

Nova Scotia Department of Energy

Electricity System Review Survey

February 17, 2015

Final Report



Thinkwell

1.0 Background and Methodology

The Nova Scotia Department of Energy engaged us to conduct survey research with adult (18+) Nova Scotians about the current electricity system in the province and its future.

The primary objectives of the research were to:

- Evaluate the current state of electricity within the province;
- Probe opinions on potential changes to the system;
- Measure willingness to invest in renewable energy sources.

Methodology

This project probed opinions of Nova Scotians on the province's electricity system using telephone survey research. We conducted these telephone surveys with **1000** adult (18+) Nova Scotians. The interviews were conducted between November 14th and November 29th, 2014 by IMP Customer Care – Market Research Division, from their call centre facility in Windsor, Nova Scotia.

The sample was “boosted up” with cell phone numbers to ensure adequate representation of younger Nova Scotians, who are increasingly difficult to reach via landlines. The sample was provided by ASDE Survey Sampler. ASDE Survey Sampler is a privately owned Canadian company, with the ISA 9001-2008 certification.

A sample of this size yields results that are accurate within +/- 3.1 percentage points 19 times out of 20.

Sample quotas were set for the age, region, and gender of the respondent. The data was weighted by these variables to ensure that the final sample is representative of the province's population.

Questionnaire

We designed the survey in cooperation with the Department of Energy.

Additional Considerations

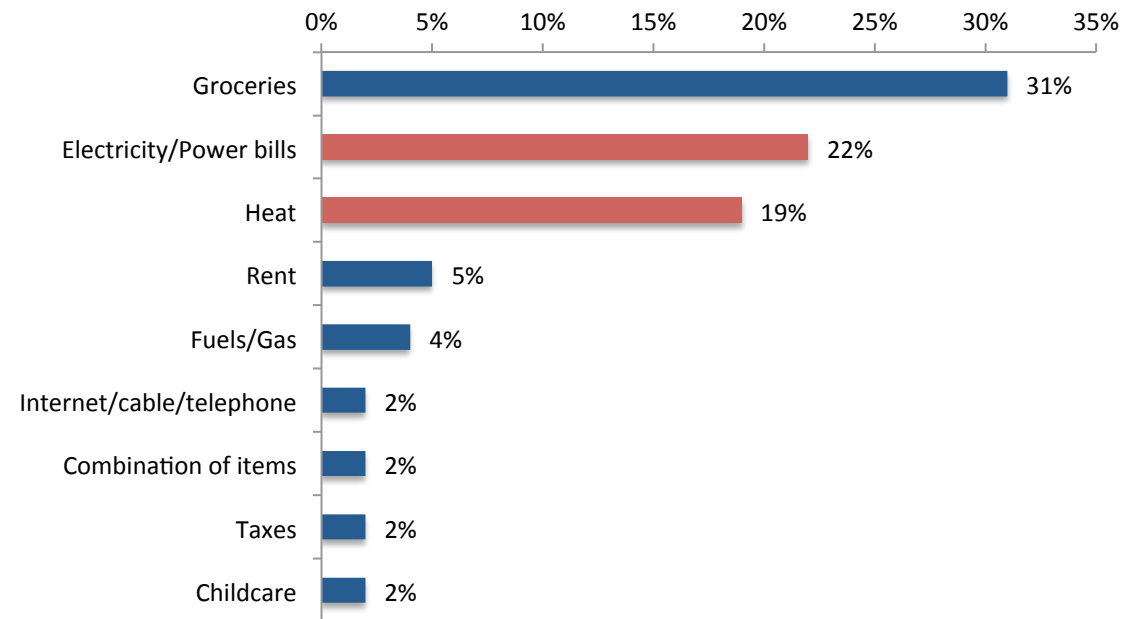
The percentage totals detailed in this report may not add up to 100, due to rounding. Also, all figures are reported in integers.

2.0 Detailed Findings

2.1 Electricity Costs

The price of electricity and power bills are a key concern among Nova Scotians, second only to grocery costs.¹ Heat (which may or may not be generated by electricity) is a close third.

Q. As the cost-of-living increases, what expense do you find to be the biggest challenge in meeting your household budget?



