EFFECTIVE DATE

____________ __, 2001

6. CUSTOMER CONTRIBUTION

The Customer Contribution charge is $___________.

7. RATES AND TERMS OF SERVICE

The supply of System Access Service pursuant to this Agreement and the Customer's obligations with respect to connection and supply of System Support Services shall be subject to the Transmission Administrator's Tariff, in particular to the Rate Schedule referenced under Paragraph 1.

8. NOTICES:

Notices sent to the Customer pursuant to this Agreement shall be as follows:

Invoices:	Attention:	______________________
	Address:	______________________
		______________________
		______________________
	Fax:	______________________
All other notices:	Attention:	______________________
	Address:	______________________
		______________________
		______________________
	Fax:	______________________

By executing in the space below, the Customer and the Transmission Administrator agree to the foregoing provisions.

Transmission Administrator of Alberta

Per: ______________________
Name: ______________________
Title: ______________________

Per: ______________________
Name: ______________________
Title ______________________

____
Customer

____
Signature

SYSTEM ACCESS SERVICE AGREEMENT
IMPORT SERVICE

The following constitute the terms pursuant to which the Transmission Administrator (TA) shall provide System Access to the Customer. (Defined terms used herein without definition shall have the meanings ascribed thereto in the Terms and Conditions of the Transmission Administrator's Tariff).

1. TYPE OF SERVICE

Service under this contract shall be pursuant to Rate Schedule Import Service (IS).

2. POINT OF INTERCONNECTION WITH THE TRANSMISSION SYSTEM

❑ British Columbia Intertie ❑ Saskatchewan Intertie

3. EFFECTIVE DATE

____________ __, 2001

4. TERM

_______Days

5. RATES AND TERMS OF SERVICE

The supply of System Access Service pursuant to this Agreement shall be subject to the Transmission Administrator's Tariff, in particular to the Rate Schedule referenced under Paragraph 1.

6. NOTICES

Notices sent to the Customer pursuant to this Agreement shall be as follows:

Invoices: Attention: ______________________________
Address: ______________________________
____
____
Fax: ______________________________

All other notices: Attention: ______________________________
Address: ______________________________
____
____
Fax: ______________________________

By executing in the space below, the Customer and the Transmission Administrator agree to the foregoing provisions.

Transmission Administrator of Alberta

Per: ______________________________
Name: ______________________________
Title: ______________________________

Per: ______________________________
Name: ______________________________
Title: ______________________________

____
Customer

____
Signature

Appendix "C"

Construction Commitment Agreement
Proforma

THIS AGREEMENT is effective on ____________ (the "Effective Date")

BETWEEN:

Transmission Administrator of Alberta
A Corporation incorporated under the Business Corporations Act (Alberta)
(hereinafter referred to as the "Transmission Administrator or the "TA")

-and-

(Insert name of party)
A corporation incorporated under the Business Corporations Act (Insert Jurisdiction)
(hereinafter referred to as the "Customer")

INTRODUCTION

1. The Customer has requested System Access Service from the Transmission Administrator and intends to enter into a System Access Service Agreement with the TA. The granting of System Access Service to the Customer will necessitate the construction of new transmission facilities and a commitment by the Transmission Administrator in relation to the expenditure of capital for such construction (the "Proposed Project").

2. Upon execution of this Construction Commitment Agreement, the Transmission Administrator shall begin implementing plans to complete the Proposed Project. Both the Transmission Administrator and its contractors must be held harmless from any negative financial consequences emanating from a decision by the Customer to discontinue, postpone or cancel the Proposed Project.

AGREEMENT

1. The Transmission Administrator and the Customer agree to the following:

   (a) This Agreement shall take effect on the Effective Date and shall remain in effect until execution of the System Access Service Agreement by the Transmission Administrator and the Customer;

   (b) If the Customer terminates the Proposed Project or fails to execute the System Access Service Agreement within 30 days after the completion of the Proposed Project, the Proposed Project shall be deemed to have been cancelled and the Customer shall immediately reimburse the Transmission Administrator for the aggregate amount of costs and expenses, as well as any losses, damages, penalties or other claims it may incur or be subject to howsoever arising from the Proposed Project ("Cancellation Costs"), and which are incurred by the Transmission Administrator or its contractors relating to facilities planning and design, the competitive procurement process (if any), material and right-of-way procurements and construction of the Proposed Project (including without limitation all cancellation penalties and salvage and reclamation costs);

(c) In the event that the Customer terminates the Proposed Project prior to its completion, the Transmission Administrator shall use, and shall cause its contractors to use, reasonable commercial efforts to minimize the amount of the Cancellation Costs to the extent such is within their control;

(d) The Customer shall pay the Cancellation Costs immediately upon demand by the TA. In the event that the Customer fails to pay the Transmission Administrator upon demand, the Transmission Administrator shall be entitled to charge the Customer 1.5% per month interest on late payment of all amounts due to the TA; and

(e) In the event that the Customer has not paid all of the Cancellation Costs to the Transmission Administrator within seven (7) days of receipt by the Customer of the Transmission Administrator's demand therefor, the Transmission Administrator shall be entitled to realize fully upon any and all security provided by the Customer as assurance of payment, which security is attached hereto as Schedule "A".

2. The Transmission Administrator's Tariff form part of this Agreement and in the event of any conflict between the provisions hereof and those of the Transmission Administrator's Tariff, the Transmission Administrator's Tariff shall prevail.

