

1 Re: Page B-9, Upgrade Distribution Systems, \$2,727,300

2 Q. For each of the lines in question, please provide the SAIFI and SAIDI for
3 each year from 2002 to 2007F, showing a comparison with Hydro's system
4 average for the region.

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7 A. Please see charts below:

SAIFI

SAIFI (Average Customer Interruption Frequency)

Year	Corporate	Central Inter-connected	South Brook Line 1	Northern Inter-connected	Glenburnie Line 1	St Anthony Line 3	Bear Cove Line 4
2002	9.44	7.20	3.33	7.11	4.48	7.81	4.01
2003	7.88	7.42	5.76	6.66	9.30	3.07	8.98
2004	5.90	4.73	4.21	4.04	0.03	4.65	7.13
2005	5.84	3.35	1.43	4.62	3.63	4.66	3.83
2006	5.33	2.92	1.43	4.66	3.49	6.92	2.70
2007*	3.47	2.14	1.26	2.50	0.23	2.57	0.62

* up to September 3, 2007

Year	Corporate	Northern Isolated	Mary's Harbour	Port Hope Simpson	Labrador Interconnected	Wabush Line 11
2002	9.44	37.80	13.16	16.09	7.80	7.42
2003	7.88	17.49	9.07	5.19	7.40	6.38
2004	5.90	14.88	12.43	8.52	6.02	6.15
2005	5.84	11.38	22.31	14.08	9.17	9.11
2006	5.33	7.65	12.12	8.15	8.20	15.46
2007*	3.47	5.99	10.55	12.35	5.66	5.14

* up to September 3, 2007

SAIDI

SAIDI (Average Customer Interruption Duration in hours)

Year	Corporate	Central Inter-connected	South Brook Line 1	Northern Inter-connected	Glenburnie Line 1	St Anthony Line 3	Bear Cove Line 4
2002	13.63	17.18	9.87	10.77	0.45	11.01	2.51
2003	11.91	17.94	7.06	10.78	13.34	4.53	6.93
2004	11.17	11.98	7.78	7.84	0.10	6.95	10.13
2005	8.80	7.53	5.11	8.83	18.63	2.74	12.50
2006	7.73	6.79	6.83	6.90	9.69	3.15	5.04
2007*	5.28	4.65	0.83	5.49	0.39	5.42	0.42

* up to September 3, 2007

Year	Corporate	Northern Isolated	Mary's Harbour	Port Hope Simpson	Labrador Interconnected	Wabush Line 11
2002	13.63	34.48	18.01	5.56	7.09	7.45
2003	11.91	11.95	4.93	4.06	4.99	6.14
2004	11.17	33.46	7.41	1.56	9.91	12.97
2005	8.80	7.14	6.47	5.68	11.75	20.02
2006	7.73	6.17	7.87	7.78	9.60	20.81
2007*	5.28	4.49	4.04	8.75	5.20	10.83

* up to September 3, 2007

1 Although the statistics for some lines may not appear to be bad,
2 replacements are required for a number of reasons. Many of these older
3 lines were built using what are known as “black jack” poles. These poles
4 were treated against deterioration using what proved to be an inferior
5 treatment process, which was replaced by more effective methods many
6 years ago. These poles are often in such poor condition that our line workers
7 cannot climb them, due to the risk of spur kick out and pole failure. In the
8 interest of safety, system reliability and to minimize outage time we replace
9 such poles under controlled conditions, rather than waiting until they fail

1 under wind and ice loading during winter, when outages would be longer,
2 risks to personnel greater and the cost to replace would be much higher.

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4 Insulators on these old lines are of the class which have experienced
5 industry wide failures due to cement growth, and are prone to failures,
6 particularly under wind and ice loading.

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8 The S&C cutouts are prone to failure of the porcelain when being opened or
9 closed and are a safety risk to employees. Falling shards of the broken
10 porcelain pose a risk to the worker and the dangling energized primary lead
11 could contact the pole or other equipment in the pole causing a violent flash
12 or could cause other equipment to become energized, putting the worker at
13 risk of electrical contact.

14

15 On most of these lines the conductor is #4 copper which has been in service
16 for over 30 years and in some cases has failed already. After years of
17 service, copper wire becomes brittle and susceptible to failure. Failure to
18 complete this work could result in significant interruptions of power to Hydro's
19 customers in the community.

20

21 There are varying quantities of poles, insulators, cutouts and conductors to
22 be replaced on the various systems, to ensure an acceptable level of
23 reliability and to permit the replacement of these sub-standard components
24 under controlled conditions at the least cost possible.