1Q.Please provide operating costs on a kWh basis for the major Canadian electricity2distribution companies (4-32).

3
4 A. Newfoundland Power does not have the requested data. Newfoundland Power annually submits a peer group report which includes similar data for selected American utilities.
6 A copy of the 2014 Peer Group Report is included as Attachment A.

Peer Group Performance Measures for Newfoundland Power March 25, 2015

Peer Group Performance Measures For Newfoundland Power

March 25, 2015



Table of Contents

Page

Intro	luction	1
Perfo	rmance Measures	1
2.1	U.S. Utility Measures	1
Sumr	nary and Conclusion	2
	Introd Perfo 2.1 2.2 Sumr	Introduction Performance Measures 2.1 Canadian Utility Measures 2.2 U.S. Utility Measures Summary and Conclusion

Appendix A: CEA Composite Comparisons

Appendix B: American (U.S.) Peer Group Composite Comparisons

Appendix C: List of Companies Included in U.S. Utility Peer Group

1.0 Introduction

In Order No. P.U. 19 (2003), the Board of Commissioners of Public Utilities (the "Board") ordered that Newfoundland Power Inc. ("Newfoundland Power" or "the Company") file with the Board in 2004 a report suggesting a "peer group" of utilities and performance measures upon which to evaluate the Company's performance.

In 2004, the Company submitted a draft report entitled *A Report on Peer Group Performance Measures for Newfoundland Power* which reviewed the Company's initial findings in relation to utility performance measures and benchmarking initiatives. Subsequently, Newfoundland Power submitted a report entitled *A Supplementary Report on Peer Group Performance Measures for Newfoundland Power* addressing questions from the Board and recommending certain additional measures.

On February 28, 2005, the Company submitted a report entitled *Peer Group Performance Measures for Newfoundland Power* (the "February 2005 Report"), which provided comparative statistical data together with an assessment of the appropriateness of the recommended performance measures. The February 2005 Report committed the Company to report annually on the measures presented until otherwise directed by the Board.

This report is provided in fulfillment of the Company's commitment to report annually on the measures presented in the February 2005 Report.¹ The performance information is updated to 2013.

2.0 Performance Measures

This report provides a comparison of Newfoundland Power performance measures against the performance measures of a composite of Canadian and U.S. utilities.

2.1 Canadian Utility Measures

The following measures are presented for comparing the Company's performance against a composite of Canadian utilities:

- 1. System Average Interruption Frequency Index (SAIFI);
- 2. System Average Interruption Duration Index (SAIDI); and
- 3. All-injury Frequency Rate (Injuries per 200,000 hours worked).

As with previous reports, this report uses data compiled by the Canadian Electricity Association ("CEA"). In particular, the report includes data from the CEA's *Annual Service Continuity Report on Distribution System Performance in Electrical Utilities* and *Safety Incident Statistics Reports*.

¹ A separate report relative to 2012 performance measures was not prepared, as Newfoundland Power's 2012 cost of service study was not completed until late in 2014. For that reason, Newfoundland Power is reporting 2012 and 2013 measures in this report.

The number of composite performance measures available from the CEA for publication is limited. As of this date, no cost-related CEA composite indicators have become available for the Company to use in the context of regulatory reporting of peer group performance measures.

Appendix A shows comparisons of the available Canadian utility composite measures and the equivalent Newfoundland Power data.

2.2 U.S. Utility Measures

The following measures are presented for comparing the Company's performance to a peer group of U.S. utilities:

- 1. Total Distribution Operating Expense per Customer;
- 2. Total Distribution Operating Expense per MWh;
- 3. Total Customer Service Expenses per Customer;
- 4. Total Administration and Other Operating Expense per Total Operating Expense (excluding fuel and purchased power);
- 5. Total Operating Expense per Energy Sold (excluding fuel and purchased power); and
- 6. Total Operating Expense per Customer (excluding fuel and purchased power).

Appendix B contains comparisons of the composite measures for U.S. utilities and the equivalent Newfoundland Power data. The U.S. composite measures are based on data from 18 utilities. For each measure, the range of individual utility results is provided.

The U.S. measures are based on information filed with the Federal Energy Regulatory Commission ("FERC"). FERC requires major electric utilities under its jurisdiction to annually file prescribed information regarding their operations based on a FERC-defined system of accounts. The FERC filings are public information.

The measures for the U.S. data are presented without any adjustment for exchange rates. With the significant shifting in exchange rates since 2000, converting U.S. dollar figures to Canadian values would greatly distort cost trends.

Appendix C is a list of the U.S. utilities from which the composite measures in Appendix B were compiled.