THE CUSTOMER AND THE Transmission Administrator have executed this Agreement on the Effective Date:

Transmission Administrator of Alberta

Per: ______________________________

Per: ______________________________

(INSERT CUSTOMER'S NAME)

Per: ______________________________

Per: ______________________________

Appendix "D"

Metering Equipment Information

1. For each POS Meter:

   (a) Company identification
   (b) Meter type identification
   (c) Meter serial number
   (d) Date meter installed
   (e) Date meter removed
   (f) Number of elements
   (g) Manufacturer
   (h) Model
   (i) Measurement Canada approval
   (j) Past test dates
   (k) Past results (pass/fail information only)
   (l) Planned test dates

2. For each POS meter recorder:

   (a) Record identification
   (b) Recorder type
   (c) Serial number
   (d) Date installed
   (e) Date removed
   (f) Manufacturer
   (g) Model
   (h) Measurement Canada approval
   (i) Past test dates
   (j) Past results (pass/fail information only)
   (k) Planned test dates

3. For each Current Transformer associated with POS metering:

   (a) Company identification
   (b) Transformer type
   (c) Serial number
   (d) Date installed
   (e) Date removed
   (f) Phase location
   (g) Ratio
   (h) Accuracy
   (i) Manufacturer
   (j) Model
   (k) Measurement Canada approval

4. For each Potential Transformer associated with POS metering:

   (a) Company identification
   (b) Transfer type
   (c) Serial number
   (d) Date installed
   (e) Date removed
   (f) Phase location
   (g) Ratio
   (h) Accuracy
   (i) Manufacturer
   (j) Model
   (k) Measurement Canada approval

TRANSMISSION ADMINISTRATOR of ALBERTA

2002 TARIFF

RATE SCHEDULES

TABLE OF CONTENTS

Rate Schedule – Demand Transmission Service (DTS)

Applicable to: Demand Customers

Rate: Charges for the DTS in any one Billing Period shall be the sum of the Interconnection Charge, the Operating Reserve Charge and the Other System Support Services Charge, where:

The Interconnection Charge equals:

$1,365.91/MW/month of Billing Capacity in the Billing Period, plus
$1.83/MWh of Metered Energy during the Billing Period.

Billing Capacity shall be the highest of:
(i) The highest fifteen (15) minute Metered Demand in the Billing Period;
(ii) The Ratchet Level; or
(iii) 90% of the Contract Capacity.

where “Ratchet Level” is defined as the highest of the following:

(i) 90% of the highest Metered Demand in the past 12 months;
(ii) 85% of the highest Metered Demand in the past 24 months;
(iii) 80% of the highest Metered Demand in the past 36 months;
(iv) 75% of the highest Metered Demand in the past 48 months;
(v) 70% of the highest Metered Demand in the past 60 months.

The Operating Reserve Charge equals:

Metered Energy in each hour X 3.75% X Pool Price**.**

The Other System Support Services Charge equals:

$21.18/MW/month of highest Metered Demand in the Billing Period, plus a charge (where Power Factor is less than 90%) of $400/MVA applied to the difference between the highest metered Apparent Power and 111% of the highest Metered Demand during the same Billing Period.

Terms: The rate is separately applicable at each POD.

References to Metered Energy in this Rate Schedule shall mean the amount of Metered Energy attributable to service under this Rate Schedule, which shall be determined in accordance with paragraphs 6.2 and 6.3 of the Terms and Conditions.

The Terms and Conditions form part of this Rate Schedule.

Rate Schedule – Demand Opportunity Service (DOS 7 Minutes)

Applicable to: Qualified Opportunity Service Customers who are recallable within 7 minutes.

Available: For quantities of Metered Energy taken within the Opportunity Capacity for the relevant System Access Service Agreement for Demand Opportunity Service, and when sufficient transmission capacity exists to accommodate such quantity. This service will be available a minimum of one (1) hour for Customers deemed eligible in the pre-qualification process, following the execution of a System Access Service Agreement.

Rate: The charges for service per Billing Period shall be as follows:

(1) The greater of (a) and (b) below:

(a)

(i) \$3.00/MWh of Metered Energy during the Billing Period; plus

(ii) Incremental Losses Charge, calculated as the sum over each transaction hour of the Billing Period of the following:

Metered Energy in hour x location specific loss factor x Pool Price for the hour, where the location specific loss factor is an incremental factor determined by the TA for each Point of Delivery.

(b) A minimum charge equal to:
Opportunity Capacity under this Rate Schedule x number of hours in total transactions in the Billing Period x 75% x \$3.00/MWh.

Plus

(2) Transaction Fee: \$500 per Billing Period.

Terms: The rate is separately applicable at each POD.

A Customers pre-qualified eligibility for Demand Opportunity Service will be available for a maximum of one (1) year. The maximum term for a System Access Services Agreement for Demand Opportunity Service will be one (1) calendar month.

To the extent practicable, service for Opportunity Service Customers taking service under this Rate Schedule shall be recallable in advance of service for Non-Recallable Customers in an Emergency.

In the event that a Customer's service is recalled, Customer shall be required to curtail load by the amount directed by the System Controller, which can be an amount up to the Opportunity Capacity, subject to no requirement on the Customer to curtail to below the DTS Contract Capacity. Curtailment of such amount shall be achieved within seven (7) minutes of receiving a directive from the System Controller.

References to Metered Energy in this Rate Schedule shall mean the amount of Metered Energy attributable to service under this Rate Schedule, which shall be determined in accordance with paragraphs 6.2 and 6.3 of the Terms and Conditions.

The Terms and Conditions form part of this Rate Schedule.

Rate Schedule – Demand Opportunity Service (DOS 1 Hour)

Applicable to: Qualified Opportunity Service Customers who are recallable within one (1) hour.

Available: For quantities of Metered Energy taken within the Opportunity Capacity for the relevant System Access Service Agreement for Demand Opportunity Service, and when sufficient transmission capacity exists to accommodate such quantity. This service will be available a minimum of one (1) hour for Customers deemed eligible in the pre-qualification process, following the execution of a System Access Service Agreement.

Rate: The charges for service per Billing Period shall be as follows:

(1) the greater of (a) and (b) below:

(a)

(i) \$5.00/MWh of Metered Energy during the Billing Period; plus

(ii) Incremental Losses Charge, calculated as the sum over each transaction hour of the Billing Period of the following:

Metered Energy in hour x location specific loss factor x Pool Price for the hour, where the location specific loss factor is an incremental factor determined by the TA for each Point of Delivery.

(b) A minimum charge equal to:

Opportunity Capacity under this Rate Schedule x number of hours in total transactions in the Billing Period x 75% x \$5.00/MWh.

Plus

(2) Transaction Fee: \$500 per Billing Period.

Terms: The rate is separately applicable at each POD.

A Customers pre-qualified eligibility for Demand Opportunity Service will be available for a maximum of one (1) year. The maximum term for a System Access Services Agreement for Demand Opportunity Service will be one (1) calendar month.

To the extent practicable, service for Opportunity Service Customers taking service under this Rate Schedule shall be recallable in advance of service for Non-Recallable Customers in an Emergency.

