

1 Q. Further to IIC-NLH-16, please estimate the revenue loss related to the 985.8 GWh energy
2 savings.

3

4

5 A. From 2016 through 2020,¹ Newfoundland and Labrador Hydro (“Hydro”) and Newfoundland
6 Power Inc. (“the Utilities”) delivered joint conservation and demand management (“CDM”)
7 programming on the Island Interconnected System which resulted in cumulative energy savings
8 for customers of 985.8 GWh.

9 These CDM programs were justified based upon avoided No. 6 fuel costs; while these programs
10 represent a reduction in utility revenues, they are a net benefit to the system after taking into
11 account the avoided marginal fuel costs.

12 Programs focused solely on energy savings also produce system demand/capacity savings if a
13 portion of the energy savings associated with a measure saves energy over the season that is
14 coincident with system peaks (i.e., winter period). The value of capacity has increased
15 substantially on the Island Interconnected System, and as such, cumulative capacity savings as a
16 result of previous energy conservation programs will continue to provide cost reduction benefits
17 on the Island Interconnected System into the future.

18 Table 1 provides a summary of the lost revenues and avoided costs of all CDM programming
19 from 2016 through 2020.

¹ 2020 Forecast.

Table 1: Summary of Historical CDM Programming

Year	Energy Savings (MWh)	Lost Revenue ² (\$000s)	Avoided Fuel Cost (\$000s)	Net System Benefit (\$000s)
2016	129,939	(11,071)	10,043	(1,029)
2017	164,453	(14,393)	18,815	4,422
2018	199,035	(19,064)	27,459	8,395
2019	236,702	(23,680)	37,279	13,599
2020F	255,980	(27,118)	37,634	10,516
Total	986,108³	(95,327)	131,231	35,904

1 As shown in Table 1, No. 6 fuel savings exceeded lost revenues by approximately \$35.9 million
 2 (excluding any capacity related benefits). These savings benefited all customers on the Island
 3 Interconnected System, including Island Industrial Customers, through the Rate Stabilization
 4 Plan. Detailed supporting schedules are provided in IIC-NLH-017, Attachment 1.

² An annual average electricity rate for each sector was used to calculate lost revenues in this table, taking into account rate changes occur partially through a year.

³ Total energy savings indicate 986.1 GWh in Table 1 as opposed to 985.8 GWh due to the cumulative impacts of rounding from summing up sector totals presented in IIC-NLH-017, Attachment 1.

Table 1: Conservation Programs – Residential

Year	Electricity Rate (\$/kWh)	Marginal Cost of Energy (\$/kWh)	Cumulative		Avoided Fuel Cost (\$000s)	Net System Cost Savings (\$000s)
			Energy Savings (MWh)	Lost Revenue (\$000s)		
2016	0.1010	0.077	89,158	(9,001)	6,891	(2,110)
2017	0.1021	0.114	114,622	(11,707)	13,114	1,407
2018	0.1104	0.138	141,266	(15,601)	19,489	3,888
2019	0.1164	0.157	165,428	(19,260)	26,054	6,794
2020F	0.1220	0.147	178,535	(21,787)	26,248	4,462
Total			689,007	(77,356)	91,796	14,441

Table 2: Conservation Programs – Commercial

Year	Electricity Rate (\$/kWh)	Marginal Cost of Energy (\$/kWh)	Cumulative		Avoided Fuel Cost (\$000's)	Net System Cost Savings (\$000s)
			Energy Savings (MWh)	Lost Revenue (\$000s)		
2016	0.0681	0.077	15,009	(1,022)	1,160	138
2017	0.0686	0.114	24,059	(1,651)	2,753	1,101
2018	0.0764	0.138	31,836	(2,433)	4,392	1,959
2019	0.0827	0.157	40,248	(3,328)	6,339	3,011
2020F	0.0853	0.147	46,420	(3,958)	6,825	2,867
Total			157,571	(12,392)	21,468	9,076

Table 3: Conservation Programs – Industrial

Year	Electricity Rate (\$/kWh)	Marginal Cost of Energy (\$/kWh)	Cumulative		Avoided Fuel Cost (\$000s)	Net System Cost Savings (\$000s)
			Energy Savings (MWh)	Lost Revenue (\$000s)		
2016	0.0407	0.077	25,772	(1,049)	1,992	943
2017	0.0401	0.114	25,772	(1,035)	2,949	1,914
2018	0.0397	0.138	25,934	(1,030)	3,578	2,548
2019	0.0352	0.157	31,026	(1,092)	4,886	3,794
2020F	0.0443	0.147	31,026	(1,374)	4,561	3,188
Total			139,530	(5,579)	17,966	12,387