

Q. (Re: p.11-13 – Transformer Losses)

Who owns the four transformers at the ACI-Stephenville mill? Why should all customers pay for the losses in these transformers?

With respect to specifically assigned transformers at other customer supply points, why should all customers pay for the losses in these transformers?

Please show where losses for specifically assigned or customer owned transformers are absorbed by Hydro (p.12, lines 7-8).

Please provide the New Brunswick, Nova Scotia, Hydro-Quebec and Manitoba Hydro rate schedule for different voltage levels and associated transformer loss adjustments (p.13, lines 3-8). Are there differences for customer owned versus utility owned transformers?

- A.
- (a) ACI owns the four transformers at the ACI-Stephenville mill. ACI's position on transformer losses is to maintain the status quo. ACI-Stephenville is satisfied with the previous contract and is in agreement with Hydro's statement in a letter dated February 6, 2001 from Mr. Derek W. Osmond to Mr. Jay Backus which states "In past discussions with our industrial customers, we have been informed that, for the most part, there was a good measure of satisfaction with the previous contractual terms." See letter Attachment 1 to this Answer, fourth paragraph, first sentence.
 - (b) See response to NLH-9 (a).
 - (c) The situation as we know it is that ACI-Stephenville do not pay for losses on their four 230 kv transformers, North Atlantic Refining Ltd. do not pay for losses on their two 230 kv transformers and ACI-Grand Falls do not pay for losses on transformers T1 & T2.

(d) Hydro Quebec

The Hydro Quebec website contains the document entitled “Electricity Rates Bylaw Effective May 1, 1998”. The equivalent of Hydro’s industrial firm rate is Hydro Quebec’s Rate L – General Rates for large Power. Sections 105, 303 and 304 are attached and show the demand discount for owning your own equipment plus a further discount to account for transformer losses. Section 303 states that the discount for a voltage level of 230 kV is \$2.934/kW per month and section 304 grants a further discount of 13.20¢/kW per month when metering is on the high voltage side of the transformer. An extract from this document is attached is Attachment 2.

New Brunswick

As stated in Melvin L. Dean’s evidence page 13, lines 3 to 5 “New Brunswick Power seems to limit transformation charges to those circumstances where power is supplied at primary voltages between 4 kv and 25 kv. In that case, the demand and energy rates are increased by 1.5%”. An electronic copy of an NP generic Industrial Contract was obtained and the following was the wording in the contract pertaining to this subject:

“Losses Charge: At the discretion of NB Power, electricity may be supplied at a primary service voltage between 4 kV and 25 kV. In such cases, the monthly demand and energy consumption will be increased by 1 1/2% to compensate for transformation losses.

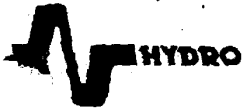
Transformation Charge: When a Customer is provided service at voltages less than 69 kV, the Customer will also be charged an "equivalent kVA rental" charge equal to 1 2/3% per month of the costs of the equivalent substation kVA utilized by the Customer's electrical load. The equivalent kVA charge is the Customer's kVA demand multiplied by 30¢ per kVA per month (94¢ per kVA per month effective October 1, 2001)."

Manitoba

Manitoba Hydro web site shows that the higher the voltage, the lower the demand rate. The text is Attachment 3 to this Answer.

Nova Scotia

Industrial contacts and Nova Scotia Power confirm that there is a reduction for customer owned transformers and there is a 1.75% reduction in meter readings when the metering is done on the high voltage side of the bulk power transformer. The pertinent parts of an e-mail from Nova Scotia Power are annexed as Attachment 4.



NEWFOUNDLAND AND LABRADOR HYDRO
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February 6, 2001

Abitibi-Consolidated Inc. (Stephenville Div.)
P.O. Box 40
Stephenville, NF
A2N 2Y8

Attention: Mr. Jay Backus - General Manager - Stephenville Division

Dear Mr. Backus:

Re: Industrial Power Contracts

As you may be aware, Hydro is preparing to file an application for rate changes for all of its customer classes for 2002. The Public Utilities Board (PUB) has required that this filing occur not later than May 1, 2001. The hearing date will be set by the PUB at a pre-hearing conference we expect to take place later in May. It is anticipated that the actual hearing will take place in the summer or early autumn.