In the event that a Customer's service is recalled, Customer shall be required to curtail load by the amount directed by the System Controller, which can be an amount up to the Opportunity Capacity, subject to no requirement on the Customer to curtail to below the DTS Contract Capacity. Curtailment of such amount shall be achieved within one (1) hour of receiving a directive from the System Controller.

The amount of Metered Energy attributable to service under this Rate Schedule shall be determined in accordance with paragraphs 6.2 and 6.3 of the Terms and Conditions.

The Terms and Conditions form part of this Rate Schedule.

Rate Schedule – Demand Opportunity Service (DOS Term)

Applicable to: Qualified Opportunity Service Customers

Available: For quantities of Metered Energy taken within the Opportunity Capacity for the relevant System Access Service Agreement for Demand Opportunity Service, and when sufficient transmission capacity exists to accommodate such quantity. This service will be available a minimum of one (1) hour for Customers deemed eligible in the pre-qualification process, following the execution of a System Access Service Agreement.

Rate: The charges for service per Billing Period shall be as follows:

(1) The greater of (a) and (b) below:

(a)

(i) $20.00/MWh of Metered Energy during the Billing Period; plus

(ii) Incremental Losses Charge, calculated as the sum over each transaction hour of the Billing Period of the following:

Metered Energy in hour x location specific loss factor x Pool Price for the hour, where the location specific loss factor is an incremental factor determined by the TA for each Point of Delivery.

(b) A minimum charge equal to:

Opportunity Capacity under this Rate Schedule x number of hours in total transactions in the Billing Period x 75% x $20.00/MWh.

Plus

(2) Transaction Fee: $500 per Billing Period.

Terms: The rate is separately applicable at each POD.

A Customers pre-qualified eligibility for Demand Opportunity Service will be available for a maximum of one (1) year. The maximum term for a System Access Services Agreement for Demand Opportunity Service will be one (1) calendar month.

To the extent practicable, service for Opportunity Service Customers taking service under this Rate Schedule shall be recallable in advance of service for Non-Recallable Customers in an Emergency.

References to Metered Energy in this Rate Schedule shall mean the amount of Metered Energy attributable to service under this Rate Schedule, which shall be determined in accordance with paragraphs 6.2 and 6.3 of the Terms and Conditions.

The Terms and Conditions form part of this Rate Schedule.

Rate Schedule – Export Service (ES)

Applicable to: Customers exporting electric energy from the AIES.

Available: When sufficient transmission capacity exists to accommodate the capacity scheduled for service, and this service shall be available a minimum of twenty-four (24) hours following execution of a System Access Service Agreement for Export Service.

Rate: The charges for service per Billing Period shall be as follows:

(1) The greater of (a) and (b) below:

(a)

(i) \$2.44/MWh of Energy Transfer during the Billing Period; plus

(ii) Incremental Losses Charge, calculated as the sum, over all transaction hours in the Billing Period of the following:

Energy Transfer in hour x location specific loss factor x Pool Price for the hour, where the location specific loss factor is an incremental factor determined by the TA for each Point of Exchange.

(b) A minimum charge, calculated as the sum, over all transactions in the Billing Period, of the following (where capacity scheduled is the hour-ahead scheduled amount for the transaction):

75% x capacity scheduled for Customer for the transaction x hours in the transaction x [\$2.44/MWh + Incremental Losses Charge / Energy Transfer in Billing Period]

Plus

(2) An Operating Reserve charge or other System Support Service charge when, in the opinion of the TA, the transaction requires the procurement of incremental System Support Services and/or Operating Reserve.

Plus

(3) Transaction Fee: \$500 per Billing Period.

Terms: System Access Service provided pursuant to this Rate Schedule is recallable on one (1) hour’s notice. The rate is separately applicable at each Point of Exchange.

The Terms and Conditions form part of this Rate Schedule**.**

Rate Schedule – Demand Under-frequency Load Shedding Credit (UFS)

Purpose: The under-frequency load shedding credits compensate those Demand Customers who are connected to under-frequency load shedding devices and therefore face a higher risk of outage. In order to maintain the integrity of the AIES, the TA shall have the right to require each Demand Customer to maintain a minimum of 50% of that Customer's aggregate load (across all POD's through which the Customer takes System Access Service) connected to an under-frequency load shedding device.

Available to: Customers served under the DTS Rate Schedule who, as directed by the TA, install and activate an under frequency load shed relay satisfactory to the TA.

Rate: The credit is based on the relay setting and UFS Capacity for each relay setting. The TA provides no assurance as to the number or duration of any future outages.

UFS Capacity shall be the peak demand (expressed in MW) for each setting for which the Customer has agreed to be shed as set out in the System Access Service Agreement.

Relay Trip Setting	**Credit ($/kW of UFS Capacity/month)**
59.1 Hz	$0.065
58.9 Hz	$0.060
58.7 Hz	$0.055
58.5 Hz	$0.050
58.3 Hz	$0.045
58.1 Hz	$0.040
58.0 Hz	$0.035

Terms: The Terms and Conditions form part of this Rate Schedule.

Rate Schedule – Customer-Owned Substation Credit (COS)

Purpose: The Customer-Owned Substation Credit is to compensate customers who own their own substation, the cost of which are not included in the Transmission Administrator's revenue requirements.

Available to: DTS Customers who own their transmission station which steps the voltage down from transmission voltage to 25 kV or less, provided that the transmission station is fully operational and none of the costs of the transmission station are included in the Transmission Administrator's revenue requirements.

Rate: $700/MW/month of Billing Capacity in the Billing Period.

Terms: The Terms and Conditions form part of this Rate Schedule. The full Customer contribution pursuant to Article 9 is applicable to Customers eligible for this credit.

Rate Schedule – Supply Transmission Service (STS)

Applicable to: Customers who supply electrical energy to the AIES from within Alberta.

Rate: Charges for STS in any one Billing Period shall be the sum of the Interconnection Charge, the Losses Charge, and the Operating Reserve Charge, where:

The Interconnection Charge equals:

$2.44/MWh of Metered Energy during the Billing Period.

For the purpose of calculating the Interconnection Charge under this STS Rate Schedule Metered Energy shall be measured on a 15-minute interval.

The Losses Charge equals:

Metered Energy in each hour X location specific loss factor X Pool Price

Where "location specific loss factor" is determined by the Transmission Administrator for each Customer.

For the purpose of calculating the Losses Charge under this STS Rate Schedule Metered Energy shall be measured on a 15-minute interval.