3.0 Summary and Conclusion

Ongoing concerns with data availability and quality, coupled with observed differences in the operating profiles of participating utilities, makes it difficult to draw meaningful conclusions regarding the Company's performance relative to other utilities.

Newfoundland Power maintains that year-over-year trending of the Company's own data provides a more useful indication of performance than any comparison with data available in relation to other utilities.

Based on the measures reported herein:

- 1. Newfoundland Power's reliability performance improved over the period 2004 to 2009. Since 2009, reliability performance was negatively impacted by an increasing frequency of major system events.
- 2. Newfoundland Power's cost performance during the period from 2004 to 2008 indicates an overall stable or improving trend. The 2009 through 2013 cost indices show increases, driven principally by increased pension and benefit costs. Pension and benefit costs have been significantly impacted by the 2011 change in the accounting treatment of Other Post Employment Benefits ("OPEBs") costs.
- 3. Comparisons are subject to the limitations noted above; however, Newfoundland Power's performance generally compares favourably to that indicated by trends in the composite data for Canadian and U.S. utilities presented in this report.

Appendix A

CEA Composite Comparisons

Appendix A

CEA Composite Comparisons

Table of Contents

Measure	Page
System Average Interruption Frequency Index (SAIFI)	A-1
System Average Interruption Duration Index (SAIDI)	A-3
All-injury Frequency Rate (Injuries per 200,000 hours worked)	A-5



System Average Interruption Frequency Index (SAIFI)

Year	CEA (Excluding Significant Events)	CEA (Including Significant Events)	Newfoundland Power
2004	1.98	1.98	3.58
2005	2.13	2.13	3.21
2006	2.15	2.53	2.89
2007	2.27	2.32	3.30
2008	2.18	2.34	2.84
2009	2.01	2.01	2.46
2010	2.14	2.14	2.99
2011	2.63	2.63	2.16
2012	2.48	2.54	3.01
2013	2.48	2.72	3.83

SAIFI is a standard industry index representing the average number of interruptions per customer served per year.

The CEA trend line reflects the composite performance of participating Canadian utilities (36 participants in 2013). The trend line shows that the frequency of service interruptions to customers has been relatively stable over the period 2004 to 2010. The average SAIFI for Canada increased slightly in 2011, and appears stable from 2011 to 2013.

For Newfoundland Power, the data trend reflects a general decline in the frequency of customer outages from 2004 to 2011. The increases in 2007 and 2010 were due to significant weather events, consisting of severe winter storms in December 2007 and March 2010, Hurricane Igor in September 2010. The increase since 2011 reflects the impact of Tropical Storm Leslie in September 2012 and the loss of supply events of January 2013.



System Average Interruption Duration Index (SAIDI)

Year	CEA (excluding Significant Events)	CEA (including Significant Events)	Newfoundland Power
2004	3.95	3.95	4.86
2005	4.80	4.80	3.53
2006	4.37	7.85	2.98
2007	5.02	5.47	6.46
2008	4.61	6.29	2.80
2009	4.20	4.20	2.69
2010	5.22	5.22	14.22
2011	6.16	6.16	4.09
2012	4.43	4.66	6.74
2013	6.15	9.49	10.26

SAIDI is a standard industry index representing the average interruption duration per customer served per year.

The CEA trend line reflects the composite performance of participating Canadian utilities (36 participants in 2013). The trend lines show significant variability year over year. The fluctuations are principally due to the inclusion of outages caused by significant weather events. When significant events are excluded, there is a relatively stable trend line for the CEA composite.

The anomalous results evident in the "CEA including Significant Events" trend line reflect storms in British Columbia and Ontario during 2006, and storms in Ontario in 2008, 2011 and 2013.

For Newfoundland Power, the data trend reflects the increasing frequency of major events. The increases in 2007, 2010, 2012 and 2013 were a result of significant weather events, including severe winter storms in December 2007 and March 2010, Hurricane Igor in September 2010, Tropical Storm Leslie in September 2012, and the loss of supply events of January 2013.



All-injury Frequency Rate (Injuries per 200,000 hours worked)

	CEA	Newfoundland
Year	Composite	Power
2004	3.48	1.36
2005	2.76	1.65
2006	2.84	2.94
2007	3.01	2.16
2008	2.88	2.70
2009	1.77	1.20
2010	1.65	1.90
2011	1.34	1.77
2012	1.56	1.74
2013	1.40	1.05

This measure represents the rate of disabling injuries and medical aid injuries per 200,000 exposure hours (hours worked).

The CEA data is a composite of 13 participating Canadian utilities. Both the CEA and Newfoundland Power trend lines show a comparable level of improvement.

