

IN THE MATTER OF the *Electrical Power Control Act, 1994* (the “EPCA”) and the *Public Utilities Act, R.S.N. 1990, Chapter P-47* (the “Act”) and their subordinate regulations; and

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro (“Hydro”) for approvals of: (1) Under Section 70 of the Act, changes in the rates to be charged for the Supply of power and energy to its Retail Customer, Newfoundland Power, its Rural Customers and its Industrial Customers; (2) Under Section 71 of the Act, its Rules and Regulations applicable to the supply of electricity to its Rural Customers; (3) Under Section 71 of the Act, the contracts setting out the terms and conditions applicable to the supply of electricity to its Industrial Customers; and (4) Under Section 41 of the Act, its 2002 Capital Budget.

WRITTEN EVIDENCE

OF

MELVIN LLOYD DEAN

FOR

**ABITIBI CONSOLIDATED INC. (GRAND FALLS)
ABITIBI CONSOLIDATED INC. (STEPHEVILLE)**

August 15, 2001

EVIDENCE OF MELVIN LLOYD DEAN

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Q. Would you please state your name, address and occupation?

A. My name is Melvin Lloyd Dean. I reside at 91 Maryland Drive, Stephenville, Newfoundland. I am a professional engineer and I am employed by Abitibi-Consolidated Inc. ("ACI") as Coordinator of Strategic Projects at its pulp and paper mill at Stephenville. I have been involved in electrical rate issues since 1987 and have been in my current position since 1999. My responsibilities are primarily power, wood supply, alternate energy sources and the mill's business plan.

Q. Is there a power supply agreement in place between ACI-Stephenville and Newfoundland and Labrador Hydro?

A. Yes. There is a power supply agreement dated September 1, 1992, in place between Abitibi-Price Inc.(now ACI) and Newfoundland and Labrador Hydro ("Hydro") for the supply of power to the Stephenville mill. There is also an agreement dated November 30,1993 between ACI and Hydro relating to curtailable power, otherwise called "Interruptible B Power".

1 Q. Are you familiar with the financial information relating to the operation of the Abitibi
2 mill at Stephenville?

3
4 A. Yes. As part of my job, I am required to be familiar with the production cost of the
5 operation at Stephenville. Since the spring of 1991, I have been assigned the
6 responsibility for reducing the cost per tonne for electrical power. This responsibility
7 includes review of the cost of power to the mill and, with the assistance of the controller,
8 analysis of data relating to the cost of power to be purchased by the mill. I also analyse
9 the effects of rate changes or other changes affecting the cost of power at the mill and
10 monitor and help implement internal measures to maximize production and minimize
11 energy consumption.

12
13 I have also been directly involved in rate hearings before this Board since 1991.

14
15 Q. Why is ACI so interested in the cost of power?

16
17 A. Abitibi-Consolidated Inc. (Stephenville Division) manufactures approximately 185,000
18 metric tonnes of newsprint per year. The actual production in 2000 was 180,704 tonnes.
19 The 2001 production forecast is 184,232 tonnes.

20

1 Stephenville (and Grand Falls) newsprint is primarily sold in Europe and South America /
2 Caribbean. This adds additional shipping costs that cannot be passed on to customers. To be
3 competitive in the global marketplace we must be low cost in other areas.

4
5 Stephenville newsprint is manufactured using 100% thermo-mechanical pulp. This
6 pulp process is energy intensive. Large amounts of energy are required in order to
7 produce the high quality newsprint that is demanded by the pressrooms in the
8 International marketplace.

9
10 The mill in Stephenville employs 292 people directly. In addition, there are 98 ACI
11 employees in the woodlands required for the supply of wood to Stephenville.

12
13 In 2000, the Stephenville peak demand was 70,392 kw and the energy used at the mill
14 was 552.3 gWh.. In 2000, the Stephenville mill purchased 536,676,972 kwh from Hydro.
15 The other 15,639,639 kwh was wheeled from our mill in Grand Falls. The 2000 actual
16 purchased power cost for the Stephenville mill was \$17,621,734.

17
18 Hydro's proposed rates are estimated to increase Stephenville's power costs by \$3.2
19 million per year. This is an increase of 18.8% based on the power purchased from Hydro
20 in 2000.

1 This increase in power costs will make Stephenville one of the high-cost ACI mills. High
2 cost mills are the ones that are more likely to be shut down when there is excess
3 inventory in the market place. Up unto the end August, 2001, the two high cost ACI mills
4 are scheduled for the greatest amounts of downtime for inventory adjustment.