Operating Reserves Charge equals:

Metered Energy in each hour X 3.50% X Pool Price.

Regulated Generating Unit Connection Costs:

An additional charge of $368/MW per month for each MW of unit MCR applicable only to regulated generating units, as that term is defined in the Act, as outlined in Appendix B of the rate schedules.

Terms: The rate is separately applicable at each POS.

References to Metered Energy in this Rate Schedule shall mean the amount of Metered Energy attributable to service under this Rate Schedule, which shall be determined in accordance with paragraphs 6.2 and 6.3 of the Terms and Conditions.

The Terms and Conditions form part of this Rate Schedule.

Rate Schedule – Import Service (IS)

Applicable to: Customers importing electric energy into the AIES.

Available: When sufficient transmission capacity exists to accommodate the capacity scheduled for service, and this service shall be available a minimum of twenty-four (24) hours following execution of a System Access Service Agreement for Import Service.

Rate: The charges for service per Billing Period shall be as follows:

(1) The greater of (a) or (b) below:

(a)

(i) \$2.44/MWh of Energy Transfer during the Billing Period;

and

(ii) Incremental Losses Charge, calculated as the sum, over all transaction hours in the Billing Period of the following:

Energy Transfer in hour x location specific loss factor x Pool Price for the hour, where the location specific loss factor is an incremental factor determined by the TA for each Point of Exchange.

(b) A minimum charge, calculated as the sum, over all transactions in the Billing Period, of the following (where capacity scheduled is the hour-ahead scheduled amount for the transaction):

75% x capacity scheduled for Customer for the transaction x hours in the transaction x [\$2.44/MWh + Incremental Losses Charge/Energy Transfer in the Billing Period]

Plus

(2) An Operating Reserve charge or other System Support Service charge when, in the opinion of the TA, the transaction requires the procurement of incremental System Support Services and/or Operating Reserve.

Plus

(3) Transaction Fee: \$500 per Billing Period.

Terms: System Access Service provided pursuant to this Rate Schedule is recallable on one (1) hour's notice.

The rate is separately applicable at each Point of Exchange.

The Terms and Conditions form part of this Rate Schedule.

APPENDIX "A"

RATE RIDERS

Rate Rider A1

Transmission Duplication Avoidance Adjustment

Dow Chemical Canada Inc.

Applicable to:	TransAlta Utilities Corporation / UtiliCorp Canada Corp**.**
Available:	At certain Points of Delivery associated with Dow's facility, as more particularly described in AEUB Decision U98125 (Grid Company of Alberta Inc., Transmission Avoidance Rate; Dow Transmission Bypass) (the "Decision").
Rate:	Adjustment to otherwise applicable rates to be made in each Billing Period pursuant to the Decision.
Terms:	The Terms and Conditions form part of this Rate Rider.

Rate Rider A2

Transmission Duplication Avoidance Adjustment

NOVA Chemical Corporation - Joffre Industrial System

Applicable to: NOVA Chemicals Corporation (NOVA Chemicals)

Available: To NOVA Chemicals' Joffre Industrial System, as designated by the AEUB Order No. HE 9826, for System Access Service to NOVA Chemicals at the 535S transmission station Point of Demand (POD) and Point of Supply (POS).

Rate: For each metering time interval, the Metered Demand and Metered Energy for the POS and POD at the 535S transmission station will be totalized for the purpose of billing under Rate DTS and Rate STS, as described in the Totalization section below. Charges under Rate DTS and Rate STS will be calculated using the totalized Metered Demand and the totalized Metered Energy. The meters to be totalized are 330 Line-1, 330 Line-2, 298L, 297L, 535ST1, and 535ST2.

NOVA Chemicals will make the following payments to the TA:

1. Capital Charge:
   A lump-sum payment of $2,375,000 to be made immediately upon implementation of this rate rider;

2. Incremental Losses Charge:
   Commencing on January 1, 2001, Metered Demand and Metered Energy will be adjusted through the metering balance calculation for the 535S transmission station, using the loss factors in the attached Schedule 1. If the Metered Demand in a metering interval is between two levels in Schedule 1, the applicable loss factor will be calculated by interpolating between the loss factors for the two levels of Metered Demand. If the Metered Demand in a metering interval is less than 10 MW, including 0 MW, the incremental loss will be deemed to be 0.14 MW. The meters to be compensated in the metering balancing calculation are on 298L, 297L, 535ST1, and 535ST2.

3. Other Expenses Charge:
   For each Billing Period commencing on January 1, 2001, an amount equal to the "Annual Payment" in the attached Schedule 2 for the applicable year, divided by 12.

Terms: All terms in the TA's 23 June Application for a Duplication Avoidance Tariff for NOVA Chemicals Corporation Joffre Industrial System will be applicable.

Metering and Totalizing[1]

If NOVA Chemicals were to build the Duplicate Facilities, the 535S transmission station would be a Point of Supply for metering when the Joffre Site power generation exceeds the load requirements. Likewise, it would be a Point of Demand when the Joffre Site generation does not meet the load requirements. The Duplication Avoidance Tariff will simulate this result by deeming the separate Point of Demand and Point of Supply at the 535S transmission station to be a single Point of Exchange for the purpose of totalizing Metered Demand and Metered Energy in applying the TA's Rate DTS and Rate STS.

During the Term of the Duplication Avoidance Tariff, the TA would totalize the metered data at the 535S transmission station for the load of NOVA Chemicals' Existing Facilities and the generation from its Cogeneration Facility. The totalized metered data would also include a debit to NOVA Chemicals to account for the deemed duplicate transformer losses. This would ensure that payments by NOVA Chemicals to the TA under Rate DTS and Rate STS are equivalent to the costs NOVA Chemicals would have incurred had they built the Duplicate Facilities.

The amount of load of the Existing Facilities included in the totalizing calculation would be limited to the deemed capacity of the duplicate transformer in NOVA Chemicals' Duplicate Facilities design, which is 80MVA. If the Metered Demand at the 535S transmission station for the Existing Facilities exceed this deemed capacity of 80 MVA, additional costs of upgrading the deemed duplicate transformer would be estimated and invoiced to NOVA Chemicals.

An example of the totalizing calculation follows.

Example of Totalizing[2]

The following is an example of the totalizing calculation for Metered Demand and Metered Energy for two different metering time intervals.

