

# Powering Entrepreneurship

## *Small business perspectives on power utilities and the cost of electricity in Atlantic Canada*

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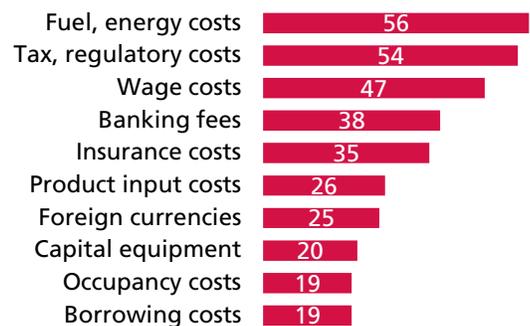
Atlantic Canada's energy rates are a major constraint on the profitability of small businesses. More than three quarters of small business owners in the region have seen a moderate or large increase in their total energy costs over the last three years. The cross-subsidization of energy rates and the challenges faced by power utilities, including large corporate debt and aging assets and infrastructure, have made the consumption of electricity by small- and medium- size enterprises (SMEs) more expensive. Accordingly, provincial governments and power utilities need to reduce the cost of power and promote energy efficiency to help small businesses cope.

### Introduction

The Canadian Federation of Independent Business (CFIB) releases a Business Barometer every month that examines the current state of business. Each month the cost of energy is frequently listed as a major cost constraint for small businesses in the Atlantic region (see Figure 1). It is a common concern for small businesses because the cost of energy is undermining the ability to grow and create jobs. While some are able to recoup the added costs through price increases, this is not always an option for all firms.

Figure 1

### Energy costs – top concern for small businesses in the Atlantic region (% response)



Source: CFIB Calculations based on monthly Business Barometer survey, August 2015 data

With small businesses reporting that their energy costs have increased over the past three years, there is little hope this concern will fade soon, especially in a context where each of the Atlantic provinces' power utilities face several challenges.

Atlantic Canada has a diversified energy sector. Hydro, coal, oil, nuclear, and wind are the main sources of energy in this region. Power is facilitated by five major utility companies: NB Power, Nova Scotia Power, Newfoundland Power, Newfoundland and Labrador Hydro, and Maritime Electric (PEI). Each company is striving to increase generation capacity by investing in energy projects and has had to adapt to variation in social and economic circumstances and energy policies.<sup>1</sup> For small businesses, the financial challenges faced by utilities are also a big concern as they contribute to upward pressure on their energy costs.

## Methodology

CFIB surveyed its Atlantic members to establish a profile of energy use and costs for businesses in the Atlantic provinces; to analyze the impact energy costs have on their operations; to measure and compare attitudes of business owners towards the five Atlantic power utilities; and to understand their perspectives on energy efficiency, alternate sources of energy and other solutions to their energy needs.

The discussion about energy in the region often relates to electricity generation. Electricity – whether from fossil fuels, nuclear, renewable fuels, or other sources – is one of the most widely used forms of energy by residential, commercial and industrial customers.<sup>2</sup> Therefore, electricity will be the main focus of this report.

The CFIB survey on energy use and energy efficiency was conducted in Atlantic Canada by

<sup>1</sup> Martillac Limited and Thompson & Associates, "Atlantic Energy Gateway Report on Regional Electricity System Operations", *Atlantic Energy Gateway* (2012): 27 (Martillac).

<sup>2</sup> Grassroots Marketing Alliance, *What is Energy?* Internet. Accessed 17 June 2015.

password protected e-mail. The survey period was from February 17 to March 31, 2015. A total of 482 owners of small- and medium-sized businesses participated, which corresponds to an overall margin of error of  $\pm 4.5$  per cent, 19 times out of 20. There were 188 New Brunswick small business owners who responded, 192 in Nova Scotia, 58 in Newfoundland and Labrador, and 44 in Prince Edward Island.

CFIB also conducted a series of telephone interviews on electricity rates and energy efficiency in Atlantic Canada. The interview period was from July 7 to July 17, 2015. A total of 246 owners of small- and medium-sized businesses participated. In terms of participants, there were 64 from New Brunswick, 57 in Nova Scotia, 67 in Newfoundland and Labrador, and 58 in Prince Edward Island.

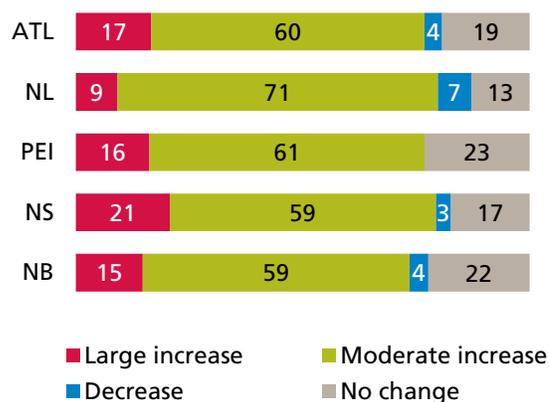
## Small Business Views

### Energy Costs

In Atlantic Canada, small businesses have noted a significant change in their energy costs.

Figure 2

### Trends in Total Business Energy Costs during the Past Three Years (% response)



Source: CFIB, *Energy Uses and Energy Efficiency Survey, February – March 2015*, n=482.

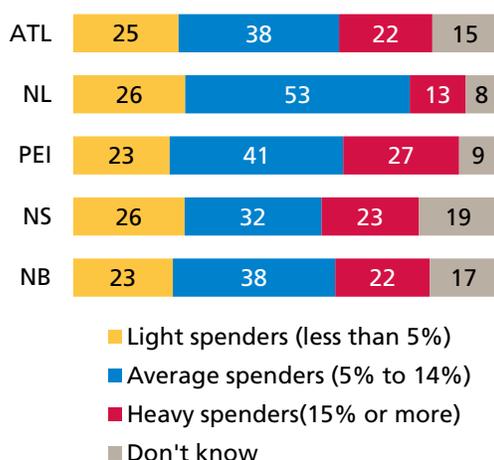
Sixty per cent of small business owners have seen a moderate increase (5 to 19 per cent), and 17 per cent have seen a large increase (20

per cent or more), in their total business energy costs during the past three years (see Figure 2). Among the four provinces, small businesses in Nova Scotia were more likely to have faced a large increase.

A large portion of small business costs is spent on energy. Twenty-two per cent of small business owners are heavy spenders (15 per cent or more of their business costs), 38 per cent are average spenders (5 to 14 per cent of their business costs), and 25 per cent are light spenders (less than 5 per cent of their business costs) (see Figure 3). Light spenders are often owners of small retail stores or are professional service providers that only require minimal energy in comparison to large spenders who often run construction or transportation companies.

Figure 3

### Distribution of Total Business Costs Spent on Energy (% response)



Source: CFIB, Energy Uses and Energy Efficiency Survey, February – March 2015, n=482.

Heating accounts for the highest level of energy consumption in two-thirds of SMEs. Almost equal shares of businesses – about one-quarter – indicate either business operations such as machinery, refrigeration, and running production lines or transportation needs or running the building (lighting, air conditioning, office equipment) as consuming the most energy. Ten per cent of businesses see heating water as the biggest energy use.

About two-thirds of businesses indicated the main reason behind increases in energy costs

during the past three years has been mainly a change in the price of energy. Only about one-in-four business owners said that a balanced combination of change in price and quantity of energy used is behind the change in their business energy costs. A meagre six per cent of respondents see a change in the quantity of energy used causing the increase in their business energy costs.

The impact of high energy costs vary from one small business to another. Among the business owners who have experienced a large or moderate increase in costs during the past three years, 74 per cent had a loss of profits (see Figure 4). Forty-four per cent of businesses had to increase their prices in order to pay for high energy costs, and 31 per cent of businesses had to put their business investments on hold. In many cases these impacts are detrimental to the local economy, the community and the employees.

Figure 4

### Impact of the Increase in Energy Costs on SMEs (% response)



Source: CFIB, Energy Uses and Energy Efficiency Survey, February – March 2015, n=445.

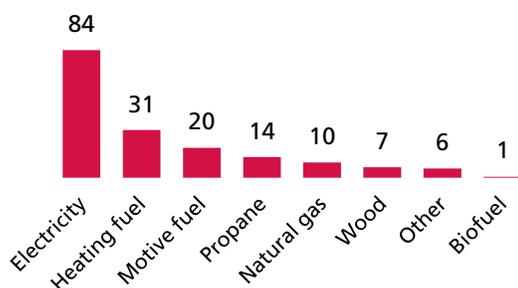
Note: The question was responded only by those who said that they had seen “large increase”, “moderate increase”, and “no significant change” in energy costs during the past three years.

## Main Source of Energy

There are various energy sources used in Atlantic Canada. Of these sources, 84 per cent of small business owners use electricity as the main source of energy in their business (see Figure 5).

Figure 5

### Energy Sources Used by SMEs in Atlantic Canada (% response)

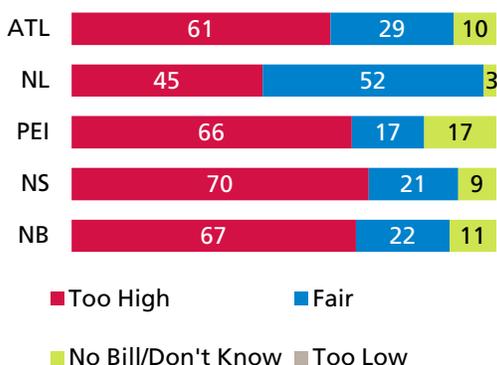


Source: CFIB, *Energy Uses and Energy Efficiency Survey*, February – March 2015, n=482.

About two-thirds of small businesses in Atlantic Canada feel their electricity bills are too high, while 29 per cent consider their electricity bills are fair (see Figure 6). Business operators in Nova Scotia are more likely to judge their electricity bills too high, while owners in Newfoundland and Labrador are the most likely to think their electricity bills are fair.