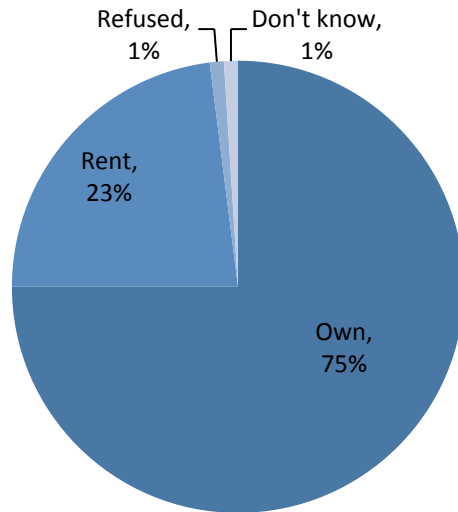
Further Analysis

Region: Residents of the Strait region are much more likely than other regions to list *electricity* or *power bills* as the biggest challenge in meeting household budgets (38%). Residents of Industrial Cape Breton, on the other hand, are slightly more likely to list *heat* as a concern (29%).

¹ Note that this question was open-ended, i.e., respondents were not provided with response categories from which to choose. Also, only responses with 2% or greater are reported. For a full list of responses, please see the tabular results.

The majority of respondents own their home. Those who rent usually do not pay for their own heat, but do pay for electricity.

Q. Do you own or rent the home you are currently living in?



Renters:

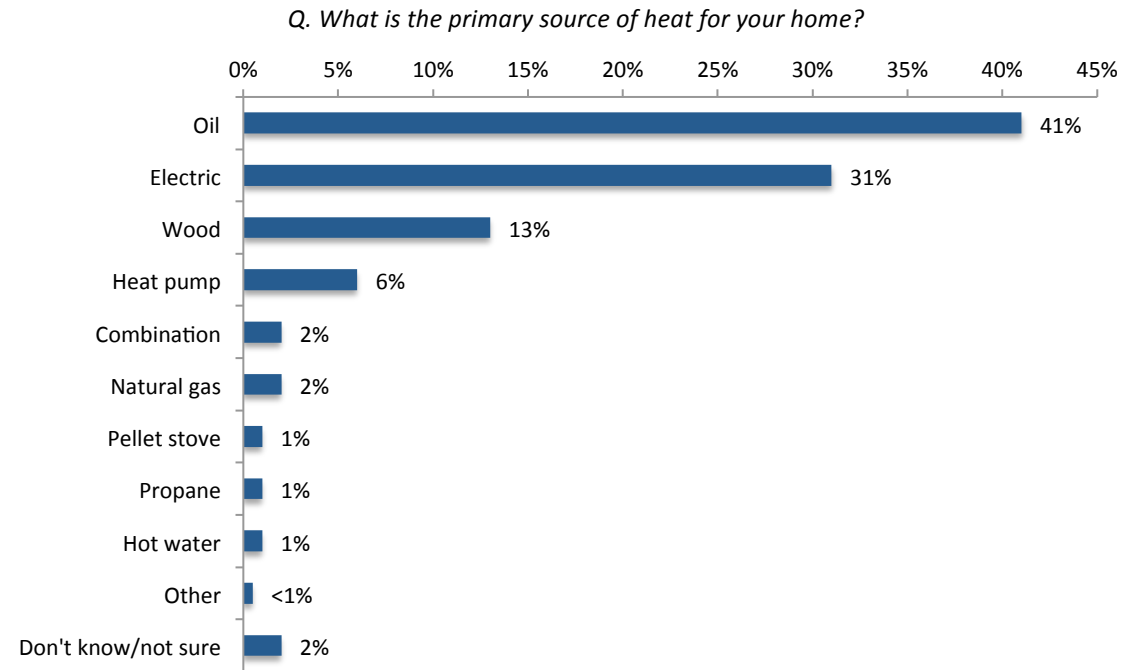
Are heating costs included in your rent? n = 231	
Yes	59%
No	38%
Don't know/not sure	3%
Are electricity costs included in your rent? n = 231	
Yes	22%
No	78%

Further Analysis

Region:

Residents of the HRM and Industrial Cape Breton regions are much more likely to rent their homes (31%) than those in other areas of the province.

Oil and electricity are the main sources of home heating. Wood and heat pumps also register, though in smaller amounts.