[1] Application, Section 2.5: Terms for the Duplication Avoidance Tariff; Section 2.5.1: Metering and Totalizing
[2] Application, Appendix C: Example of Totalizing

	Time Interval 1	**Time Interval 2**
535S Point of Demand (A)	+65 MW	+130 MW
535S Point of Supply (B) (Cogeneration Facility)	-365 MW	0 MW
Totalized Metered Demand and Energy (C)	-300 MW	+130 MW

In Time Interval 1, under the Duplication Avoidance Tariff, NOVA Chemicals' demand requirement is 65 MW at the 535S transmission station. At the same time, NOVA Chemicals' Cogeneration Facility is delivering 365 MW of power to the AIES at the 535S transmission station. If NOVA Chemicals built the Duplicate Facilities, the Metered Energy delivered from the AIES for NOVA Chemicals' load requirement at point A would be zero MW, and the Metered Energy received by the AIES from the generator output at point B would be 300 MW. This energy balance is simulated by the proposed totalizing procedure. Combining the Point of Demand (A) and Point of Supply (B) produces a totalized Metered Demand of -300MW, where the negative sign signifies a net energy receipt by the AIES.

In Time Interval 2, the Cogeneration Facility is not operating, supplying zero MW of power, and NOVA Chemicals' load remains at 65 MW for the Existing Facilities and 65 MW for the new facilities. The result is a net load of +130 MW for that time interval, where the positive sign signifies a net energy delivery from the AIES.

Rider A2 Schedule 1
Incremental Loss Factors

Metered Demand of Existing Facilities (MW)	**Loss Factor (% of Metered Demand of Existing Facilities)**
> 0 ≤ 10	1.41 %
> 10 ≤ 20	0.76 %
> 20 ≤ 30	0.57 %
> 30 ≤ 40	0.49 %
> 40 ≤ 50	0.46 %
> 50 ≤ 60	0.45 %
> 60 ≤ 70	0.45 %
> 70 ≤ 80	0.47 %

Rider A2 Schedule 2
Other Expenses Charge

12 Month Period	Monthly Payment
Jan. 1, 2001 – Dec. 31, 2001	$ 2,142
Jan. 1, 2002 – Dec. 31, 2002	$ 2,107
Jan. 1, 2003 – Dec. 31, 2003	$ 2,179
Jan. 1, 2004 – Dec. 31, 2004	$ 2,152
Jan. 1, 2005 – Dec. 31, 2005	$ 2,234
Jan. 1, 2006 – Dec. 31, 2006	$ 4,013
Jan. 1, 2007 – Dec. 31, 2007	$ 2,162
Jan. 1, 2008 – Dec. 31, 2008	$ 3,283
Jan. 1, 2009 – Dec. 31, 2009	$ 2,204
Jan. 1, 2010 – Dec. 31, 2010	$ 3,219
Jan. 1, 2011 – Dec. 31, 2011	$ 2,131
Jan. 1, 2012 – Dec. 31, 2012	$ 5,305
Jan. 1, 2013 – Dec. 31, 2013	$ 2,185
Jan. 1, 2014 – Dec. 31, 2014	$ 2,141
Jan. 1, 2015 – Dec. 31, 2015	$ 11,723
Jan. 1, 2016 – Dec. 31, 2016	$ 4,343
Jan. 1, 2017 – Dec. 31, 2017	$ 2,151
Jan. 1, 2018 – Dec. 31, 2018	$ 4,745
Jan. 1, 2019 – Dec. 31, 2019	$ 2,211
Jan. 1, 2020 – Dec. 31, 2020	$ 6,835
Jan. 1, 2021 – Dec. 31, 2021	$ 2,264
Jan. 1, 2022 – Dec. 31, 2022	$ 2,225
Jan. 1, 2023 – Dec. 31, 2023	$ 2,172
Jan. 1, 2024 – Dec. 31, 2024	$ 7,790
Jan. 1, 2025 – Dec. 31, 2025	$ 2,417
Jan. 1, 2026 – Dec. 31, 2026	$ 2,184
Jan. 1, 2027 – Dec. 31, 2027	$ 2,300
Jan. 1, 2028 – Dec. 31, 2028	$ 2,256
Jan. 1, 2029 – Dec. 31, 2029	$ 2,197
Jan. 1, 2030 – Dec. 31, 2030	$ 36,105
Jan. 1, 2031 – Dec. 31, 2031	$ 2,273
Jan. 1, 2032 – Dec. 31, 2032	$ 5,154
Jan. 1, 2033 – Dec. 31, 2033	$ 2,340
Jan. 1, 2034 – Dec. 31, 2034	$ 2,291
Jan. 1, 2035 – Dec. 31, 2035	$ 2,440
Jan. 1, 2036 – Dec. 31, 2036	$ 7,595
Jan. 1, 2037 – Dec. 31, 2037	$ 2,310
Jan. 1, 2038 – Dec. 31, 2038	$ 2,239
Jan. 1, 2039 – Dec. 31, 2039	$ 2,386
Jan. 1, 2040 – Dec. 31, 2040	$ 4,518

Rate Rider A
Transmission Duplication Avoidance Rate A3

Shell Canada Corporation-Scotford Industrial System

Applicable to: Shell Canada Limited (Shell Canada)

Available: To Shell Canada's Scotford Industrial System, as designated by AEUB Order No. U2000-109 for System Access Service to Shell Canada at the 409S transmission station Point of Delivery (POD) and Point of Supply (POS).

Rate: For each metering time interval, the Metered Demand and Energy for each POS and POD (409ST1, 409ST2, 337S and 746L feeders) around the 409S transmission station will be synchronized, totalized and adjusted to measure electricity at the 138 kV bus for the purpose of billing under the Transmission Tariff. Charges under the Transmission Tariff will be calculated using the totalized Metered Demand and Energy.

Shell Canada will make the following payments to the TA:

1. Capital Charge:
   A payment of $2,907,800 is due immediately upon implementation of this rate rider.

2. Incremental Losses Charge:
   Commencing on the effective date of this rate rider, Metered Demand and Metered Energy will be adjusted through the metering balancing calculation for the 409S transmission station, using the loss factors in the attached Schedule 1. If the Metered Demand in a metering interval is between two levels in Schedule 1, the applicable loss factor will be calculated by interpolating between the loss factors for the two levels of Metered Demand. If the Metered Demand in a metering interval is less than 10 MW, including 0 MW, the incremental loss will be deemed to be 0.083 MW. The meters to be compensated in the metering balancing calculation are on 409ST1, 409ST2, 337S and 746L.