Figure 6

### SMEs Views on their Business' Electricity Bill (% response)



Source: CFIB, *Electricity Rates and Energy Efficiency Interviews*, July 2015, n=246.

High electricity rates constrain the growth of small business. In general, small businesses

pay between 0.5 to 3.25 cents per kilowatt hour more than residential customers in Atlantic Canada.<sup>3</sup> They are also subject to high demand charges (except NS) on top of their energy charges and service charges. Accordingly, small business owners can pay as much as 20 per cent more than their actual costs of service.<sup>4</sup> This is due to the cross-subsidization of rate classes. Cross-subsidization is the practice of charging higher prices to one group of consumers in order to subsidize lower prices for another group.<sup>5</sup> Cross-subsidization currently exists in all provinces in Atlantic Canada in varying degrees. In Nova Scotia the practice exists largely to subsidize lower costs for large power users only, while in the other three provinces, small power customers are subsidizing both residential users and larger users of electricity.

#### Types of Utility Charges

**Demand Charge:** Demand is the measure of power required at any one point in time. The electric meter will record the highest demand that is reached. Usually, the residential class does not pay demand charges.

**Energy Charge:** A rate applied to the kilowatt hours consumed. This charge is related to the cost of generated or purchased energy.

**Service Charge:** A fixed base charge for electricity service. Usually, the residential class and small power (general service, small commercial classes) pay this charge to cover the cost and the maintenance of the utility's equipment.

The power utilities categorize small businesses in separate rate classes (general service, small commercial customers, or small industrial). In all four provinces, these classes are paying

<sup>3</sup> NB Power Charts, *Business and Residential Comparisons*. October 2014. Internet. Accessed 2 June 2015 (NB Power).

<sup>4</sup> Atlantic averages based on the revenue-cost ratio from the public utilities (data not available for PEI).

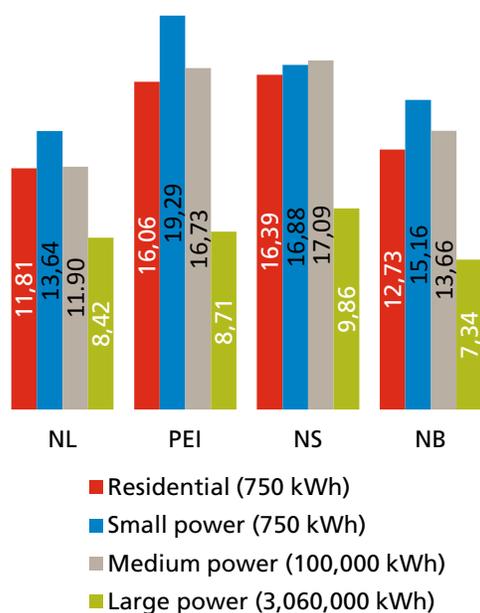
<sup>5</sup> Zhijun Chen and Patrick Rey, "Competitive Cross-Subsidization", *Working Papers* (2013): 1.

higher costs for the electricity they use in comparison to medium or large power users.

Based on a study done in 2014 by Hydro Quebec, one can see the average price per kWh paid by various classes in several provinces (see Figure 7). To calculate the average price per kWh, the report looked at the monthly bill for a standard amount of electricity and then divided the total by the total usage of kW in that particular month. This methodology includes service charges, demand charges and other charges specific to that ratepayer in the province.

Figure 7

### Average Prices per kWh (\$) in 2014



Source: Hydro Québec, *Comparison of Electricity Prices in North American Cities*, April 2014.

Note: These bills have been estimated by Hydro-Québec and may differ from actual bills.

For Newfoundland and Labrador customers, the bills are estimated based on Newfoundland Power rates. The report estimates bills in various cities. For the purpose of this report, it is assumed that Charlottetown estimates apply to all PEI customers, Halifax estimates apply to all Nova Scotia customers, Moncton estimates apply to all New Brunswick customers, and St. John's estimates apply to all Newfoundland and Labrador customers.

For residential customers, the numbers in the chart are based on bills estimated for a consumption level of 750kWh. (page 33)

The small power bill estimates used in this chart are for a consumption level of 750kWh, a power demand of 6k and a load factor of 17%. (page 39)

The medium power bill estimates used in this chart are for a consumption level of 100,000 kWh, a power demand of 500 kW and a load factor of 28%. (page 45)

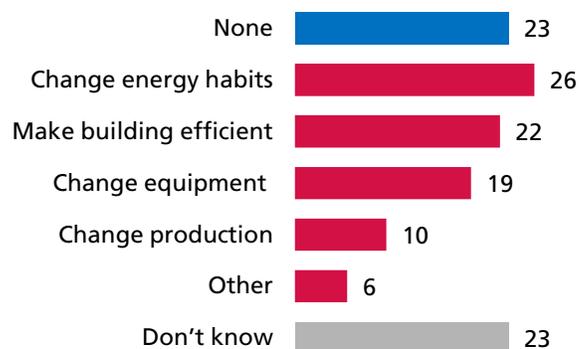
The large power bill estimates used in this chart are for a consumption level of 3,060,000 kWh, a power demand of 5,000 kW, load factor of 85% and voltage of 25 kV. (page 51)

### Energy-Efficiency

Small business energy efficiency should be a priority of all stakeholders involved due to rising electricity costs. Over the next three years, 26 per cent of small business owners intend to change their energy consumption habits (see figure 8). About 23 per cent of owners are uncertain about what energy efficiency measures they are going to implement in their business. Owners who run their operations in their own buildings are more inclined to invest in energy efficiency programs, and business owners who do not own the building are more likely to change consumption habits.

Figure 8

### Energy Efficiency Measures that will be implemented during the next three years (% response)



Source: CFIB, *Energy Uses and Energy Efficiency Survey*, February – March 2015, n=482.

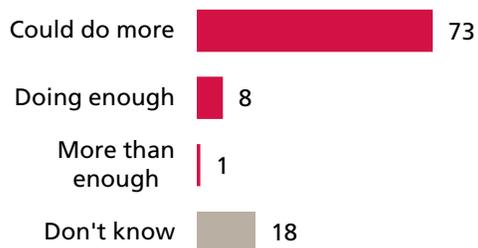
A net metering program provides customers with the option to connect their own renewable energy generation system to the utility's distribution system allowing them to generate some or all of their electricity providing a credit towards their energy costs. About 40 per cent of respondents indicated

that they would be very likely or somewhat likely to adopt a net metering program, while 38 per cent said they would be unlikely to consider net metering, and another 20 per cent were undecided. Businesses operating in New Brunswick are the most likely to consider adopting net metering, while businesses in PEI are the least likely. Businesses operating in agriculture and natural resources are the most open to considering adopting net metering. The smaller the business, the least likely it is to be considering net metering and vice-versa.

Energy efficiency measures can be expensive investments for small business owners without access to energy efficiency programs. If programs are available, business owners often lack information about these programs. For example, 73 per cent of small business owners believe the provincial government could do more to promote and improve energy efficiency (see Figure 9).

Figure 9

### Is the Provincial Government Doing Enough to Promote and Improve Energy Efficiency? (% response)



Source: CFIB, *Energy Uses and Energy Efficiency Survey*, February – March 2015, n=482.

In addition to the Survey on Energy Use and Energy Efficiency, CFIB conducted a series of telephone interviews to gather more information on what measures or programs would help improve the energy efficiency of small- and medium- sized businesses. In total, there were 246 interviews conducted in the four Atlantic provinces. In order to become more energy efficient, business owners want:

- Programs that help with using less electricity;
- Programs that help businesses change to a different source of energy;

- Tax credits/rebates/reimbursements for upgrades;
- Reduced prices for electricity or matching residential rates.

For example, a member operating in NB wants the province to advance the use of Smart Grid Technologies, a member with operations in PEI wants to see matching grants for insulation, windows, and efficient lighting, a business owner running his firm in NL wants financial help to build a new energy efficient building and a member from NS would like the criteria for applying for programs offered by Efficiency Nova Scotia to be less complex and more transparent. For detailed results, see Appendix 1.

## Newfoundland & Labrador Electricity Market Profile

Newfoundland & Labrador (NL) aspires to be an energy warehouse based on its oil, natural gas, hydroelectricity, and wind resources.<sup>6</sup> This gives NL the opportunity to export a large amount of its electricity. NL has an arrangement with Quebec related to the Upper Churchill project that will expire in 2041. The agreement is a contentious issue in NL and has a great influence on any discussion about hydro development in the province. An ongoing concern for many business owners and residents alike in NL is the reliability of the electricity system, particularly since January 2014 when widespread power outages and rolling brown-outs occurred.

### Main Generating Stations

Upper Churchill Falls – Hydro (5428 MW)
Bay d’Espoir – Hydro (604 MW)
Holyrood Thermal – Fuel Oil (490 MW)
Twin Falls – Hydro (225 MW)

The sale, development, generation, and transmission of electricity, is overseen by NL’s energy crown corporation, Nalcor.<sup>7</sup> The

<sup>6</sup> Newfoundland and Labrador’s Energy Plan, “Focusing our Energy” (2014) at 11.

<sup>7</sup> Martillac *supra* note 1, at 13.

province also has two main power utilities: NL Hydro and Newfoundland Power.