Through changes in the relevant legislation, the PUB has acquired jurisdiction to set rates and terms of service for Hydro's Island Industrial Customer class. The upcoming hearing will be the first occasion for the PUB to consider these matters. In preparation for the rate application and public hearing, Hydro has drafted a standard form industrial contract, a copy of which is enclosed. PUB approval will be required before the contract attains legal effect. Of course, PUB approval will also be required for the various demand and energy rates and for the method to calculate specifically assigned charges.

We feel that Hydro has always enjoyed cordial relationships with its industrial customers and we have negotiated mutually acceptable terms with each of them. In that spirit, we are seeking your input into the contents of the standard form contract to be filed with the PUB in the upcoming hearing. The goal will be to achieve standardized contract documents that are fair and acceptable to all concerned. It is expected that if Hydro and its industrial customers can agree on a standard contract, then it will be acceptable to the PUB also. The alternative is for Hydro to unilaterally file and seek approval of an electrical service contract.

In past discussions with our industrial customers, we have been informed that, for the most part, there was a good measure of satisfaction with the previous contractual terms. Therefore, we have been cautious to make changes in only those cases where we believed improvements were achievable or where standardization amongst customer contracts required them.



Please note that this contract is in two forms, one for the two paper mill customers with their own hydraulic generation resources, and another for the customers that purchase all of their electrical power and energy from Hydro. Having said that, these contracts are, as they are required to be under public utility regulatory law, identical in essentially all aspects. The only material differences pertain to the power that Hydro will make available to the Corner Brook and Grand Falls paper mills when temporary outages are experienced in their respective generation and transmission systems.

We are optimistic that a consensus can be reached as to the standard form contract. However, due to our PUB filing deadline and schedule, and the logistical problems that can arise if discussions are required with all industrial customers, we must insist that any comments you might have are received by us before February 16, 2001. After comments are received, and if a face to meeting is required, Geoff Young of our Legal Department will be in touch with you to co-ordinate that process.

We look forward to receiving your response to the enclosed contract at your earliest possible convenience. Please contact Geoff Young to discuss any comments you may have. Geoff's direct line is (709)737-1277, his fax number is (709)737-1782 or, you can reach him at his e-mail address: gyoung@nlh.nf.ca.

Yours truly,

A handwritten signature in black ink that reads "D. W. Osmond". The signature is written in a cursive style and is positioned above a horizontal line that extends to the right.

Derek W. Osmond
Vice-President and
Chief Financial Officer

Conditions for adjustment of summer and/or winter reference energy and summer and/or winter reference power 103
If, during a continuous period of at least one hour,

- electricity was not supplied to the customer because Hydro-Québec interrupted the supply of electricity; or
- the customer was prevented from using electricity, wholly or in part, at the request of Hydro-Québec; or
- the customer was prevented from using electricity, wholly or in part, as a result of war, rebellion, riot, serious epidemic, fire or any other case of force majeure, excluding strikes or lockouts on the customer's premises.

The summer and/or winter reference energy during that event is adjusted to equal the real energy, solely for that consumption period.

The summer and/or winter reference power associated with such summer and/or winter reference energy corresponds to the maximum power demand during the event.

General Rates for Large Power

Subdivision 1 - Rate L

Application 104
General Rate L applies to an annual contract whose minimum billing demand is 5,000 kilowatts or more.

Structure of Rate L 105
The structure of monthly Rate L is as follows:

\$10.95 per kilowatt of billing demand;
plus
2.42¢ per kilowatthour.

If applicable, the discounts for supply at medium or high voltage and adjustment for transformation losses described in Sections 303 and 304 apply.

Contract power 106
The contract power at Rate L must not be less than 5,000 kilowatts.

When a customer terminates an annual contract and subscribes for another for the delivery of electricity at the same location and for similar purposes within the following 12 consecutive monthly periods, these two contracts are considered as one contract in regard to the contract power.

Billing demand 107
The billing demand at Rate L is equal to the maximum power demand during the consumption period concerned, but cannot be less than the contract power, which becomes the minimum billing demand.