3. Other Expenses Charge:
   The Other Expenses Charge is shown in the attached Schedule 2.

   Shell Canada will receive a Customer-Owned Transmission Station Credit in respect of the Duplicate Facilities as is provided to other DTS customers of the TA who provide their own Transmission Station, pending the decision of the Board on the TA's 2002 tariff application.

Terms All Terms and Conditions in the Transmission Administrator's Tariff apply in addition to the terms in this Application for a Duplication Avoidance Tariff for Shell Canada's Scotford Industrial System. If either the TA or Shell Canada were to terminate the Duplication Avoidance Tariff at a future date, Shell Canada would receive a partial refund of the lump sum Capital Charge payment. The amount of the partial refund would be the deemed remaining undepreciated dollar amount of the avoided Duplicate Facilities, in the year that the TA or Shell Canada gives notice to terminate the Duplication Avoidance Tariff. The undepreciated dollar value would be calculated based on the lump sum Capital Charge payment using a straight-line depreciation over the first 24 years of the Term of the Duplication Avoidance Tariff. At the end of 24 years, the undepreciated value would be zero. The termination notice period, for both the TA and Shell Canada, will be 24 months.

Metering & Totalizing

Totalization should proceed on the basis of economic indifference to Shell Canada between the DAT and the construction of Duplicate Facilities and a net positive benefit to other transmission customers. These principles are met by the terms proposed for the Duplication Avoidance Tariff.

There is no direct relationship between the size of 409S (sized for a prior, smaller load-only Scotford site) and the larger scale operations now reflected in the industrial system. The Duplication Avoidance Tariff for 409S is the most advantageous arrangement for the TA compared to construction of Duplicate Facilities.

If Shell Canada were to build the Duplicate Facilities, the 409S transmission station would be a Point of Supply when the Scotford Site power generation exceeds the load requirements. Likewise, it would be a Point of Delivery when the Scotford Site generation does not meet the load requirements. The Duplication Avoidance Tariff will simulate this result by deeming the separate Point of Delivery and Point of Supply at the 409S transmission station to be a single Point of Exchange for the purpose of totalizing Metered Demand and Metered Energy.

During the Term of the Duplication Avoidance Tariff, the TA would totalize the metered data at the 409S transmission station for the load of Shell Canada's Load Facilities and the generation from its Cogeneration Facility. This would ensure that payments by Shell Canada to the TA under the TA's Tariff are equivalent to the costs that Shell Canada would have incurred had they built the Duplicate Facilities.

The level of load of the Load Facilities included in the totalization calculation would be limited to the deemed capacity of the Duplicate Facilities in Shell Canada's Duplicate Facilities design. Given that the capacity of the Duplicate Facilities would be identical to that of the 409S transmission station, if the transformer requires upgrading in order to serve additional load from the Load Facilities, Shell Canada will be responsible for the cost of the upgrade.

Example of Totalizing

The following is an example of the totalizing calculation for Metered Demand and Metered Energy for two different metering time intervals.

	Time Interval 1	Time Interval 2
409S Point of Demand (A)	+60 MW	+60 MW
409S Point of Supply/ Point of Demand (B)	-70 MW	+20 MW
Totalized Metered Demand and Energy (C)	-10 MW	+80 MW

In Time Interval 1, under the Duplication Avoidance Tariff, Shell Canada's load requirement is 60 MW from the 409S transmission station. At the same time, Shell Canada's Cogeneration Facility is delivering a net supply of 70 MW to the AIES at the 409S transmission station. This is net of load directly served from the Cogeneration Facility downstream of the 409S. If Shell Canada built the Duplicate Facilities, the level of energy delivered from Shell Canada to the AIES would be 10 MW. This energy balance is simulated through the proposed totalizing procedure. Combining the Point of Demand (A) and Point of Supply (B) produces a totalized Metered Demand of –10 MW, where the negative sign signifies a net energy receipt by the AEIS.

In time Interval 2, the load served from Point of Demand (A) remains at 60 MW but there is a reduced supply of energy from the Cogeneration Facility. Due to load requirements directly served from the Cogeneration Facility (net of partial load shedding), energy flows at (B) are reversed, resulting in 20 MW of energy delivered from the AIES to Shell Canada. Thus (B) is also a Point of Demand. If Shell Canada built the Duplicate Facilities, the level of energy delivered from the AIES to Shell Canada at (A) and (B) would be 80 MW. Through the proposed totalizing procedure the totalized Metered Demand would be +80 MW, where the positive sign signifies a net energy delivery from the AEIS to Shell Canada.

Rider A3 Schedule 1
Incremental Loss Factors

Metered Demand of Load Facilities (MW)	Loss Factor (% of Metered Demand of Load Facilities)
> 0 ≤ 10	0.84%
> 10 ≤ 20	0.46%
> 20 ≤ 30	0.35%
> 30 ≤ 40	0.31%
> 40 ≤ 50	0.30%
> 50 ≤ 60	0.30%
> 60 ≤ 70	0.30%
> 70 ≤ 80	0.32%
> 80 ≤ 90	0.33%
> 90 ≤ 100	0.35%