NL Hydro is a regulated utility within the Nalcor group. As the primary generator of electricity, the utility has 38 generating stations with a capacity of 1792 MW. In total, NL Hydro reaches over 38,000 customers.<sup>8</sup>

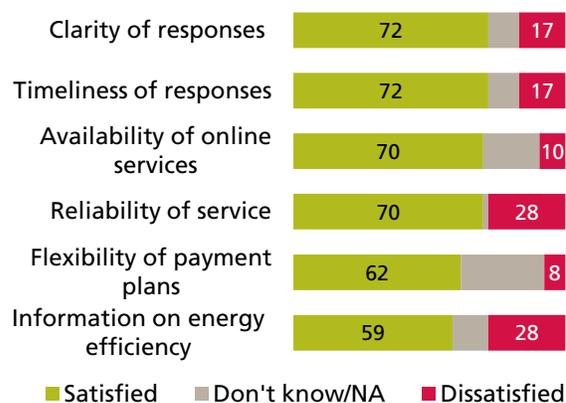
One of NL Hydro's clients is Newfoundland Power (Fortis Inc.). Newfoundland Power purchases 93 per cent of its electricity from NL Hydro. This electricity is supplied to the island portion of Newfoundland and Labrador. The remainder of the island's electricity comes from Newfoundland Power's 28 generating stations. In total, the utility's distribution lines reach 256,000 customers.<sup>9</sup>

#### *SME sentiment toward NL Utilities*

Overall, business owners are mostly satisfied with NL Hydro and Newfoundland Power. They are most satisfied with the clarity and timeliness of responses, and least satisfied with the information provided regarding energy efficiency and reliability of service (see Figure 10).

Figure 10

### Small Businesses' Satisfaction with NL Power Utilities



Source: CFIB, *Energy Uses and Energy Efficiency Survey, February – March 2015, NL, n=52.*

<sup>8</sup> Newfoundland Labrador Hydro, *NL Hydro*. 2015. Internet. Accessed 14 July 2015.

<sup>9</sup> Newfoundland Power, *NL Power*. 2015. Internet. Accessed 14 July 2015.

#### *Future Projects*

Nalcor's main projects are to create two dams that generate hydroelectricity at Lower Churchill Falls. Muskrat Falls (824 MW) is currently under construction and first power is expected by 2018. Emera (NS) has also invested in Muskrat Falls to secure 165 MW of hydroelectricity. Nalcor's second project is Gull Island (2,250 MW). No in-service date has been picked and costs for the project are estimated to be \$12 billion.<sup>10</sup>

#### *Electricity Rates*

NL Hydro categorize small business owners (except industrial) as general service customers (0- 100 kW). Per billing period, NL Hydro charges small businesses a demand charge of \$9.10 per kW in the months of December to March (\$6.60 per kW in all other months), and an energy charge of 10.53 cents (for the first 3,500 kWh used), on top of a \$21.93 service charge.<sup>11</sup>

Similar to NL Hydro, Newfoundland Power charges small businesses a demand charge of \$9.10 per kW in the months of December to March (\$6.60 per kW in all other months), and an energy charge of 10.53 cents (for the first 3500 kWh used), on top of a \$21.93 service charge.<sup>12</sup> On average, a small business owner pays about \$264.46 a month for the use of 2000 kWh, whereas a residential customer would only pay about \$212.58.<sup>13</sup> However, small businesses are paying \$1.08, and residents are paying 0.96 cents for each dollar that is spent on electricity.<sup>14</sup>

<sup>10</sup> CBC News, *Ontario eyeing Lower Churchill hydroelectric power from Labrador*. 2015. Internet. Accessed 22 July 2015.

<sup>11</sup> Newfoundland and Labrador Hydro, *Current rates* (July 1 2015).

<sup>12</sup> Newfoundland Power, "Schedule of Rates, Rules and Regulation" (2015).

<sup>13</sup> Hydro Québec, *Comparison of Electricity Prices in North American Cities*, April 2014. Internet. (Hydro), p. 33 and p. 39 .

<sup>14</sup> Newfoundland Power, "2013-2014 General Rate Review, *Public Utilities Board of NL* (2014).

## Challenges

Small businesses are being over charged for their power rates. In total, NL businesses are paying eight per cent more than their actual cost of service.<sup>15</sup> This is concerning for small business owners as 70 per cent of businesses have seen a moderate increase (5 to 19 per cent) in their total business costs, and 62 per cent of businesses have lost profits due to the increase in their business energy costs over the past three years.<sup>16</sup> As in other jurisdictions, the cross-subsidization of electricity rates is a major issue experienced by NL small businesses.

Forecasted project costs for Muskrat Falls have skyrocketed to \$7.65 billion<sup>17</sup>, which is up from \$6.2 billion projected at project sanction in 2012, an increase of 23 per cent.<sup>18</sup> Ratepayers will be paying for these cost overruns and since the project remains unfinished, costs could continue to rise.

*More needs doing to cut energy costs. It is a big cost going forward.*

NL Member, manufacturer

## Energy Efficiency

Both power utilities deliver the “Take Charge” program for small businesses to save energy. The program offers product rebates on lighting, thermostats, occupancy sensors, and audit incentives of up to 80 per cent in return.<sup>19</sup> Yet, these programs seem to be poorly advertised, as 76 per cent of businesses are unaware of any energy efficiency programs, and 24 per cent of businesses did not want to use these programs (see Figure

<sup>15</sup> *Ibid.*

<sup>16</sup> CFIB, Energy Uses and Energy Efficiency Survey, February – March 2015, NL Responses, n=58 (NL).

<sup>17</sup> Nalcor Energy, “Nalcor Energy provides update on the Muskrat Falls project.” 2015. Internet. Accessed. 29 September 2015.

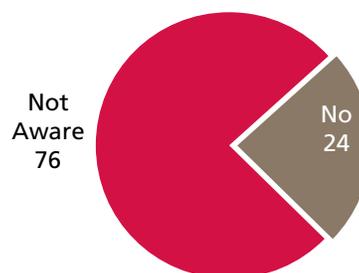
<sup>18</sup> Executive Council. *MHI Analysis*. 2012. Internet. Accessed. 17 July 2015.

<sup>19</sup> Newfoundland and Labrador, *Take Charge NL*. Internet. Accessed 7 July 2015.

11). However, the provincial government has recently announced a net-metering policy that will allow small businesses to generate power from renewable sources for their own consumption.

Figure 11

## Business Use of Programs or Grants to Implement Energy Efficiency Measures (% response)



Source: CFIB, Energy Uses and Energy Efficiency Survey, February – March 2015, NL, n=58.

## Recommendations

Based on NL members’ feedback on electricity use, impact of rate increases on small firms, and the willingness and interest of small firms for becoming more energy efficient, CFIB is recommending the following:

### Improving Demand Side Management

**Recommendation #1: The Newfoundland and Labrador government needs to alleviate the burden that is being placed on small businesses now and into the future.**

The costs of the Muskrat Falls project have been escalating exponentially. Hence, ratepayers are now bracing for substantial rate increases. These rate increases will be an issue for small businesses until the project is paid off in 2030. Further, demand charges have a significant effect on the value of a small business owner’s electricity bill. The provincial government must come up with strategies to alleviate the rate-shock that could translate into end-of-business decisions for many small firms.

### *Building Partnerships*

**Recommendation #2: The Newfoundland and Labrador government needs to consider the initiation of a partnership with small business owners on how best to achieve improved energy efficiency.**

There are a number of entities (which includes, but may not be limited to, the Office of Climate Change and Energy Efficiency, the Department of Finance, and the provincial power utilities) who have some responsibility for energy efficiency in NL. Small business owners in the province feel that more can be done to promote and improve energy efficiency. Initiating a partnership with small business owners will allow for the development of energy efficiency programs that reflect the realities of running a small business.

### *Reducing Cross-subsidization*

**Recommendation #3: The provincial power utilities need to address and fix the issue of cross-subsidization of rate classes, by ensuring the revenue-to-cost ratio remains between 0.95 to 1.05, so that small businesses are not funding the energy use of larger industrial companies or residential customers.**

NL small businesses are paying above the real cost of electricity in comparison to residential and large industrial customers who pay less than the actual cost. This is highly unfair for SMEs as they end up paying for the electricity used by other customers. It also distorts the benefits of energy efficiency for residents and large industrial customers. Most SMEs operate on razor-thin profit margins and their ability to grow, invest in equipment and in staff is harmed by this unfair practice of cross-subsidization. Small businesses recommend the utilities in NL stop this practice and charge equitably across each class of ratepayers.

## Prince Edward Island Electricity Market Profile

Maritime Electric is an indirect privately-owned subsidiary of Fortis Inc, and has been PEI's largest power utility<sup>20</sup> since 1956.<sup>21</sup> The primary source of electricity supply was originally from the Charlottetown Thermal Plant but Maritime Electric required a more stable source of electricity. In 1977, Maritime Electric signed a Power Purchase Agreement with NB Power to provide the island with 80 per cent of its energy requirements.<sup>22</sup> The deal required the PEI government to build two submarine cables under the Northumberland Strait to transfer electricity generated by oil and nuclear sources in New Brunswick. Those cables have been the province's main source of electricity for the last 38 years.

In recent years, Maritime Electric has been purchasing power from wind farms. Wind generation meets up to 18 per cent of the province's electricity supply.<sup>23</sup> However, wind is not always at the speed necessary to produce full turbine output.

### Main Energy Sources<sup>24</sup>

NB Power – Submarine Cables (200 MW)  
Charlottetown Thermal – Fuel Oil (112 MW)  
West Cape Wind Farm – Wind (52 MW)  
Borden – Diesel (42 MW)

Including all energy sources, Maritime Electric serves approx. 78,000 customers.<sup>25</sup> The peak electricity load exceeds 200 MW and the total annual electric consumption is about 1.1 million MWh.<sup>26</sup>

<sup>20</sup> *The City of Summerside currently operates its own electrical utility.*

<sup>21</sup> PEI Energy Commission, "Final Report: Charting our Electricity Future" (2012) at 5 (Commission).

<sup>22</sup> *Ibid* at 13.

<sup>23</sup> Maritime Electric, *Our Island Electricity*. 2015. Internet. Accessed 6 July 2015 (Maritime).