5
6 Mills with higher manufacturing costs are also less likely to attract capital investment.

7
8 The cost of electrical power is a major consideration for the Stephenville mill. In 2000,
9 the Stephenville mill purchased 536.7 GWh of electrical energy from Hydro. This is 42%
10 of the total Island Industrial energy consumption in 2000.

11
12 Electrical energy is our second highest manufacturing cost - second only to the cost of
13 wood. Power represents about 20% of our manufacturing cost, thus energy usage and
14 power rates have a significant impact on our bottom line.

15
16 Q. What steps have been taken at the Abitibi mill in Stephenville to minimize costs in recent
17 years?

18
19 A. The Stephenville mill is one of the most efficient and well managed mills in North
20 America. The items that are mill controllable are in line or better than average. It is

1 energy, wood and shipping, areas that we have limited control, where we are at a
2 disadvantage.

3
4 In terms of energy efficiency, Stephenville:

- 5
- 6 1. Uses premium efficiency motors – this is part of our motor specification when
7 purchasing motors.
 - 8 2. Uses high efficiency, high intensity discharge lighting.
 - 9 3. In the office areas, has a program to replace the existing fluorescent light with
10 high efficiency electronic ballast lighting.
 - 11 4. In the last 10 years, has replaced all eddy current couplings drives with more
12 efficient variable speed drives.
 - 13 5. Made modifications and changed operational procedures in order to allow us to
14 shut down equipment rather than to leave it idle.
 - 15 6. Modified and simplified our electrical distribution and eliminated three power
16 transformers which reduced energy losses.
 - 17 7. Reduced water usage (and subsequent energy requirement) on our paper machine
18 drive cooling unit.
- 19
20

1 The energy per wrapped tonne of newsprint has decreased slightly since 1992. In 1992,
2 we used 3003 kwh / wrapped tonne. Year-to-date 2001 we have used 2990 kwh /
3 wrapped tonne. This decrease has been accomplished in spite of market pressures to
4 increase newsprint quality (i.e. put more energy into the pulp). Also, in 1992, 3.9% of the
5 total furnish was purchased pulp (which requires low energy) – the year-to-date
6 accomplishment is with 100% thermo-mechanical (high energy) pulp.

7
8 Improvements to our load factor have been made over the years. This reduces our power
9 cost per tonne. From 1991 – 1995, average load factor was 83.1% and from 1999 to
10 present, the load factor has averaged 87.6% Market downtime and strikes in 1996-1998
11 reduced the load factor in those years

12
13 We continue to review our suppliers in order to ensure that we pay the best possible
14 prices for the products which we use in our operation and to control shipping costs.

15
16 Q. Is there any reason why the cost of power is particularly important to the Stephenville
17 mill?

18
19 A. Yes. This is discussed in detail in the evidence of Pierre Côté. Basically, since the cost of
20 power currently represents 20% of the total production cost of a tonne of newsprint,
21 changes in the cost of power have a significant effect on our bottom line. They also have

1 a significant impact on our competitiveness. Our bottom line is, has been, and will
2 continue to be, extremely important to the short and long term viability of the mill.

3
4 If the proposed increases for 2002 are approved, Stephenville's electrical costs for firm
5 energy will increase by \$3.2 million in 2002 over 2001 which is an increase of \$18.25 per
6 tonne of newsprint produced. The costs of the projected increase in 2004 will result in a
7 cumulative increase of \$28.00 per tonne.

8
9 The proposed implementation of an 11-11.5% rate of return on equity by 2004 is
10 expected to result in further increases which, cumulatively, will amount to an increase of
11 more than 30% in firm electrical costs at Stephenville. This includes a 23% increase in
12 the average cost per kWh (IC-16, Part 7 and IC-206(3)) and the 7% attributable to the
13 RSP contribution. In addition, changes in contractual provisions, non-firm rates and
14 wheeling charges all have additional cost implications for Stephenville which have yet to
15 be fully quantified.

16
17 Q. Are you familiar with energy issues affecting the cost of purchased power at ACI's Grand
18 Falls mill?

19

1 A. Yes. I am part of a committee which includes representatives of both mills which has
2 been studying the impacts not only of proposed rate increases but also of proposed
3 changes in contract language which will likely affect our costs.