Rider A3 Schedule 2
Other Expenses Charge

12 Month Period	Monthly Payment
Jan. 1, 2002 – Dec. 31, 2002	$ 1,779
Jan. 1, 2003 – Dec. 31, 2003	$ 1,673
Jan. 1, 2004 – Dec. 31, 2004	$ 1,723
Jan. 1, 2005 – Dec. 31, 2005	$ 1,669
Jan. 1, 2006 – Dec. 31, 2006	$ 1,820
Jan. 1, 2007 – Dec. 31, 2007	$ 3,405
Jan. 1, 2008 – Dec. 31, 2008	$ 1,655
Jan. 1, 2009 – Dec. 31, 2009	$ 4,055
Jan. 1, 2010 – Dec. 31, 2010	$ 1,701
Jan. 1, 2011 – Dec. 31, 2011	$ 4,264
Jan. 1, 2012 – Dec. 31, 2012	$ 1,626
Jan. 1, 2013 – Dec. 31, 2013	$ 4,954
Jan. 1, 2014 – Dec. 31, 2014	$ 1,605
Jan. 1, 2015 – Dec. 31, 2015	$ 1,637
Jan. 1, 2016 – Dec. 31, 2016	$ 16,504
Jan. 1, 2017 – Dec. 31, 2017	$ 5,665
Jan. 1, 2018 – Dec. 31, 2018	$ 1,737
Jan. 1, 2019 – Dec. 31, 2019	$ 4,222
Jan. 1, 2020 – Dec. 31, 2020	$ 1,807
Jan. 1, 2021 – Dec. 31, 2021	$ 15,946
Jan. 1, 2022 – Dec. 31, 2022	$ 1,954
Jan. 1, 2023 – Dec. 31, 2023	$ 1,918
Jan. 1, 2024 – Dec. 31, 2024	$ 1,956
Jan. 1, 2025 – Dec. 31, 2025	$ 9,933
Jan. 1, 2026 – Dec. 31, 2026	$ 2,265
Jan. 1, 2027 – Dec. 31, 2027	$ 2,076
Jan. 1, 2028 – Dec. 31, 2028	$ 2,201
Jan. 1, 2029 – Dec. 31, 2029	$ 2,160
Jan. 1, 2030 – Dec. 31, 2030	$ 2,203
Jan. 1, 2031 – Dec. 31, 2031	$ 59,074
Jan. 1, 2032 – Dec. 31, 2032	$ 2,292
Jan. 1, 2033 – Dec. 31, 2033	$ 7,777
Jan. 1, 2034 – Dec. 31, 2034	$ 2,479
Jan. 1, 2035 – Dec. 31, 2035	$ 2,432
Jan. 1, 2036 – Dec. 31, 2036	$ 2,761

Rate Rider A4

Transmission Duplication Avoidance Adjustment

Imperial Oil Resources Limited – Cold Lake Industrial System

Applicable to: Imperial Oil Resources Limited (Imperial Oil)

Available: To Imperial Oil's Cold Lake Industrial System, as designated by AEUB Order No. HE 9901, plus any expansions to this Industrial System as may be approved by the AEUB, for System Access Service to Imperial Oil at the 715S transmission station Point of Demand and Point of Supply and the 837S transmission station Point of Demand.

Rate: For each metering time interval, the Metered Demand and Metered Energy for the POS and PODs, at the 837S and 715S transmission stations, will be totalized for the purpose of billing under Rate DTS and Rate STS, as described in the TA's June 22, 2001 Application for a Duplication Avoidance Tariff for Imperial Oil Resources Limited Cold Lake Site. Charges under Rate DTS and Rate STS will be calculated using the totalized Metered Demand and the totalized Metered Energy. The meters at the 837S transmission station to be totalized are 5L408, 5L409, and 5L410. The meters at the 715S transmission station to be totalized are 5L242, 5L335, 5L367, 5L395, and the future metering point for Imperial Oil's Cogeneration Facility.

Imperial Oil shall make the following payments to the TA:

1. Capital Charge:
   A lump-sum payment of $5,968,800 to be made immediately upon implementation of this rate rider;

2. Incremental Losses Charge:
   For each billing period, commencing on the effective date of this rate rider, a payment equal to the totalized Metered Energy multiplied by the applicable loss factor and multiplied by the Pool Price, calculated on an hourly basis. The applicable loss factor for each hour will be the loss factor in the attached Schedule 1 that corresponds with the totalized Metered Energy for the hour; and

3. Other Expenses Charge:
   For each Billing Period, commencing on the effective date of this rate rider, an amount equal to the "Monthly Payment" in the attached Schedule 2 for the applicable year.

Terms All terms in the TA's June 22, 2001 Application for a Duplication Avoidance Tariff for Imperial Oil Resources Limited Cold Lake Site will be applicable.

Metering and Totalizing

If Imperial Oil were to build the Duplicate Facilities, the Leming Lake transmission station would be a Point of Supply when the Cold Lake Site power generation exceeds the load requirements, and a Point of Demand when the generation does not meet the load requirements. The Duplication Avoidance Tariff will simulate these conditions by deeming the Points of Demand at the Mahihkan and Leming Lake transmission stations, and the Point of Supply at the Leming Lake transmission station, to be a single Point of Connection for the purpose of totalizing Metered Demand and Metered Energy in applying Rates DTS and STS.

During operation of the Duplication Avoidance Tariff, the TA will totalize the metered data for Imperial Oil's load and generation served from the Mahihkan and Leming Lake transmission stations. This will ensure that payments by Imperial Oil to the TA under Rate DTS and Rate STS are equivalent to the costs Imperial Oil would have incurred for the Duplicate Facilities.

The amount of load included in the totalizing calculation will be limited to 115 MW, which is the maximum amount of load that the Duplicate Facilities would be able to serve, based on the deemed capacity of the duplicate transmission line in Imperial Oil's design. If the combined Metered Demand at the Mahihkan and Leming Lake transmission stations for the Load Facilities exceeds the 115 MW limit, the costs that would have been required to service the additional load under the Duplicate Facilities alternative will be estimated and invoiced to Imperial Oil.

Example of Totalizing

The following is an example of the totalizing calculation for Metered Demand and Metered Energy for two different metering time intervals.

	Time Interval 1	Time Interval 2
Point of Demand (A)(Mahihkan)	+45 MW	+45 MW
Point of Supply / Point of Demand (B)(Leming Lake)	-100 MW	+60 MW
Totalized Metered Demand and Energy (C)	-55 MW	+105 MW

In Time Interval 1, under the Duplication Avoidance Tariff, Imperial Oil's demand requirement is 45 MW at each of the Mahihkan and Leming Lake transmission stations. At the same time, Imperial Oil's Cogeneration Facility is producing 160 MW of power, of which 15 MW is used to directly serve other load requirements. The net delivery to the AIES is 145 MW at the Leming Lake transmission station. If Imperial Oil built the Duplicate Facilities, the Metered Energy delivered by the AIES to Imperial Oil's load requirement at the Mahihkan transmission station would be zero, and the Metered Energy received by the AIES from the generator output at the Leming Lake transmission station would be 55 MW (160 MW of generation minus 105 MW of load). This energy balance is simulated by the proposed totalizing procedure. Combining the Point of Demand (A) and Point of Supply (B) produces an adjusted Metered Demand of -55 MW, where the negative sign signifies a net energy receipt by the AIES.