<sup>24</sup> *Charlottetown and Borden Generating Stations are kept on standby for backup.*

<sup>25</sup> Fortis Inc. "2014 Annual Report" (2014) at 10.

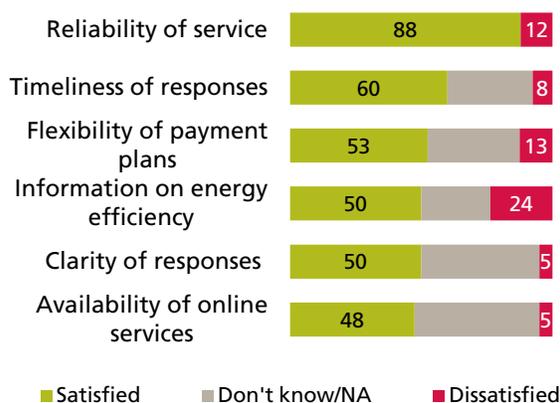
<sup>26</sup> Tracey Allen, *PEI Energy Commission*. 2012. Internet. Accessed 7 July 2015.

### *SME sentiment toward Maritime Electric*

Maritime Electric fared average in satisfying the needs of small businesses (see Figure 12). Almost all SME owners are satisfied with the reliability of service. However, only about half of owners are satisfied with the availability of online services, flexibility of payment plans and availability of energy efficiency information.

Figure 12

### Small Businesses' Satisfaction with Maritime Electric



Source: CFIB, *Energy Uses and Energy Efficiency Survey*, February – March 2015, PEI, n=40.

### *Future Projects*

The submarine cables are PEI's top electricity infrastructure priority because the cables will exceed their life expectancy in 10 years. Two new submarine cables (360 MW) will be built between PEI and NB by the end of 2016. The cables will cost between \$120 million and \$140 million, with the bill being split between the federal and provincial governments.<sup>27</sup> The cables will be owned by the province, and operated by Maritime Electric. With the current Power Purchase Agreement with NB Power set to expire in 2016, government is currently in negotiations with potential suppliers.

Recently, the province announced plans to purchase a new power generator in order to meet increasing energy demands. The new

<sup>27</sup> The Journal Pioneer, *Price for PEI power cables \$50 million less than expected*. 2015. Accessed 8 July 2015.

generator will save ratepayers \$30 million over a similar proposal made by Maritime Electric because the province is able to finance the project at a lower rate and the assets would not be subject to Maritime Electric's guaranteed rate of return (9.75 per cent).<sup>28</sup>

There is currently some debate between the utility and the provincial government about Maritime Electric's future role in owning generating assets. Recent moves by the province to own the assets to lease to Maritime Electric follows a recommendation made in the PEI Energy Commission 2012 report *Charting our Electricity Future* which advised that government (through the PEI Energy Corporation) should own assets for generating purposes in order to eliminate them from the returns currently guaranteed to the utility and its investors.

### *Electricity Rates*

Maritime Electric categorizes small businesses (except industrial) as general service customers. Per billing period, small businesses are expected to pay a demand charge of \$13.43 per kW (after the use of 20 kW), and an energy charge of 16.25 cents per kWh (for the first 5000 kWh used), on top of a \$24.57 monthly service charge.<sup>29</sup> On average, a small business owner pays about \$344.77 a month for the use of 2000 kWh in PEI, whereas a residential customer would only pay about \$280.17.<sup>30</sup>

### *Challenges*

Islanders pay some of the highest electricity rates in the country. Even though in 2011, the province cut rates by 14 per cent, and froze the rates for 2 years to cut the extra costs that were being paid by ratepayers, rates are continuing to rise.<sup>31</sup> Since 2013, Maritime Electric has increased their rates by 7 per

<sup>28</sup> The Guardian, *PEI Government buying \$50 million power generator*. 2015. Accessed 8 July 2015.

<sup>29</sup> Maritime *supra* note 23.

<sup>30</sup> Hydro *supra* note 13, p.33 and p.39.

<sup>31</sup> CBC News, *PEI to assume Maritime Electric debt*. 2010. Internet. Accessed 9 July 2015.

cent.<sup>32</sup> Moreover, these rate increases hurt small businesses because they already subsidize the rates paid by other rate classes. These high energy costs have meant that 87 per cent of small businesses have had lower profits, and 47 per cent had to increase their prices during the last three years (see Figure 13).

At the end of October 2015, Maritime Electric filed with the Island Regulatory and Appeals Commission (IRAC) for new rate increases starting on March 1, 2016. For the average business (general service category), the increase could vary from 1.6 per cent to 2.7 per cent (or slightly more) depending on their total electricity usage and their demand profile.<sup>33</sup>

Figure 13

### Impact of the Increase in Energy Costs on SMEs (% response)



Source: CFIB, *Energy Uses and Energy Efficiency Survey, February – March 2015, PEI Responses, n=44.*

### Energy Efficiency

In 2004, the provincial government introduced the *Renewable Energy Act*. The act required Maritime Electric to file a Demand Side Management (DSM) plan with IRAC. However, IRAC terminated the DSM plan for the years of 2011 to 2015 because changes were made to the act which gave responsibility to the government.<sup>34</sup> This placed the DSM plan in the hands of the Office of Energy Efficiency (OEE). Nevertheless, Maritime Electric has applied for

approval from IRAC to have a DSM plan for 2015-2020. The plan includes rebates on LED lights, grants for heat pumps, incentives for thermostat shut off, and customer outreach activities. There will be a pilot phase for 2016 in order to have full implementation of these DSM measures.<sup>35</sup>

Currently, the OEE's role is to help Islanders, including small businesses, reduce their energy consumption by providing programs and services.<sup>36</sup> But, the OEE only offers one program for small businesses which is an energy audit to determine energy efficiency upgrades.<sup>37</sup> This means the building has to be owned and require upgrades. Given the OEE's and Maritime Electric's mandate, both should coordinate to better address the energy needs of small businesses on the Island.

## Recommendations

Based on PEI members' feedback on electricity use, impact of rate increases on small firms, and the willingness and interest of small firms for becoming more energy efficient, CFIB is recommending the following:

### *Improving Oversight*

**Recommendation #1: By 2017, the rate hearing process needs to be improved with the Island Regulatory and Appeals Commission (IRAC) to ensure greater transparency and accountability.**

Island Regulatory and Appeals Commission (IRAC) is responsible for approving rate increases before Maritime Electric can pass them onto consumers, and regulates the power utility's activities. But, information is highly technical; there are limited opportunities for the public to participate and very little transparency about the cost drivers of energy or regular use revenue- to- cost ratios showing

<sup>32</sup> The Guardian, *PEI electricity rates to rise 2.2 per cent*. 2015. Internet. Accessed 9 July 2015.

<sup>33</sup> Maritime Electric website, Regulatory Filing on 10/28/2015, accessed 29 October 2015, Schedules 16-3 and 16-4, page 151-152

<sup>34</sup> Commission *supra* note 21, at p.43.

<sup>35</sup> PEI Regulatory & Appeals Commission, "Maritime Electric Company Limited DSM Filing" *Notice of Application* (2015).

<sup>36</sup> PEI Energy Cooperation, "Securing our Future: Energy Efficiency and Conservation" at 14.

<sup>37</sup> *Commercial Sector and Institutional Buildings Program for Energy Incentives (CSIPEI)*.

how much each rate class is paying compared to their cost of service.

The PEI Energy report, *Charting our Electricity Future*, highlighted the need to improve the regulatory oversight of Maritime Electric by establishing a new panel of commissioners to deal solely with electricity regulation. While IRAC does staff one analyst who has expertise in the Electric Power Act, this does not provide sufficient oversight to scrutinize such an important and significant cost for Islanders and local businesses.

In other provinces, utilities are subject to public hearings to ensure that all energy issues are heard by the Board before a decision is made to increase rates. The Board's decision must reflect the interests of all rate classes. However, these types of public hearings do not occur in PEI.

While such expertise and rigor cannot be established overnight, CFIB believes that 2017 is a realistic timeline for the government to set greater oversight and increased transparency for electricity rates.

**Recommendation #2: As part of an improved rate hearing process, the Government of Prince Edward Island needs to appoint a small business advocate to represent general service customers at energy rate hearings.**

In 2012, it was recommended in the PEI Energy report, *Charting our Electricity Future*, that the government establish a consumer advocate for electricity. On behalf of ratepayers, the consumer advocate would challenge submissions of Maritime Electric. But this position has never been established.

Nova Scotia, in addition to having a consumer advocate, created the position of Small Business Advocate. This role was established given that small businesses pay the highest electricity rates and the Consumer Advocate position struggled to represent both residential customers and those in the general service category. As part of the improved oversight with IRAC, PEI should adopt the NS model and have a small business advocate to

ensure adequate representation of small businesses.

### *Reducing Cross-subsidization*

**Recommendation #3: Over the next 5 to 10 years, Maritime Electric needs to address and fix the issue of cross-subsidization of rate classes, by ensuring that the revenue-to-cost ratio remains between 0.95 to 1.05, so that small businesses are not funding the energy use of larger industrial companies or residential customers.**

With the limited financial information available from Maritime Electric, it is hard to determine how much small businesses are paying above the actual cost of service for their electricity. Small businesses that use 750kWh of electricity pay 19.29 cents per kWh, whereas residential customers only pay 16.06 cents per kWh for the same amount of electricity used. The large discrepancy in electricity rates highlights the issue of cross-subsidization for Island small businesses.

While it is difficult to ensure that everyone pays exactly the cost of providing service, a benchmark that has proven reasonable in other provinces has been that no rate category can pay less than 95 per cent of the cost of service and no category can pay more than 105 per cent of their cost of service.