Appendix B

American (U.S.) Peer Group Composite Comparisons

Appendix B

American (U.S.) Peer Group Composite Comparisons

Table of Contents

Measure	Page
Total Distribution Operating Expense per Customer	B-1
Total Distribution Operating Expense per MWh	B-3
Total Customer Service Expense per Customer	B-5
Total Administration and Other Operating Expense per Total Operating Expense (excluding fuel and purchased power)	B-7
Total Operating Expense per Energy Sold (excluding fuel and purchased power)	B-9
Total Operating Expense per Customer (excluding fuel and purchased power)	B-11



Total Distribution Operating Expense per Customer (2013\$)

Year	U.S. Peer Group Composite	Newfoundland Power
2004	101.1	70.5
2005	102.1	67.1
2006	111.9	66.2
2007	105.4	66.8
2008	113.3	61.2
2009	109.9	65.1
2010	125.1	69.9
2011	121.9	70.0
2012	114.5	63.5
2013	118.0	66.1

This measure represents the total cost of operating and maintenance for the distribution function, as defined under the FERC code of accounts, expressed on a per customer account basis and adjusted for inflation. It measures the total direct cost of operating labour and materials,

excluding allocated corporate shared services, involved in the operation and maintenance of the distribution portion of the electrical system, expressed on a per customer basis.²

The graph shows a stable trend for Newfoundland Power over the period from 2004 to 2013.

While the numbers fluctuated, the U.S. utility data shows the distribution operating cost per customer to be increasing steadily. The U.S. utilities' individual 2013 measures range from approximately \$53 to approximately \$225 per customer.

² The distribution system is the portion of the electrical system that links the transmission system to customer facilities.



Total Distribution Operating Expense per MWh

- U.S. Peer Group (\$ US) - • Newfoundland Power (\$ Can)

Year	U.S. Peer Group Composite	Newfoundland Power
2004	4.52	3.16
2005	4.95	3.03
2006	4.92	3.03
2007	4.53	3.03
2008	5.36	2.78
2009	5.51	2.94
2010	5.99	3.14
2011	6.00	3.12
2012	5.52	2.82
2013	5.65	2.93

This measure represents the total cost of operating and maintenance for the distribution function, as defined under the FERC code of accounts, expressed on a per MWh of retail sales basis and adjusted for inflation. It measures the total direct cost of operating labour and materials, excluding allocated corporate shared services, involved in the operation and maintenance of the distribution portion of the electrical system, expressed on a per MWh basis.

The MWh of retail sales includes the total MWh sales of electricity as per retail rate schedules. It does not include sales for resale such as those to other distribution companies and retailers, nor energy interchanged through the power system (usually through transmission facilities).

The U.S. peer group trend has steadily increased over the reporting period; the increase is largely due to reduced sales. The U.S. utilities' individual 2013 measures range from approximately \$2 to approximately \$16 per MWh.

The graph shows a stable trend for Newfoundland Power from 2004 to 2013.



Total Customer Service Expense per Customer (2013\$)

Year	U.S. Peer Group Composite	Newfoundland Power
2004	75.1	53.8
2005	74.1	54.0
2006	76.7	54.8
2007	85.1	54.3
2008	90.9	51.9
2009	96.2	56.6
2010	104.1	59.5
2011	114.5	62.6
2012	117.4	56.0
2013	123.2	57.7

This measure represents the total cost of operating and maintenance for the customer accounting and customer service functions, as defined under the FERC code of accounts, expressed on a per customer account basis and adjusted for inflation. It measures the total direct cost of operating labour and materials, excluding allocated corporate shared services, associated with the management of customer relations and billing functions, expressed on a per customer account basis.

Newfoundland Power's data indicates a relatively stable trend over the 10 year period from 2004 - 2013.

The U.S. peer group composite had been steadily increasing since 2004. The U.S. utilities' individual 2013 measures range from approximately \$33 to approximately \$270 per customer.



Year	U.S. Peer Group Composite	Newfoundland Power
2004	33.7%	38.6%
2005	30.9%	40.9%
2006	31.4%	40.5%
2007	29.8%	42.1%
2008	28.0%	37.2%
2009	32.2%	36.7%
2010	29.7%	40.5%
2011	32.5%	48.6%
2012	34.6%	52.1%
2013	30.4%	52.2%

This measure is a ratio of the total administration and general expense to the overall corporate electrical operating and maintenance expense (excluding fuel and purchased power) as defined by the FERC code of accounts.

