

1 Q. In respect of transformer losses:

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3 a) How are such losses currently assigned by Hydro? Provide a
4 schedule showing the total dollar amount associated with these losses
5 and its assignment to customer classes.

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7 b) Provide a schedule in the form of the schedule requested in a) above
8 showing the same information assuming that Hydro's application in
9 this proceeding is granted in its entirety.

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11 c) Identify the financial effects for Newfoundland Power and each of the
12 Industrial Customers of the differences between a) and b) above.

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14 d) Identify the financial effects for Newfoundland Power and the
15 Industrial Customers if transformer losses below 66 kV were
16 specifically assigned and transformer losses from generation voltage
17 down to 66 kV were assigned common.

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20 A. In respect of transformer losses:

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22 a) Transformer losses treatment is dependent upon the nature of the
23 transformer. Losses on common transformers are allocated among the
24 participating rate classes. Distribution transformer losses are therefore
25 allocated among distribution level customers. Common transmission
26 level transformer losses are allocated among rate classes based upon
27 transmission level usage. Losses on transformers specifically assigned
28 to customers are added to the demand and energy of the customer

1 groups for costing purposes. Losses on customer owned transformers are
2 invoiced to the customer, with one exception. Losses on transformers
3 owned by Abitibi Consolidated – Stephenville are treated as specifically
4 assigned to the Industrial class. The dollar amounts associated with those
5 transformer losses cannot be isolated, as the losses affect the rates
6 charged to customers, rather than having a rate per loss unit. Specifically
7 assigning losses to the customer classes results in lower billing units and
8 increased rates. Invoicing these losses increases billing units, and
9 therefore reduces rates. In either case, Hydro is revenue neutral. The
10 attached schedule shows the total billing units and revenue requirement,
11 as it would have been had the current practice been continued (Page 3,
12 Lines, 1-3, Columns 2-4).

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14 b) Please see the attached schedule (Page 3, Lines 1-3, Columns 5-7).

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16 c) Please see the attached schedule (Page 3, Lines 4-8).

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18 d) If transformer losses below 66 kV were specifically assigned and
19 transformer losses from generation voltage down to 66 kV were assigned
20 common, both allocation factors and billing units would change. There
21 would therefore be a shift in cost allocation after deficit, as well as in unit
22 costs. Customer impacts are shown on the attached schedule (Page 4).

Newfoundland and Labrador Hydro
Transformer Losses Impact

Part a) Specifically Assigned Transformer Losses Not billed				Part b) Proposed			Difference	
1	2	3	4	5	6	7	8	
Line No	MWh	Rate	Energy Revenue	MWh	Rate	Energy Revenue		
1	Newfoundland Power	4,452,127	48.03	213,835,676	4,454,800	48.00	213,830,400	(5,276)
2	Industrial Customers - Firm	1,459,627	23.17	33,819,558	1,464,970	23.09	33,826,157	6,600
3	Total Revenue from Energy (Difference due to rate rounding)			247,655,234			247,656,557	1,323

Note: No demand impact is anticipated, as it is assumed the transformer losses will not result in any Industrial Customers exceeding Power on Order.

Part c) The impact on individual Industrial Customers is:

Specifically Assigned Transformer Losses Not billed				Proposed			Difference	
1	2	3	4	5	6	7	8	
Line No	MWh	Rate	Energy Revenue	MWh	Rate	Energy Revenue		
4	Abitibi Consolidated - Stephenville	564,278	23.17	13,074,321	567,512	23.09	13,103,852	29,531
5	Abitibi Consolidated - Grand Falls	145,334	23.17	3,367,389	146,290	23.09	3,377,836	10,447
6	Corner Brook Pulp and Paper Limited	517,568	23.17	11,992,051	517,568	23.09	11,950,645	(41,405)
7	North Atlantic Refining Limited	232,447	23.17	5,385,797	233,600	23.09	5,393,824	8,027
8	Subtotal - Industrial	1,459,627		33,819,558	1,464,970		33,826,157	6,600

Newfoundland and Labrador Hydro
Transformer Losses Impact

Part d)

Line No	Energy	Proposed			Losses on > 66kV Transformers Common			
		1 MWh	3 Rate	4 Revenue	5 MWh	6 Rate	7 Revenue	8 Difference
1	Newfoundland Power	4,454,800	48.00	213,830,400	4,451,414	48.06	213,934,971	104,571
2	Abitibi Consolidated - Stephenville	567,512	23.09	13,103,852	564,278	23.13	13,051,750	(52,102)
3	Abitibi Consolidated - Grand Falls	146,290	23.09	3,377,836	145,080	23.13	3,355,700	(22,136)
4	Corner Brook Pulp and Paper Limited	517,568	23.09	11,950,645	517,568	23.13	11,971,348	20,703
5	North Atlantic Refining Limited	233,600	23.09	5,393,824	232,447	23.13	5,376,499	(17,325)
6	Subtotal - Industrial Customers	<u>1,464,970</u>		<u>33,826,157</u>	<u>1,459,373</u>		<u>33,755,297</u>	<u>(70,860)</u>
	Demand	kW			kW			
7	Abitibi Consolidated - Stephenville	840,000	7.01	5,888,400	840,000	6.99	5,871,600	(16,800)
8	Abitibi Consolidated - Grand Falls	264,000	7.01	1,850,640	264,000	6.99	1,845,360	(5,280)
9	Corner Brook Pulp and Paper Limited	780,000	7.01	5,467,800	780,000	6.99	5,452,200	(15,600)
10	North Atlantic Refining Limited	360,000	7.01	2,523,600	360,000	6.99	2,516,400	(7,200)
11	Subtotal - Industrial Customers	<u>2,244,000</u>		<u>15,730,440</u>	<u>2,244,000</u>		<u>15,685,560</u>	<u>(44,880)</u>
12	Total			<u>263,386,997</u>			<u>263,375,828</u>	<u>(11,169)</u>

¹ Difference due to Labrador Interconnected Deficit Allocation, and Rate rounding

Note: Demand rate is impacted by assigning demand losses on customer owned transformers to common losses.