### *Improving Demand Side Management*

**Recommendation #4: In the next year, Maritime Electric and/or the Office of Energy Efficiency need to better address the needs of small businesses when it comes to energy efficiency.**

Currently, the PEI Office of Energy Efficiency (OEE) offers one energy efficiency program for small businesses. It is an energy audit incentive to determine what energy efficiency upgrades are needed in the owners' buildings. However, Maritime Electric has recently submitted a demand side management plan for 2015 to 2020. The program provides incentives and rebates for LED lights, heat pumps, and thermostats. But, not all small businesses can benefit from these programs unless they use these specific products. For

instance, it would be more beneficial for Island businesses if there were Smart Grids to track their peaks of energy used.

## Nova Scotia Electricity Market Profile

Nova Scotia's main power utility is NS Power. It became a privately-owned utility in 1992. NS Power's management argued that private ownership would lead to more stable revenue generation and rates, and better focus on customer service. Essentially, NS Power was privatized so as to reduce the risk of bankruptcy.<sup>38</sup>

In 1999, Nova Scotia Power Holding Inc. was created to be a publicly traded shareholder-owned company, where NS Power was its sole subsidiary. In July 1999, NS Power Holding Inc. became Emera. Until 2005, NS Power was the only source of revenue for Emera, and helped finance the company's growth in new markets. Over time, Emera has grown to become an international energy firm.<sup>39</sup>

NS Power has 31,800 km of power lines that serve about 504,000 customers.<sup>40</sup> 75 per cent of electricity is generated by using coal, petroleum coke, fuel oil, and natural gas. Another 20 per cent stems from renewables generated by wind, hydro, tidal, and biomass.<sup>41</sup> NS Power also exports up to 6 per cent of its annual supply to NB.<sup>42</sup> In total, with a capacity of 2,483 MW, NS Power produces 95 per cent of the electricity consumed in NS.<sup>43</sup>

### Main Generating Stations

Lingan – Coal (600 MW)  
 Tufts Cove – Fuel Oil/Natural Gas (415 MW)  
 Trenton – Coal (307 MW)  
 Point Aconi – Coal (171 MW)  
 Wreck Cove – Hydro (230 MW)

<sup>38</sup> Louis R. Comeau. *Privatization of NS Power*. 2012. Internet. Accessed 21 July 2015.

<sup>39</sup> NS Power. *What Percentage of Nova Scotia's Profits Leave Our Province?*. 2012. Internet. Accessed 21 July 2015 (Profits).

<sup>40</sup> Emera. "Annual Report." (2014) at 20 (Emera).

<sup>41</sup> Nova Scotia. "Electricity Review Report." (2015) at 3.

<sup>42</sup> *Ibid* at 8.

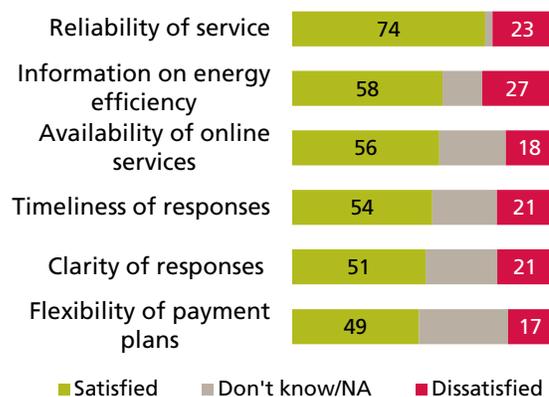
<sup>43</sup> *Emera* supra note 40 at 20.

### SME sentiment toward NS Power

Business owners in Nova Scotia are most satisfied with the reliability of service provided by NS Power, while they are least satisfied with the flexibility of payment plans currently offered by the utility (see Figure 14).

Figure 14

### Small Businesses' Satisfaction with NS Power



Source: CFB, *Energy Uses and Energy Efficiency Survey*, February – March 2015, NS, n=175.

### Future Projects

Emera is in the process of creating the Maritime Link. The link is a submarine cable attached from NL to NS. The cable will provide hydroelectricity from the Lower Churchill Project (2017). Emera signed a contract with Nalcor (NL) for 35 years. The contract outlines that NS will receive 20 per cent (153 MW) of the Muskrat Falls output, and have access to buy surplus electricity.<sup>44</sup> In return, the power utility will be responsible for the total costs of the submarine cable. The project costs are estimated at a total of \$1.56 billion.<sup>45</sup>

The Maritime Link is a main priority for NS Power because the provincial government's Renewable Electricity Standards require NS to have a minimum of 40 per cent of the electricity from renewable sources by 2020.<sup>46</sup> Currently, NS Power emits about 50 per cent of

<sup>44</sup> Emera, *Information & News*. 2015. Internet. Accessed 22 July 2015.

<sup>45</sup> *Ibid*.

<sup>46</sup> *Ibid*.

the province's greenhouse gases from its electricity generation.<sup>47</sup> This is a result of NS Power being overly dependent on coal which has not only risen in price, but it is detrimental to the environment. Accordingly, the amount of pollution must be reduced requiring NS Power to change its type of electricity generation.

Wind farms, such as South Canoe, have also become a priority for NS Power as it strives to reach its target of increasing renewable electricity.

### *Electricity Rates*

NS Power categorizes many small business owners (except industrial) as small general service customers (use less than 32,000 kWh), and some are categorized as general service customers. Per billing period, small general pay an energy charge of 15.77 cents for the first 200 kWh used, and 13.96 cents for all additional kWh, on top of a \$12.65 service charge.<sup>48</sup> However, compared to other jurisdictions, most small businesses do not pay a demand charge in NS. On average, a small business owner pays about \$310.40 for the use of 2000 kWh, which is similar to the amount that residential customers pay at about \$309.77.<sup>49</sup> The creation of a small business advocate who represents small business interests at rate hearings has helped to level the playing field.<sup>50</sup>

### *Challenges*

From 2009 to 2014, there was a 77 per cent increase (8.4 to 14.8 cents/kWh) in electricity rates for Nova Scotians.<sup>51</sup> There were no rate increases in 2015, but many small businesses are still struggling to pay their electrical bills. With the previous rate increases, 70 per cent

of small businesses believe their charges are too high for the amount of electricity used.<sup>52</sup> As a result, 73 per cent of those businesses have lost profits due to these increases in their business energy costs.<sup>53</sup>

*If energy prices keep climbing, it will probably be my downfall.*

NS Member, small grocery

In order to cover the costs of the Maritime Link, Emera estimates that ratepayers will pay 0.95 per cent each year for 5 years from 2018 to 2022.<sup>54</sup> It has not been determined as to how the project will be paid off entirely. For the final decision, the power utility has requested a general rate application before the Utility and Review Board (UARB) in 2017.<sup>55</sup> However, the rate increases associated with the Link's construction do not include any rate increases that NS Power might request in addition to those already requested by Emera for the project.

### *Energy Efficiency*

Funded by ratepayers and government, Efficiency NS was created as an independent energy efficiency utility. In 2015, Efficiency NS became a franchise operated by EfficiencyOne. However, the UARB has decided to give EfficiencyOne \$11 million less than their planned proposed for 2016 to 2018.

Currently, almost forty per cent of Nova Scotians respondents considered that they are not receiving good value for money from Efficiency NS. Only 23 per cent indicated that they are receiving good value for money, while 38 per cent did not know.

<sup>47</sup> Nova Scotia Department of Environment, "A Discussion Paper." (2009) at 4.

<sup>48</sup> Nova Scotia Power, "Approved Electricity Rates and Regulations", Small General Tariff (2015).

<sup>49</sup> Hydro *supra* note 13, p.33 and p.39.

<sup>50</sup> Small business advocate represents small businesses at the Utility and Review board hearings for Nova Scotia.

<sup>51</sup> Ecology Action. *Energy Affordability VS. Rising Electricity Prices.*(2013) Internet. Accessed 22 July 2015.

<sup>52</sup> CFIB, Electricity Rates and Energy Efficiency Survey, July 2015, n=57 (Nova Scotia).

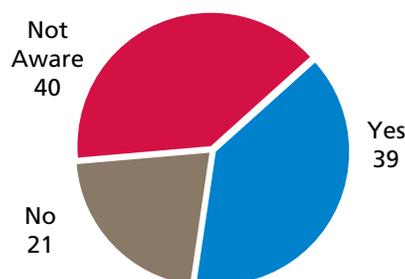
<sup>53</sup> Nova Scotia *supra* note 52.

<sup>54</sup> Emera, "The Maritime Link Project" (2014) at 2.

<sup>55</sup> *Ibid.*

Figure 15

### Business Use of Programs or Grants to Implement Energy Efficiency Measures (% response)



Source: CFIB, *Energy Uses and Energy Efficiency Survey*, February – March 2015, NS, n=192.

However, 40 per cent of businesses are unaware of any energy efficiency programs – much lower than in any other province, and 39 per cent of businesses used programs or grants to improve their energy efficiency – much higher use than in any other Atlantic province. Only 21 per cent of SMEs were aware of these programs but did not use any (see Figure 15).

For small businesses, EfficiencyOne offers efficient rebate programs, custom incentives, and direct installation, among others. Members' comments in the energy survey show some disagree with universal fees for Efficiency NS on electricity bills, which must be paid even if they do not partake in any of the entity's offerings.

## Recommendations

Based on NS members' feedback on electricity use, impact of rate increases on small firms, and the willingness and interest of small firms for becoming more energy efficient, CFIB is recommending the following:

### *Limit Rate Increases*

**Recommendation #1:** The Nova Scotia Utility and Review Board (UARB) needs to ensure rate increases are stable and predictable.