In Time Interval 2, the Cogeneration Facility is not operating and Imperial Oil's load remains at 105 MW (45 MW at the Mahihkan station, and 45 MW plus 15 MW at Leming Lake station). The result is a net load of +105 MW for that time interval, where the positive sign signifies a net energy delivery from the AIES.

Rider A4 Schedule 1
Incremental Loss Factors

Metered Demand of Load Facilities (MW)	Loss Factor (% of Metered Demand of Load Facilities)
> 0 ≤ 10	1.88%
> 10 ≤ 20	1.31%
> 20 ≤ 30	0.64%
> 30 ≤ 40	0.54%
> 40 ≤ 50	0.60%
> 50 ≤ 60	0.73%
> 60 ≤ 70	0.90%
> 70 ≤ 80	1.09%
> 80 ≤ 90	1.29%
> 90 ≤ 100	1.51%
> 100 ≤ 110	1.72%
> 110 ≤ 115	1.91%

Rider A4 Schedule 2
Other Expenses Charge

12 Month Period	Monthly Payment
Jan. 1, 2003 – Dec. 31, 2003	$ 4,223
Jan. 1, 2004 – Dec. 31, 2004	$ 6,323
Jan. 1, 2005 – Dec. 31, 2005	$ 4,286
Jan. 1, 2006 – Dec. 31, 2006	$ 4,225
Jan. 1, 2007 – Dec. 31, 2007	$ 5,791
Jan. 1, 2008 – Dec. 31, 2008	$ 7,651
Jan. 1, 2009 – Dec. 31, 2009	$ 5,189
Jan. 1, 2010 – Dec. 31, 2010	$ 6,835
Jan. 1, 2011 – Dec. 31, 2011	$ 4,500
Jan. 1, 2012 – Dec. 31, 2012	$ 8,367
Jan. 1, 2013 – Dec. 31, 2013	$ 4,457
Jan. 1, 2014 – Dec. 31, 2014	$ 10,648
Jan. 1, 2015 – Dec. 31, 2015	$ 5,059
Jan. 1, 2016 – Dec. 31, 2016	$ 5,430
Jan. 1, 2017 – Dec. 31, 2017	$ 19,466
Jan. 1, 2018 – Dec. 31, 2018	$ 10,660
Jan. 1, 2019 – Dec. 31, 2019	$ 4,765
Jan. 1, 2020 – Dec. 31, 2020	$ 10,594
Jan. 1, 2021 – Dec. 31, 2021	$ 5,565
Jan. 1, 2022 – Dec. 31, 2022	$ 29,055
Jan. 1, 2023 – Dec. 31, 2023	$ 5,799
Jan. 1, 2024 – Dec. 31, 2024	$ 5,905
Jan. 1, 2025 – Dec. 31, 2025	$ 5,366
Jan. 1, 2026 – Dec. 31, 2026	$ 19,095
Jan. 1, 2027 – Dec. 31, 2027	$ 6,492
Jan. 1, 2028 – Dec. 31, 2028	$ 5,695
Jan. 1, 2029 – Dec. 31, 2029	$ 5,962
Jan. 1, 2030 – Dec. 31, 2030	$ 7,811
Jan. 1, 2031 – Dec. 31, 2031	$ 6,043

Rate Rider B

Working Capital Deficiency / Surplus Rider

Purpose: The Working Capital Deficiency/Surplus Rider is to recover unexpected increases in the TA's working capital deficiency or to refund unexpected surplus of working capital.

Applicable to: Customers receiving service under the following Rate Schedules:

DTS
STS

Effective: The rider will be invoked for the current Billing Period when, on the last Business Day of the current Billing Period:

- the TA's working capital balance either exceeds or falls short of the TA's annual average forecast by an amount equal to or greater than $7.0 Million.

Rate: A percentage increase or decrease, that when invoked will restore the TA's working capital deficiency to the TA's annual average forecast, applied to charges under the rate schedules listed above in the current Billing Period.

Terms: The Terms and Conditions form part of this Rate Schedule.

Rate Rider C

Deferral Account Adjustment Rider

Purpose: To recover or refund all accumulated deferral account balances.

Applicable to: Customers receiving service under the following Rate Schedules:

DTS
STS

Effective: The rider is effective for all billing periods.

Rate: A percentage increase or decrease designed to restore the deferral account balances to zero over the following calendar quarter or such longer period as determined by the TA to minimize rate impact.

Terms: The Terms and Conditions form part of this Rate Schedule.

APPENDIX B

Maximum Continuous Rating Values for Regulated Generation Units under Rate STS

GENERATING UNIT	UNIT MCR(MW)	POINT OF SUPPLY TOTAL
APL Battle River 1		
APL Battle River 2		
APL Battle River 3	147.3	
APL Battle River 4	147.3	
APL Battle River 5	368.2	
APL Battle River		662.8
APL H. R. Milner	144.3	144.3
APL Rainbow 1	25.9	
APL Rainbow 2	39.8	
APL Rainbow 3	21.4	
APL Rainbow		87.1
APL Sheerness 1	189.1 **APL**/189.1 **TAU**	
APL Sheerness 2	189.1 **APL**/189.1 **TAU**	
APL Sheerness		756.4
EPI Clover Bar 1	157.2	
EPI Clover Bar 2	157.2	
EPI Clover Bar 3	157.2	
EPI Clover Bar 4	157.2	
EPI Clover Bar		628.8
EPI Genesee 1	384.1	
EPI Genesee 2	384.1	
EPI Genesee		768.2
EPI Rossdale 8	66.7	
EPI Rossdale 9	70.6	
EPI Rossdale 10	70.6	
EPI Rossdale		207.9
TAU Hydro	791.4	791.4
TAU Sundance 1	278.6	
TAU Sundance 2	278.6	
TAU Sundance 3	353.2	
TAU Sundance 4	353.2	
TAU Sundance 5	353.2	
TAU Sundance 6	364.2	
TAU Sundance		1981.0
TAU Wabamun 1	63.7	
TAU Wabamun 2	63.7	
TAU Wabamun 3	139.3	
TAU Wabamun 4	278.6	
TAU Wabamun		545.3
TAU Keephills 1	381.1	
TAU Keephills 2	381.1	
TAU Keephills		762.2
TOTAL		**7335.4**