The trend line for the U.S. utilities was generally stable over the reporting period. The U.S. utilities' individual 2013 measures varied from approximately 1.2% to 323.7%.³

³ The ratio exceeding 100% results from an unexplained anomaly in one of the U.S. utilities' reports.

The graph shows a relatively stable trend for Newfoundland Power over the period from 2004 to 2007. The data for 2008 through 2013 reflects material changes in pension and benefit costs, including an increase in costs due to the 2011 change in the accounting treatment of OPEBs costs.



Year	U.S. Peer Group Composite	Newfoundland Power
2004	15.5	12.1
2005	17.9	12.0
2006	16.8	12.1
2007	17.9	11.9
2008	20.6	10.3
2009	20.0	10.7
2010	20.8	12.0
2011	20.2	14.0
2012	19.9	13.8
2013	20.0	14.2

This measure represents the electrical operating and maintenance expense (excluding fuel and purchased power), as defined by the FERC code of accounts, expressed on a per MWh of total energy sold basis and adjusted for inflation. Total energy sold includes sales according to retail rate schedules, and sales for resale, such as sales to other distribution companies, sales to retailers, and energy interchanged through the power system (usually through transmission facilities).

B-9

The trend line for the U.S. utilities shows an upward trend over the period 2004 to 2008, and is flat thereafter. The U.S. utilities' individual 2013 measures varied from approximately \$3 to \$73 per MWh.

The graph shows a stable trend for Newfoundland Power over the period from 2004 to 2007. For 2008 through 2013, the measure primarily reflects material changes in pension and benefit costs, including an increase in costs due to the 2011 change in the accounting treatment of OPEBs costs.



Total Operating Expense per Customer (excluding fuel and purchased power, 2013\$)

Year	U.S. Peer Group Composite	Newfoundland Power
2004	366.70	270.18
2005	395.07	266.11
2006	414.28	265.12
2007	443.33	262.89
2008	464.88	226.14
2009	428.18	237.66
2010	474.00	267.91
2011	453.04	314.77
2012	440.33	310.65
2013	446.31	321.12

This measure represents the electrical operating and maintenance expense (excluding fuel and purchased power), as defined by the FERC code of accounts, expressed on a customer account basis and adjusted for inflation.

The trend line for the U.S. utilities shows an upward trend through 2008 and variability thereafter. The U.S. utilities' individual measures varied from approximately \$28 to approximately \$815 in 2013.

The graph shows a stable trend for Newfoundland Power over the period from 2004 to 2007. For 2008 through 2013, the measure primarily reflects material changes in pension and benefit costs, including an increase in costs due to the 2011 change in the accounting treatment of OPEBs costs.

Appendix C

List of Companies Included in U.S. Utility Peer Group

Company	Number of Customers	Sales (MWh)	% Production of Total O & M	% Transmission of Total O & M
Atlantic City Electric Company	543,918	9,230,647	13.2%	4.6%
Bangor Hydro-Electric Company	135,308	1,533,483	6.3%	88.2%
Central Hudson Gas & Electric Corporation	252,539	2,706,701	1.4%	5.0%
Ameren Illinois Company ¹	1,222,570	36,981,248	0.0%	8.4%
Central Vermont Public Service Corporation ²	·	I		
Unitil Energy Systems, Inc.	77,163	1,230,461	0.4%	48.7%
Delmarva Power & Light Company	504,496	12,470,035	4.6%	6.0%
Duquesne Light Company	590,346	13,983,050	0.0%	4.7%
Green Mountain Power Corporation ²	258,873	4,348,322	13.9%	42.8%
Illinois Power Company ¹	I	I		
Kingsport Power Company	47,265	2,045,738	0.0%	6.0%
Metropolitan Edison Company	554,596	13,843,814	0.0%	16.1%
The Narragansett Electric Company	492,039	5,093,236	0.0%	17.1%
New York State Electric & Gas Corporation	881,659	15,476,027	5.0%	9.6%
Orange and Rockland Utilities, Inc.	225,992	4,003,207	0.4%	7.0%
Rockland Electric Company	72,675	1,642,857	0.0%	3.5%
Duke Energy Kentucky Inc.	137,115	4,032,604	146.8%	10.6%
West Penn Power Company	717,894	20,020,657	0.0%	25.2%
Western Massachusetts Electric Company	206,891	3,683,012	0.2%	6.1%
Wheeling Power Company	41,295	2,703,781	0.0%	10.1%

Companies Included in U.S. Utility Peer Group (2013 Information) CA-NP-045, Attachment A Page 28 of 28

As a result of a merger in 2010, Illinois Power Company became part of Ameren Illinois Company. Central Vermont was merged with Green Mountain Power in 2013. 7 7