Over the last 6 years, there has been no stability or predictability on energy rates for NS small businesses. NS ratepayers were hit the hardest with energy rate increases compared to other Atlantic provinces, rising 6 cents per kWh. This had a major impact on small businesses as 70 per cent of them already find their electricity bills to be too high based on the amount of energy consumed. However, the project costs of the Maritime Link will also be pushed onto ratepayers. If energy rates are not better controlled, this will cause Nova Scotians to pay some of the highest rates in the country.

Electricity costs are one of the top concerns for small business owners in Nova Scotia. Electricity rates have increased significantly and often over the past decade. One of the major reasons for the electricity rate increases have been the volatile costs of coal and natural gas. NS Power has stated that investments in renewable energy technologies such as wind, hydro, and tidal could stabilize electricity rates and reduce the volatility of electricity costs associated with commodities such as coal and natural gas.

### *Improving Demand Side Management*

**Recommendation #2:** EfficiencyOne needs to better promote and hold education seminars to help small businesses reach their energy efficiency goals.

EfficiencyOne offers many energy efficiency rebates and incentives for small businesses. Every year, the programs result in energy savings for ratepayers. Although EfficiencyOne has been successful in saving energy costs for some small businesses, many small businesses have voiced their concerns that they are unaware of the programming, do not believe they are getting good value for their money, or were denied access to the programming. EfficiencyOne's process to save energy is very technical and should be simplified.

## New Brunswick Electricity Market Profile

The electricity utility serving the province of New Brunswick is NB Power. In 2013, NB Power ended nearly a decade of operations as five separate companies and integrated into a single provincial crown corporation. As the main supplier in NB, the power utility provides about half of NB's electricity, the remainder is supplied from imports.<sup>56</sup> Between 14 facilities, its total generating capacity is 4,678 MW which directly serves approximately 330,000 customers.<sup>57</sup> It also has a transfer capability to NS, and two submarine cables connected to PEI.

### Main Generating Systems

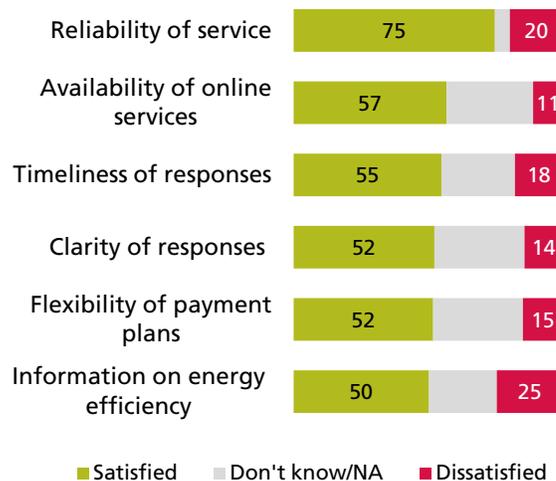
Coleson Cove – Fossil Fuel (972 MW)<sup>58</sup>  
 Mactaquac – Hydro (672 MW)  
 Point Lepreau – Nuclear (660 MW)  
 Belledune – Fossil Fuel (467 MW)  
 Millbank – Diesel (397 MW)

### SME sentiment toward NB Power

Overall, business owners are mostly satisfied with the power utility. They are most satisfied with the reliability of service (no or few power interruptions), while they are the least satisfied with the availability of information on energy efficiency (see Figure 16).

Figure 16

### Small Businesses' Satisfaction with NB Power



Source: CFIB, *Energy Uses and Energy Efficiency Survey*, February – March 2015, NB, n=162.

### Future Projects

As part of NB Power's 10-year (2016 to 2025) plan, a key objective is to have sustainable electricity throughout the province.<sup>59</sup> This means electricity needs to be reasonably priced and environmentally friendly. NB Power plans to have sustainable electricity by investing in new technology, such as smart grids, and by investing in new generating options that use renewable energy.<sup>60</sup> With these changes, NB Power expects to be within the top 25 per cent ("top quartile") of utilities in North America.<sup>61</sup>

During the 10-year forecast, NB Power plans to work on the Mactaquac Hydro Generating Station before its end of life in 2030. Options are to replace, remove, or repower parts of the generating station. This project will cost a minimum of \$2 billion and up to \$5 billion.<sup>62</sup> NB Power is expected to announce its recommendations to the government in 2016. However, Millbank and Ste. Rose Generating

<sup>56</sup> Jeannot Volpe and William M. Thompson "New Brunswick Energy Commission 2010-2011" (2010) at 7 (Volpe).

<sup>57</sup> Martillac *supra* note 1.

<sup>58</sup> *Coleson Cole is an oil-fired plant used only during winter peak periods.*

<sup>59</sup> NB Power, "NB Power's 10-Year Plan". *Energie NB Power Report* (2014), at 3.

<sup>60</sup> *Ibid* at 6.

<sup>61</sup> *Ibid* at 5.

<sup>62</sup> *Ibid* at 19.

Stations also require integrated plans before their retirement in 2031.

### *Electricity Rates*

NB Power categorizes small business owners (except industrial) as general service customers. Per billing period, taking into account NB Power's most recent 1.6 percent increase for rate categories, small businesses are expected to pay a demand charge of \$10.20 per KW (after the use of 20KW), and an energy charge of 12.76 cents per kWh (for the first 5000 kWh used), on top of a \$22.15 service charge.<sup>63</sup> On average, a small business owner pays about \$267.55 a month for the use of 2000 kWh in NB, whereas a residential customer would only pay about \$221.08.<sup>64</sup>

### *Challenges*

NB Power's 10-year objective will add more financial burden for small businesses. Many businesses already struggle to pay their electricity bills and the compounded increases of 2 per cent per year rate increase will worsen their situations. Over the last three years, 75 per cent of NB businesses saw decreased profits due to previous increases in their business energy costs.<sup>65</sup> However, NB Power overlooks that small businesses presently subsidize the energy use of other ratepayers by paying as much as 20 per cent more than their actual cost of service.<sup>66</sup> Simply put, businesses cannot handle any more cost pressures from NB Power.

### *Energy Efficiency*

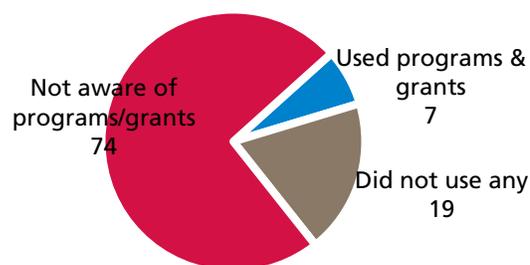
Prior to 2015, Efficiency NB invested in research and development of energy options, education and awareness, to help ratepayers use less energy and save money.<sup>67</sup> Cash-in rebates were available on select energy-saving appliances; owners could receive energy assessments on their buildings, and could also

attend workshops on how to save on lighting costs and improve a building's efficiency.<sup>68</sup> However, in 2015, Efficiency NB was absorbed by NB Power.<sup>69</sup>

Currently, NB Power offers a program that provides an audit incentive for the evaluation of the efficiency of the owners' buildings.<sup>70</sup> In the fall of 2015, the utility also launched a ductless mini-split heat pump program, that will see homeowners (and not businesses) who purchase a qualifying product through participating contractors receive a \$500 rebate. Overall, the low number of programs offered to help customers reduce their electricity consumption might explain why 74 per cent of NB businesses are unaware of any energy efficient programs or grants offered by the energy distributors, the provincial government or the federal government (see Figure 17). NB Power needs to diversify its efficiency programming to help reduce energy costs and better market the availability of its efficiency offerings to SMEs. If not, planned rate increases will undermine the sustainability of small businesses in the province.

Figure 17

### **Business Use of Programs or Grants to Implement Energy Efficiency Measures (% response)**



Source: CFIB, *Energy Uses and Energy Efficiency Survey*, February – March 2015, NB, n=188.

<sup>63</sup> NB Power, "Business Rates", General Service 1 (2015).

<sup>64</sup> Hydro *supra note 13*, p.33 and p.39.

<sup>65</sup> CFIB, *Energy Uses and Energy Efficiency Survey*, February – March 2015, NB Responses=188.

<sup>66</sup> New Brunswick Energy and Utilities Board, *Appendix 2 – Study on cost allocation by category 2015-2016*, October 2014. Internet. Accessed 2 June 2015.

<sup>67</sup> Volpe *supra note 56*, at 9.

<sup>68</sup> Efficiency NB, *Efficiency NB in the news*. May 2014. Internet. Accessed 3 July 2015.

<sup>69</sup> CBC News, *Efficiency NB folded into NB Power*. Dec. 2014. Internet. Accessed 3 July 2015.

<sup>70</sup> Energy Smart Commercial Building Retrofit Program.

*I can't imagine having an opportunity to lower energy costs without having to spend thousands on upgrading.*

NB Member, pharmacy

### Case Study: "This has been a total fiasco!"

Jeannot Leclair owns a small grocery store in northern New Brunswick. J. A. Epicerie 2000 Inc. is a 3400 sq ft building located in Eel River Crossing. Unsatisfied with his total monthly electrical costs, Leclair decided to install a Smart Grid, a tool that enables customers to manage their energy use. That's when he noticed high peaks in his reports that did not match the amount of energy consumed by his small business.

In 2007, Leclair sought to lower his energy costs. He was recommended by Efficiency NB to speak with a consultant firm about how he could make his building more energy efficient. "The consultant told me that I could save 37% of the energy costs on my electrical bill," says Leclair. The business owner made more than \$80,000 in required changes to his building. "There is nothing else I can do to save energy. To name a few, I installed 1 entrance of 600 amp panels, reduced the number of compression motors, and installed 2 new hot water tanks."

The consultant told Leclair that his electrical bill would change from \$5000 to \$3000 a month. However, Leclair's bill remained the same. He reached out to his power utility, but was told that NB Power runs a margin of error between 25- 30%. Over the last 8 years, Leclair has been extremely frustrated that his concerns are not taken seriously. "In January and February 2015, my bill was \$6000. (...) NB Power makes it hard to make a living!"