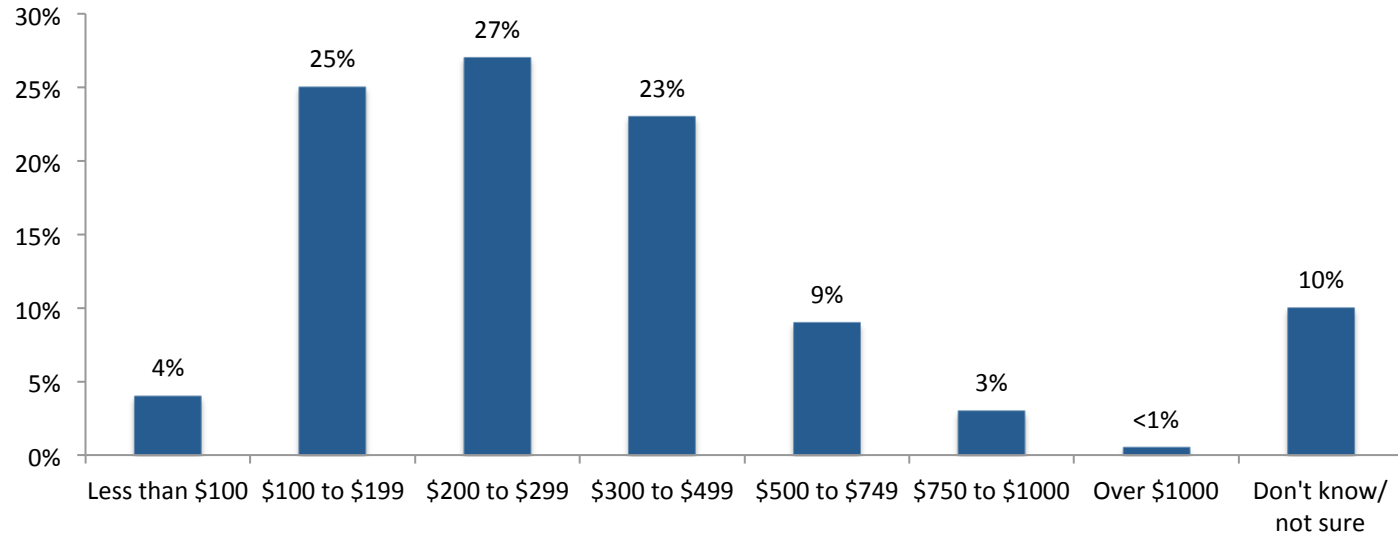
Further Analysis

Region:

Two-thirds (66%) of respondents in Industrial CB report that *oil* is the primary heat source for their home, a much higher percentage than in other regions. *Wood* is a much more common primary heat source in the South Shore (29%), Valley (28%), and Strait (25%) regions than in HRM (4%) or Industrial CB (2%).

Respondents are most likely to report paying \$200 to \$299 for their electric over the previous two months.

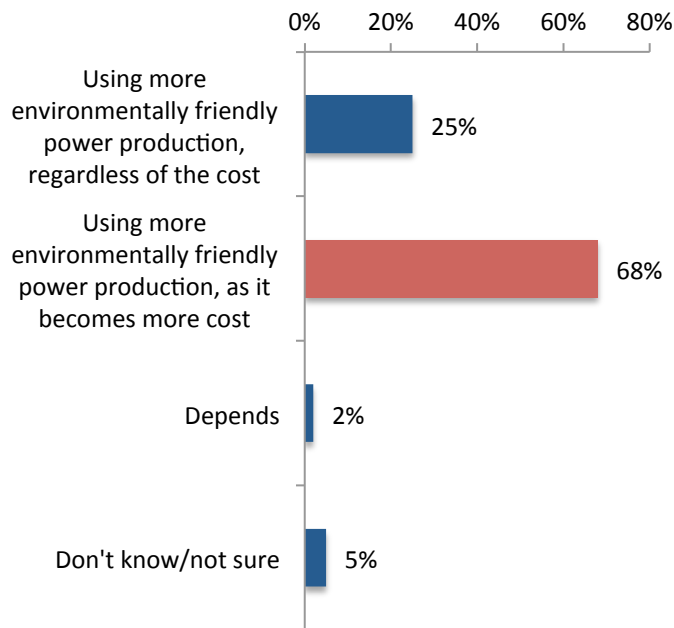
Q. In total, approximately how much was your electric bill for the last two months?



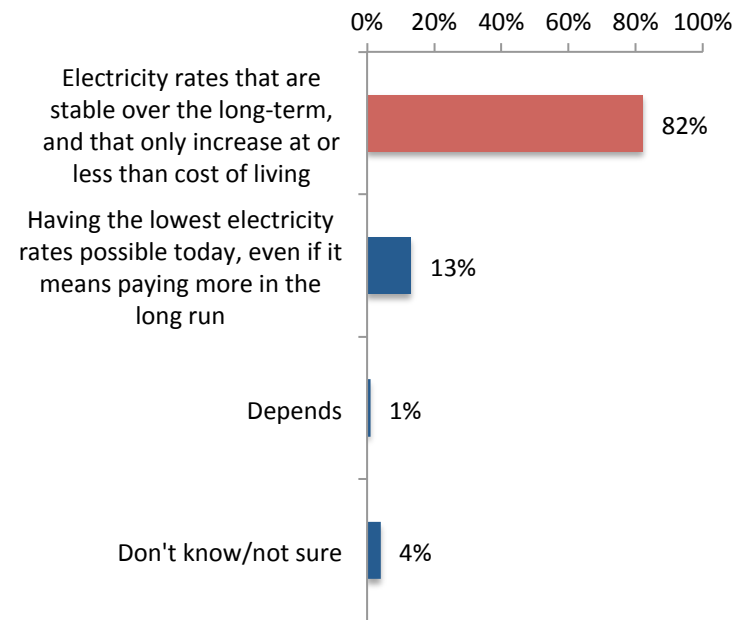
2.2 Future of Electricity in Nova Scotia