4

5 Q. Is there a power supply agreement in place between ACI-Grand Falls and Hydro?

6

7 A. Yes. There is a power supply agreement dated June 23, 1982, in place between Abitibi-
8 Price Inc.(now ACI) and Hydro for the supply of power to the Grand Falls mill. There is
9 also an agreement dated April 6,1983 between Abitibi-Price Inc, (now ACI) and Hydro
10 relating to compensation on an on-going basis from Hydro for the diversion by Hydro of
11 certain waters of the Exploits River Watershed for the purpose of developing Phase II of
12 Hydro's Bay d'Espoir Hydro-electric Project. That agreement is often referred to as the
13 "Compensation Agreement".

14

15 Q. Apart from the changes in firm rates, what proposed changes to the existing contracts
16 have financial implications for Stephenville and Grand Falls and what are the expected
17 financial impacts of those changes?

18

19 A. In IC-30, the Industrial Customers asked Hydro to outline the differences between the
20 existing contracts and the proposed contracts and to provide financial impact of the
21 forecast changes. The latter has not yet been provided. However, some of the impacts

1 which increase our costs and cause the total amount of the increase to be greater than
2 18% and are reflected in the following:

3
4 **Non-firm Rates**

5
6 Hydro's proposed Non-firm rate is a catch-all rate which includes what used to be ACI's
7 Interruptible "A" energy, Emergency Power, Supplemental Energy, Exceptional Energy
8 and Secondary Energy. Hydro's proposal contemplates an average 29% increase in the
9 non-firm rates. For Stephenville, based on a fuel cost of \$28.00 per barrel and its current
10 load factor of 89%, its costs of Non-firm energy will actually increase by 56%

11
12 The variety of rates provided for in the existing contracts applied to specific types of
13 circumstances which may vary form year to year. The proposed new rate is prohibitive
14 and yet, in the case of Generation Outage Demand in Grand Falls, cannot be avoided.

15
16 IC-16, page 6 of 12 shows the usage of these options by the Industrial Customers in the
17 period 1992-2000. The total dollar value of the Interruptible "A", Exceptional and
18 Emergency Power in 2000 was \$6,080,592.00 although the amounts vary significantly
19 from year to year. Based on 2000, a 29% increase in Non-firm rates will add
20 \$1,763,371.00 to the Industrial Customers' energy costs in 2002. As noted above,

1 however, the magnitude of these changes varies among the Industrial Customers.

2 Stephenville faces an increase of 56% for 2002.

3
4 **Converters**

5
6 _____Article 6.01 relates to issues covered in Article 7 of the existing Grand Falls contract. is
7 critical to Grand Falls. This appears to transfer to ACI - Grand Falls the responsibility for
8 conversion.

9
10 Hydro has asked that the converters be treated as Specifically Assigned. This increases
11 Grand Falls Specifically Assigned Charges by an undetermined amount for 2002, which
12 is believed to be significant..

13
14 **Transformer losses**

15
16 _____In the new draft of the industrial power contract, Hydro is proposing that the transformer
17 losses for ACI-Stephenville's four 230 kv transformers be added to our power bill. This is
18 expected to add \$75,000 - \$100,000 to Stephenville's energy costs. Similar changes are
19 proposed for Grand Falls and will also add cost to its energy requirements

20

1 _____ Currently, Hydro handles transformer losses in different ways for different customers.

2 The following table summarizes the situation as we know it today and Hydro's current
 3 proposal. The table summarizes the customers and the 'effective' voltage at which the
 4 power is purchased. This is a convenient way of avoiding the details around meter
 5 location and if customer currently pays for losses or not.

6
 7 The higher the purchase voltage, the greater the losses borne by the customer. The lower
 8 the purchase voltage, the more the losses are absorbed by Hydro.

CUSTOMER	CURRENT SITUATION		HYDRO'S PROPOSAL	
	Transformer	Power Purchased @ Voltage (kv)	Transformer	Power Purchased @ Voltage (kv)
ACI - ST	TA1 & TA2 T69-1 & T69-2	13.8 6.9	TA1 & TA2 T69-1 & T69-2	230 230
ACI - GF	T1 & T2 T3	13.8 230	T1 & T2 T3	230 230
Corner Brook Pulp & Paper	T1 / T2 / T3 (common with NF Power)	66	T1 / T2 / T3 (common with NF Power)	66
North Atlantic Refining	T1 & T2	13.8	T1 & T2	230
Newfoundland Power	Various Transformers	230 130 66	Various Transformers	230 130 66

1 Our research indicates that other jurisdictions treat transformer losses quite differently.
2 Nova Scotia Power provides for a reduction in meter readings when energy is metered at
3 transmission voltage. New Brunswick Power seems to limit transformation charges to
4 those circumstances where power is supplied at primary voltages between 4 kv and 25 kv.
5 In that case, the demand and energy rates are increased by 1.5%. Hydro Quebec provides
6 major discounts per kilowatt for Industrial Customers taking power at high voltage.
7 Manitoba Hydro's web site indicates that the rates go down when energy is taken at
8 higher voltages.