## Recommendations

Based on NB members' feedback on electricity use, impact of rate increases on small firms, and the willingness and interest of small firms for becoming more energy efficient, CFIB is recommending the following:

### *Improving Oversight*

**Recommendation #1: The Government of New Brunswick needs to appoint a small business advocate to represent general service customers at energy rate hearings.**

For the energy sector in NB, there is a Public Intervener whose role is to ensure that the public's interest is represented justly in all energy regulatory matters. But, the interests of each rate class (residential, general service) are not considered in isolation. NB needs someone to represent the interests of small businesses, as their concerns differ from the other rate classes. NB should emulate the NS model. For example, the NS Small Business Advocate has been successful at minimizing the cross-subsidization gap, by speaking at energy hearings.

### *Reducing Cross-subsidization*

**Recommendation #2: Over the next 5 to 10 years, New Brunswick Power needs to address and fix the issue of cross-subsidization of rate classes, by ensuring that the revenue-to-cost ratio remains between 0.95 to 1.05, so that small businesses are not funding the energy use of larger industrial companies or residential customers.**

Currently, NB Power's revenue- to- cost ratio for general service customers is high. Small businesses are paying \$1.19, residential customers are paying 0.94 cents, and large industrial are paying 0.98 cents for each dollar that is spent on electricity. NB Power recognizes the issue of cross- subsidization, and states it would take about 10 years to fix. However, this problem has persisted for over 20 years. CFIB believes NB Power should address it now.

### *Limit Rate Increases*

**Recommendation #3: The New Brunswick Energy and Utilities Board (EUB) should consider that small businesses are already paying more than their actual cost of service for electricity before agreeing to NB Power's 10-year objective.**

NB Power has a 10-year objective to increase rates by 2 per cent each year for 10 years. These rate increases are to cover the costs of repairing infrastructure, and to reduce corporate debt. This targets unfairly small businesses which already subsidize the costs of electricity for other rate classes. Small business concerns need to be prioritized at energy hearings.

### *Improving Demand Side Management*

**Recommendation #4: In the next year, New Brunswick Power needs to develop a concrete program that would help small businesses improve the energy efficiency of their operations.**

In April 2015, Efficiency NB was absorbed by NB Power. Since then, there have been no energy efficiency programs, except an audit incentive, available for small businesses. New Brunswick small businesses lack incentives to use less energy, save money, or become more environmentally friendly. This is especially concerning since planned rate increases will also undermine the sustainability of small businesses in the province. NB Power should focus more energy on creating a solid plan to support small and medium-sized businesses in their efforts to reduce electricity consumption. This can be done through education and financial incentives.

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## **Conclusion**

The cost of energy is a major constraint for small businesses in Atlantic Canada. Small businesses have noticed a trend in their electricity bills: energy costs are rising, even if consumption is not. During the past three years, the majority of members in the Atlantic saw a large or moderate increase in energy

costs. About 60 per cent of SMEs already spend over five per cent of their total business costs on energy alone. While the impacts of energy costs increases are numerous, the majority of the businesses have seen a loss of profits.

The source of energy most used by small businesses is electricity. Over 60 per cent of business owners feel that their electricity bills are too high. Being more energy efficient is one way of reducing or controlling costs. On that front all the provincial governments could and should step up to the task of helping small business owners learn and implement energy efficiency strategy.

In addition, the issue of cross-subsidization persists in NL, PEI, and NB. Small businesses have been subsidizing the costs of electricity for large industrial customers and residential customers for decades now. Energy boards have recognized that this practice should change. Yet, their recommendations are largely ignored by the power utilities. It is high time for the provincial governments to intervene and change this situation.

Small businesses deserve a voice at energy hearings dedicated to protecting their specific interests. SMEs should also enjoy a wealth of well-suited energy efficiency programs that ultimately would allow them to bring better and more products to markets, and strengthen their position as job creator, innovator, and wealth creator for communities, cities and regions alike.

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## References

- Allen, Tracey. *PEI Energy Commission Presentation*. February 2012. Internet. Accessed 7 July 2015. <http://www.slideshare.net/traceyallenpei/pei-energy-commission-presentation>
- CBC NEWS. *Ontario eyeing Lower Churchill hydroelectric power from Labrador*. 2015. Internet. Accessed 22 July 2015: <http://www.cbc.ca/news/canada/newfoundland-labrador/ontario-eyeing-lower-churchill-hydroelectric-power-from-labrador-1.3159796>
- CBC News. *Efficiency NB folded into NB Power*. December 2014. Internet. Accessed 3 July 2015. <http://www.cbc.ca/news/canada/new-brunswick/efficiency-new-brunswick-folded-into-nb-power-1.2871099>
- CBC News. *Quebec's NB Power deal cut to \$3.2 billion*. January 2010. Internet. Accessed 1 July 2015. <http://www.cbc.ca/news/canada/new-brunswick/quebec-s-nb-power-deal-cut-to-3-2b-1.918991>
- CBC News. *Maritime Electric, province argues over new generator ownership*. 2015. Internet. Accessed 8 July 2015. <http://www.cbc.ca/news/canada/prince-edward-island/maritime-electric-province-argue-over-new-generator-ownership-1.3127833>
- CBC News. *Muskrat Falls costs rise to almost \$7 billion*. 2014. Internet. Accessed 7 July 2015. <http://www.cbc.ca/news/canada/newfoundland-labrador/muskrat-falls-costs-rise-to-almost-7b-1.2688582>
- CBC News. *PEI to assume Maritime Electric debt*. 2010. Internet. Accessed 9 July 2015. <http://www.cbc.ca/news/canada/prince-edward-island/p-e-i-to-assume-maritime-electric-debt-1.961299>
- CFIB. *Electricity Rates and Energy Efficiency Survey*. July 2015, n=246.
- CFIB. *Energy Uses and Energy Efficiency Survey*. February – March 2015, n=482.
- Chen, Zhijun, & Patrick Rey. "Competitive Cross-Subsidization". *Working Papers* (2013) 1-44. [http://idei.fr/doc/wp/2013/wp\\_idei\\_808.pdf](http://idei.fr/doc/wp/2013/wp_idei_808.pdf)
- Comeau, Louis R. *Privatization of NS Power*. 2012. Internet. Accessed 21 July 2015. <http://thechronicleherald.ca/opinion/99171-privatization-of-nova-scotia-power>
- Department of Natural Resources. "Upper Churchill: Can we wait until 2041?" *Power in Our Hands* (2012): 1 – 20. <http://www.powerinourhands.ca/pdf/UpperChurchill.pdf>
- Ecology Action Center. *Solving Nova Scotia's Electricity Pricing Problem: Energy Affordability VS. Rising Electricity Prices*. (2013) Internet. Accessed 22 July 2015. [https://www.ecologyaction.ca/files/images-documents/file/Energy/SolvingNSElectricityPricingProblem\\_LoRes.pdf](https://www.ecologyaction.ca/files/images-documents/file/Energy/SolvingNSElectricityPricingProblem_LoRes.pdf)
- Efficiency NB. *Efficiency NB in the news*. May 2014. Internet. Accessed 3 July 2015. <http://www.energycynb.ca/home/efficiency-nb-in-the-news.html>
- Efficiency NS. *2014 in Review*. 2014. Internet. Accessed 7 July 2014. <http://efficiencyns.ca/2014annualreport/2014-in-review/>
- Emera. "2006 - 2014 Annual Reports and Progress Reports." *Investors* (2015). <http://investors.emera.com/GenPage.aspx?IID=4072693&GKP=205804>
- Emera. "2014 Annual Report." *Investors* (2014): 1 – 170. <http://www.snl.com/Cache/1001197233.PDF?Y=&O=PDF&D=&fid=1001197233&T=&iid=4072693>
- Emera. *Information & News*. 2015. Internet. Accessed 22 July 2015. <http://www.emeranl.com/en/home/newsinformation/faq.aspx>

Emera. "The Maritime Link Project." *Emera NL* (2014): 1- 7.

[http://www.emeranl.com/site/media/emeranl/Documents/Emera\\_Maritime\\_Link\\_Project.pdf](http://www.emeranl.com/site/media/emeranl/Documents/Emera_Maritime_Link_Project.pdf)

Executive Council Natural Resources. NL. *MHI Analysis and DG3 Cost Estimates Support Development of Muskrat Falls*. 2012. Internet. Accessed. 17 July 2015.

<http://www.releases.gov.nl.ca/releases/2012/exec/1030n01.htm>

Fortis Inc. "2014 Annual Report." *Financial and Regulatory Report* (2014): 1- 144.

<https://www.fortisinc.com/Investor-Centre/Financial-and-Regulatory-Reports/Documents/ftsanrep-3-6-228pm.pdf>

Fortis Inc. "2013 Annual Report." *Financial and Regulatory Report* (2013): 1- 144.

<https://www.fortisinc.com/Investor-Centre/Financial-and-Regulatory-Reports/Documents/ftsanrep.pdf>

Global News. *Power rates in NB not equally distributed*. Oct.2014. Internet. Accessed 2 July 2015.

<http://globalnews.ca/news/1624689/power-rates-in-new-brunswick-not-equally-distributed-report/>

Grassroots Marketing Alliance. *What is Energy?* Internet. Accessed 17 June 2015.

[http://solarschools.net/resources/stuff/what\\_is\\_energy.aspx](http://solarschools.net/resources/stuff/what_is_energy.aspx)

Herald Business. *NS Power wants another rate hike*. 2011. Internet. Accessed 22 July 2015.

<http://thechronicleherald.ca/business/31850-nova-scotia-power-wants-another-rate-hike>

Hydro Québec. "Comparison of Electricity Prices in North American Cities". *ISSUU* (2014): 1 – 82.