Nova Scotians are most likely to prefer options that reduce the cost of energy to them over the long-term. This means using environmentally friendly power production only as it becomes cost-effective, but also accepting slightly higher electricity rates now as long as they remain relatively stable.

Q. Looking at the future of Nova Scotia electricity – over the next 10 to 25 years – which of the following is the most important priority to you?



Q. And considering again the future of Nova Scotia electricity – over the next 10 to 25 years – which of the following is the most important priority to you?



Further Analysis

Age: Younger Nova Scotians (18-34) are the most likely to say that we should use environmentally friendly power production, *regardless of the cost* (32%).

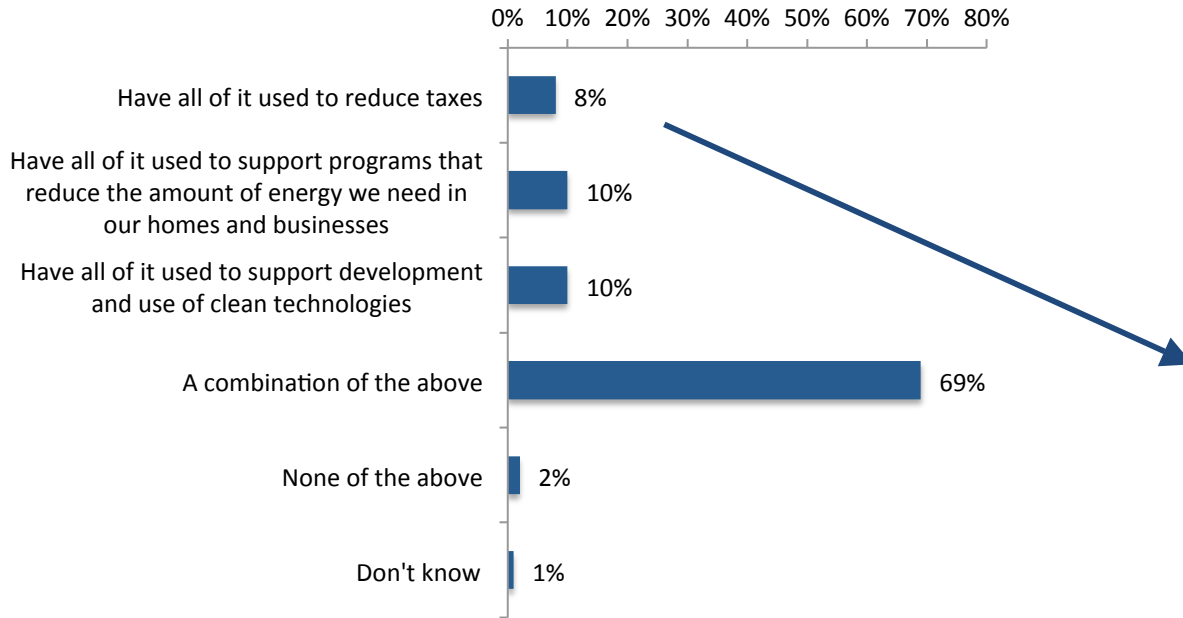
Over one third of respondents (37%) feel that wind power should be the number one priority for alternative sources of power. Solar and tidal are also popular choices.

Q. Over the long term, Federal government requirements to address climate change mean Nova Scotia will need to reduce the amount of coal and oil used to generate electricity, and will have to rely more on alternative sources of energy. Thinking about the different sources of energy that Nova Scotia could use to meet these requirements, please rank the following types in order of highest priority, 2nd highest priority, and so on.

Power Type	1 st priority	2 nd priority	3 rd priority	4 th priority	5 th priority
Wind	37%	32%	18%	6%	5%
Solar	20%	23%	25%	19%	11%
Tidal	15%	20%	23%	21%	18%
Hydro	15%	14%	18%	28%	23%
Natural gas	8%	9%	14%	24%	43%
Depends	1%	<1%	<1%	<1%	<1%
Don't know/not sure	3%	1%	2%	2%	1%

The majority of Nova Scotians think that funds raised from increased environmental costs on fossil fuels should be used in a variety of ways (lower taxes, energy conservation, and clean technology programs).