Optimization charge 108
If at any point in a day during the winter period the maximum power demand exceeds 110% of the contract power, the overrun is subject to a daily optimization charge of \$6.38

Discount for supply at medium or high voltage 303

When Hydro-Québec supplies electricity at medium or high voltage and the customer utilizes it at this voltage or transforms it at no cost to Hydro-Québec, this customer, and this customer alone, is entitled to a monthly discount in dollars per kilowatt on the monthly demand charge applicable to the contract. The discounts, determined according to the supply voltage, are as follows:

Nominal voltage between phases equal to or greater than	Monthly discount \$/kW
5 kV, but less than 15 kV	\$0.501
15 kV, but less than 50 kV	\$0.804
50 kV, but less than 80 kV	\$1.788
80 kV, but less than 170 kV	\$2.193
170 kV	\$2.934

No discount is granted for short-term contracts with a duration of less than 30 days or on the minimum monthly bill under Rates G and G-9.

Adjustment for transformation losses 304

To take account of transformation losses, the following adjustments apply:

- a) when the metering point of the electricity is at the supply voltage and the supply voltage is 5,000 volts or more, the discounts set forth in Section 303 are increased by 13.20¢;
- b) when the metering point is located on the line side of the Hydro-Québec equipment that transforms electricity from a voltage of 5,000 volts or more to the voltage used by the customer, in accordance with a contract, a monthly discount on the demand charge is granted for the contract. The amount of the discount is 13.20¢.

Power-factor improvement 305

If the customer installs capacitors, synchronous motors or synchronous condensers that reduce the apparent power demand, Hydro-Québec may, upon the customer's request and in regard to the annual contract thereby affected, adjust the minimum billing demand or the contract power accordingly.

This adjustment takes effect as of the first consumption period in which the meter reading indicates a significant improvement in the ratio of the real-power demand to the apparent-power demand, or as of any subsequent consumption period, at the customer's option.

The adjustment is made by reducing the minimum billing demand by the number of kilowatts of billing demand corresponding to the effective improvement of the said ratio, without such reduction involving a decrease in the minimum billing demand based on the real-power demand during the last 12 monthly periods.

This adjustment does not alter the effective 12 monthly periods the customer has to reduce the minimum billing demand or the contract power of a medium-power or large-power contract.

Conditions for supply of electricity at high voltage 306

In cases where Hydro-Québec supplies electricity at high voltage and the conditions of supply have not been specified in another Hydro-Québec Bylaw, such conditions of supply shall be stipulated in a written agreement between Hydro-Québec and the customer.

This present Bylaw does not oblige Hydro-Québec to grant contracts for contract power greater than 175,000 kilowatts.

Subdivision 2 - Restrictions

Restrictions concerning short-term contracts 307

This Bylaw does not oblige Hydro-Québec to accept short-term contracts for a power demand of more than 100 kilowatts.

NLH-9(d) Manitoba Hydro

GENERAL SERVICE LARGE

<i>Non-Residential Customer-owned transformation</i>	Monthly Billing Demand @ \$/kV-A		Energy Charge @ ¢/kW-h
Rate			
Exceeding 750 V to not exceeding 30 kV	\$7.089	+	2.010¢
Exceeding 30 kV to not exceeding 100 kV	\$6.363	+	1.975¢
Exceeding 100 kV	\$5.751	+	1.975¢

Notes: The minimum bill is the Demand Charge.
Monthly Billing Demand is the greatest of the following expressed in kV-A:
i) measured demand.
ii) 80% of highest measured demand in any of the previous months of
December, January, February.
iii) 25% of contract demand.
iv) 25% of the highest measured demand in any of the previous 12 months.

Nova Scotia Power

AVAILABILITY:

This rate is applicable to three phase electric power and energy supplied at the low voltage side of the bulk power transformer to any industrial customer having a regular billing demand of 2 000 kV.A or 1 800 kW, and over.

DEMAND CHARGE

\$7.20 per month per kilovolt ampere of maximum demand of the current month or the maximum actual demand of the previous December, January or February occurring in the previous eleven (11) months

32 cents per kilovolt ampere reduction in demand charge where the transformer is owned by the customer.

SPECIAL CONDITIONS:

- (1) At the option of the Company, supply may be at distribution voltage. Meter readings shall be increased by 1.75% for each transformation between the meter and the low voltage side of the bulk power supply transformer to adjust for transformer losses. Also, meter readings shall be reduced when metering is at transmission voltage.