<http://www.hydroquebec.com/publications/en/corporate-documents/comparaison-electricity-prices.html>

IRAC. "Maritime Electric Company Limited DSM Filing." *Notice of Application* (2015).

<http://www.irc.pe.ca/document.aspx?file=infocentre/documents/utilities-mecl-ue21406-notice-20150603.asp>

IRAC. "Section 48(12) - Schedule 3, Rate Base." *Electric Power Act* (2014).

<http://www.irc.pe.ca/infocentre/documents/MECL-AuditedRateBaseandReturnonRateBaseCalculations-2014.pdf>

Martillac Limited and Thompson & Associates. "Atlantic Energy Gateway Report on Regional Electricity System Operations". *Atlantic Energy Gateway* (2012): 1- 66.

[http://energy.novascotia.ca/sites/default/files/aeg\\_regional\\_electricity\\_system\\_operations.pdf](http://energy.novascotia.ca/sites/default/files/aeg_regional_electricity_system_operations.pdf)

Maritime Electric. *Our Island Electricity*. 2015. Internet. Accessed 6 July 2015.

[http://www.maritimeelectric.com/about\\_us/ab\\_our\\_island\\_electricity.aspx](http://www.maritimeelectric.com/about_us/ab_our_island_electricity.aspx)

Metro News. *Power on in NL after 80,000 outages*. 2014. Internet. Accessed 7 July 2015.

<http://metronews.ca/news/canada/1303040/power-on-in-newfoundland-after-80000-outages/>

Nalcor. "Annual Financial Reports," (2007 – 2015). <http://www.nalcorenergy.com/publications.asp>

Nalcor. "2013 Business and Financial Report." (2013): 1- 110.

[http://www.nalcorenergy.com/uploads/file/Nalcor%202013%20Annual%20Report\(1\).pdf](http://www.nalcorenergy.com/uploads/file/Nalcor%202013%20Annual%20Report(1).pdf)

NALCOR ENERGY. *Nalcor Energy provides update on the Muskrat Falls project, 2015*, consulté le 29 septembre 2015. [http://muskratfalls.nalcorenergy.com/wp-content/uploads/2013/03/News-Release\\_Muskrat-Falls-Project-Update\\_26Jun2014.pdf](http://muskratfalls.nalcorenergy.com/wp-content/uploads/2013/03/News-Release_Muskrat-Falls-Project-Update_26Jun2014.pdf)

NB Energy and Utilities Board. *2015/2016 Class Cost Allocation Study*. Appendix 2. October 2014.

Internet. Accessed 2 June 2015. <http://www.nbeub.ca/opt/M/browserecord.php?-action=browse&recid=456>

NB Power. "NB Power Annually and Quarterly Reports", (2008- 2014).

<https://www.nbpower.com/en/about-us/accountability-reports/annual-and-quarterly-reports/>

- NB Power. "NB Power's 10-Year Plan". *Energie NB Power Report* (2014): 1- 22. <http://www.nbpower.com/media/1599/d-html-en-about-publications-nb-power-10-year-plan-2014.pdf>
- NB Power. "NB Strategic Plan 2011-2040." *Energie NB Power Report* (2010): 1- 24. <http://www.nbpower.com/media/1598/d-html-en-about-publications-2011-2040-strategic-plan-en.pdf>
- NB Power Charts. *Business and Residential Comparisons*. October 2014. Internet. Accessed 2 June 2015. <http://www.nbpower.com/html/en/business/rates/comparisons.html>
- NB Power Rates. *Business Rates (Effective October 1, 2015)*. Internet. Accessed 6 November 2015. <http://www.nbpower.com/en/products-services/business/rates>
- Newfoundland and Labrador . "Focusing our Energy." *Newfoundland and Labrador Energy Plan* (2014): 1 - 102. <http://www.nr.gov.nl.ca/energyplan/EnergyReport.pdf>
- Newfoundland Government. "Focusing Our Energy." *Energy Plan Progress Report* (2015): 1- 62. [http://www.nr.gov.nl.ca/nr/pdf/energy\\_plan.pdf](http://www.nr.gov.nl.ca/nr/pdf/energy_plan.pdf)
- Newfoundland and Labrador Hydro. "The Hydro Rate Manual." *Schedule of Rates, Rules, and Regulations* (2014): 1- 75. <http://www.nlhydro.com/wp-content/uploads/2014/04/Complete-Set-of-Rates-effective-Dec-1-14.pdf>
- Newfoundland and Labrador Hydro. *NL Hydro*. 2015. Internet. Accessed 14 July 2015. <https://www.nlhydro.com/>
- Newfoundland Power. "First Quarter 2015," *Financial Reports* (2015): 1- 11. <http://www.newfoundlandpower.com/PublicContent/8204/First%20Quarter%202015.pdf>
- Newfoundland Power. "2013-2014 General Rate Review." *Public Utilities Board of Newfoundland* (2014). <http://www.pub.nf.ca/applications/NP2013GRA/index.htm>
- Newfoundland Power. *NL Power*. 2015. Internet. Accessed 14 July 2015. <https://secure.newfoundlandpower.com/default.aspx>
- Newfoundland Power. "Schedule of Rates, Rules and Regulation." *Schedule* (2015): 1- 30. <http://www.newfoundlandpower.com/AboutUs/pdf/ratebook.pdf#page=25>
- Nova Scotia Power. *What Percentage of Nova Scotia's Profits Leave Our Province?* 2012. Internet. Accessed 21 July 2015. <http://tomorrowpower.ca/answer/145/>
- NS Department of Environment. "An Approach to Regulating Electricity Sector Greenhouse Gas and Air Pollutant Emissions in Nova Scotia: A Discussion Paper." *NS Environment* (2009): 1- 13. <http://www.novascotia.ca/nse/dept/docs/Discussion.Paper.Environment.GreenhouseGas.pdf>
- Nova Scotia. "Electricity Review Report." *Draft* (2015): 1- 50. [http://energy.novascotia.ca/sites/default/files/Electricity%20System%20Review\\_Report.pdf](http://energy.novascotia.ca/sites/default/files/Electricity%20System%20Review_Report.pdf)
- NS Power. "Tariffs." *Rate Code 10* (2015): 1- 79. [http://www.nspower.ca/site/media/Parent/Tariffs%20-%20January%201%202015%20-%20effective%20Feb%2017%20FAM\(1\).pdf](http://www.nspower.ca/site/media/Parent/Tariffs%20-%20January%201%202015%20-%20effective%20Feb%2017%20FAM(1).pdf)
- PEI Energy Commission. "Final Report: Charting our Electricity Future." *PEI Energy Commission* (2012): 1- 82. [www.peiec.ca](http://www.peiec.ca)
- PEI Energy Cooperation. "Securing Our Future: Energy Efficiency and Conservation." *Prince Edward Island Energy Strategy*, 1- 40. [http://www.gov.pe.ca/photos/original/env\\_snergyst.pdf](http://www.gov.pe.ca/photos/original/env_snergyst.pdf)
- South Coast Today. *600% Profit Increase for Nova Scotia Power Parent Company*. 2015. Internet. Accessed 21 July 2015. <http://www.southcoasttoday.ca/content/600-profit-increase-nova-scotia-power-parent-company>

Take Charge. *Take Charge NL*. 2014. Internet. Accessed 17 July 2015.

<http://takechargenl.ca/business/isolated-systems-business-efficiency-program-2/>

The Canadian Press. *Sale of NB Power to Hydro-Quebec*. March 2010. Internet. Accessed 1 July 2015.

<http://www.thewesternstar.com/Natural-resources/2010-03-24/article-1465328/Sale-of-NB-Power-to-HydroQuebec-dies-Quebec-and-NB-say-deal-too-risky/1>

The Guardian. *Quebec Hydro Deal, new submarine cable perfect combination*. 2015. Internet. Accessed 8 July 2015.

<http://www.theguardian.pe.ca/Opinion/Editorials/2015-01-02/article-3994277/Quebec-hydro-deal%2c-new-submarine-cable-perfect-combination/1>

The Guardian. *PEI Government buying \$50 million power generator*. 2015. Internet. Accessed 8 July 2015.

<http://www.theguardian.pe.ca/News/Local/2015-06-08/article-4173904/P.E.I.-government-buying-%2450-million-power-generator/1>

The Guardian. *PEI electricity rates to rise 2.2 percent*. 2015. Internet. Accessed 9 July 2015.

<http://www.theguardian.pe.ca/News/Local/2015-02-12/article-4040665/P.E.I.-electricity-rates-to-rise-2.2-per-cent/1>

The Journal Pioneer. *Price for PEI power cables \$50 million less than expected*. 2015. Internet. Accessed 8 July 2015.

[http://www.journalpioneer.com/News/Local/2015-06-24/article-4192663/Price-for-P.E.I.-power-cables-\\$50-million-less-than-expected/1](http://www.journalpioneer.com/News/Local/2015-06-24/article-4192663/Price-for-P.E.I.-power-cables-$50-million-less-than-expected/1)

The Liberty Consulting Group. "Prudence Review of Newfoundland and Labrador Hydro Decisions and Actions, Executive Summary," *Executive Summary* (2015): 1- 78.

<http://www.pub.nf.ca/applications/NLHGRASUPP2013/PrudenceReview/files/reports/NLH-Amended-GRA-Prudence-Review-Report.pdf>

Tidal Today. *NS develops tidal regulation*. 2015. Internet. Accessed 22 July 2015.

<http://analysis.tidaltoday.com/nova-scotia-develops-tidal-regulation-large-scale-projects-2020>

Volpe, Jeannot, & William M. Thompson. "Final Report New Brunswick Energy Commission 2010-2011." *New Brunswick Energy Commission* (2010) 1-106.

<http://www.gnb.ca/Commission/pdf/FinalReport2010-2011.pdf>