9
10 **Force Majeure and Strikes**

11
12 _____ Articles 9.02 and 10.02, respectively, of the 2001 Draft Contract, continue to significantly
13 alter the provisions with respect to billing and demand during strikes and work stoppages
14 for natural and non-natural causes. In particular, the reduction in the Billing Demand is
15 limited to 15% where the problem is that the Customer cannot take the energy that Hydro
16 can deliver in accordance with the agreement.. This is provided in the new Article
17 9.02(2) and 10.02(2), respectively.

18
19 In the new proposal, the only time when full recognition for a reduction in power is
20 permitted is when the interruption is caused by Hydro. There is no provision in the
21 proposed 2001 Draft Contract equivalent to Article 11.08(2) of the 1992 Stephenville

1 Contract or Article 13 of the 1982 Grand Falls contract which provides for a reduction in
2 the minimum monthly payment during a strike at the mill in excess of 30 days.

3
4 The strike clause is of importance to ACI. With Stephenville's 70,000 kw demand, the
5 increased cost per month during a strike longer than 30 days would be \$417,000.00.

6
7 **Wheeling Grand Falls and Stephenville**

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9 The Article relating to Wheeling does not address all the items covered in the existing
10 agreements. The 7% increase in the wheeling rate has cost implications for ACI. above
11 and beyond the Firm rate increases since Grand Falls wheels surplus energy to
12 Stephenville when Stephenville can take it.

13
14 **Supply of Surplus Energy by Customer Grand Falls**

15
16 Article 10 of the 1982 Grand Falls contract provides for the sale by ACI to Hydro of
17 surplus energy which Grand Falls is unable to take. This is not included at all in the 2001
18 draft agreement.

19

20

21

1 **Curtable/ Interruptible “B” Power**

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3 Hydro may or may not be prepared to renew when it expires. That will add significant
4 cost to Stephenville which receives a credit for its willingness to have its power supply
5 interrupted.

6

7 **Article 4 Grand Falls - Off Peak Power**

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9 _____ Article 3.07 of the existing 1982 Grand Falls contract is a clause which potentially
10 benefits ACI-Grand Falls. It provides an incentive for ACI to reduce the Amount of
11 Power on Order to be supplied during Hydro’s normal daily peak system demand by
12 increasing ACI’s demand during Hydro’s off peak hours. Such off peak power, under the
13 existing contract, is then provided with a price concession attached as set forth in the
14 clause. There is no equivalent provision proposed in the 2001 Draft Contract.

15

16 Q. How are the proposed rate increases for the Industrial Customers viewed by ACI-
17 Stephenville?

18

19 A. ACI-Stephenville is frustrated by the magnitude of the proposed increases for 2002 and
20 by the implications of Hydro’s rate of return and capital structure proposals for the future.
21 ACI’s success over the last 10 years in reducing its electrical costs had improved the cost

1 per tonne at Stephenville. This, in tum, improved the viability of each of the mill. This
2 rate increase will put the Stephenville mill in the high cost per tonne category within
3 ACI.

4
5 We have participated fully in hearings before the Board involving rate issues and have
6 worked hard at reducing our electrical costs to make us more competitive. Hydro's
7 response to IC-7 shows that the Industrial Customers, including ACI's Stephenville and
8 Grand Falls mills, contributed \$37.8 million dollars to the subsidy in the period 1992-
9 1999. We believed that eliminating the subsidy and implementing the 1993 cost of
10 service methodology would have a long term impact on our electric costs. However, one
11 way or another, this proposal eliminates all of the gains we thought we had made.

12
13 The increases for ACI are totally out of proportion to those for Newfoundland Power. As
14 noted above, increases of these magnitudes have significant negative impacts on the cost
15 per tonne at each mill. This affects the future viability of the mills and is likely to have a
16 significant negative impact on the amount of downtime which one or both of ACI's
17 Newfoundland mills may experience in the future.