Q. Many experts believe it is important to include the environmental costs associated with fossil fuels in order to steer consumers toward energy sources that don't contribute to climate change. If those costs are to be included, please indicate what you think should be done with the funds collected:



Q. Which taxes would you prefer to have reduced? n = 83

Tax	%
Personal income taxes	39%
The HST	38%
Property taxes	21%
Business income taxes	2%
Don't know	1%

Further Analysis

Region: Residents of the Valley region are more likely to suggest using the money to *reduce the amount of energy needed in homes and businesses* (16%).

Income: Nova Scotians who make over \$100k are the most likely to say the money should be used to *reduce taxes* (14%).

Nova Scotians feel strongly about increasing the transparency and accountability of Nova Scotia Power as well as providing options for other power suppliers. They also express strong support for investing in innovative energy technologies.

Q. For each of the following statements, please indicate whether you agree or disagree using a scale from 1 to 5, where 1 means you do not agree at all, and 5 means you agree completely.

	Avg. rating
It is important to increase transparency, accountability and benefits to rate payers	4.5
I think the government should make investments in innovative energy technology if they benefit Nova Scotians	4.4
Even if competitors to Nova Scotia Power may be more expensive, I want to have a choice on who provides me with electricity	4.1
Developing and keeping to a multi-year plan for electricity rates should be given a great deal of consideration	4.1
I would like more control over how I manage electricity in my home	3.9
We should focus on using less electricity instead of new sources of production	3.2
Overall I am satisfied with the service I receive from Nova Scotia Power	3.1
I generally understand how electricity rates are set in the Province	2.6
I think the regulation of electricity rates by the Utility and Review board results in a fair and balanced price for electricity	2.5

Further Analysis

Region:

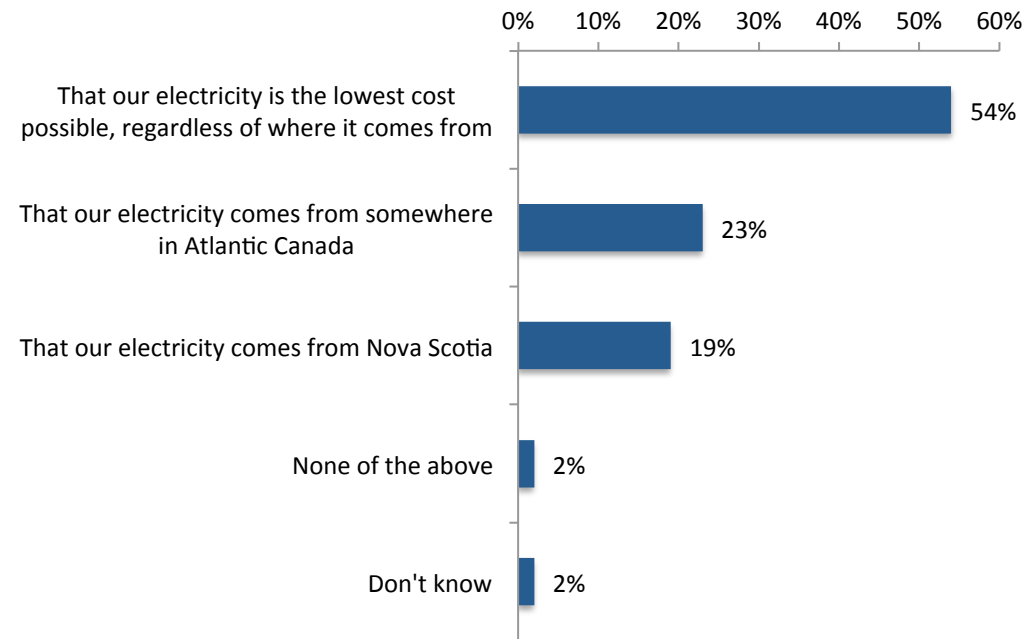
Residents of the Strait are more likely to support having a choice of electricity providers (4.5).

Age:

Younger respondents are more likely to want control over how they manage electricity in their home; this statement receives an agreement rating of 4.1 from those ages 18-34, a 4.0 for those 35-54, and 3.7 for respondents 55 and older.

A majority of Nova Scotians prefer that the cost of electricity be as low as possible, regardless of where it is generated.

Q. In your opinion, which of the following is most important?



Further Analysis

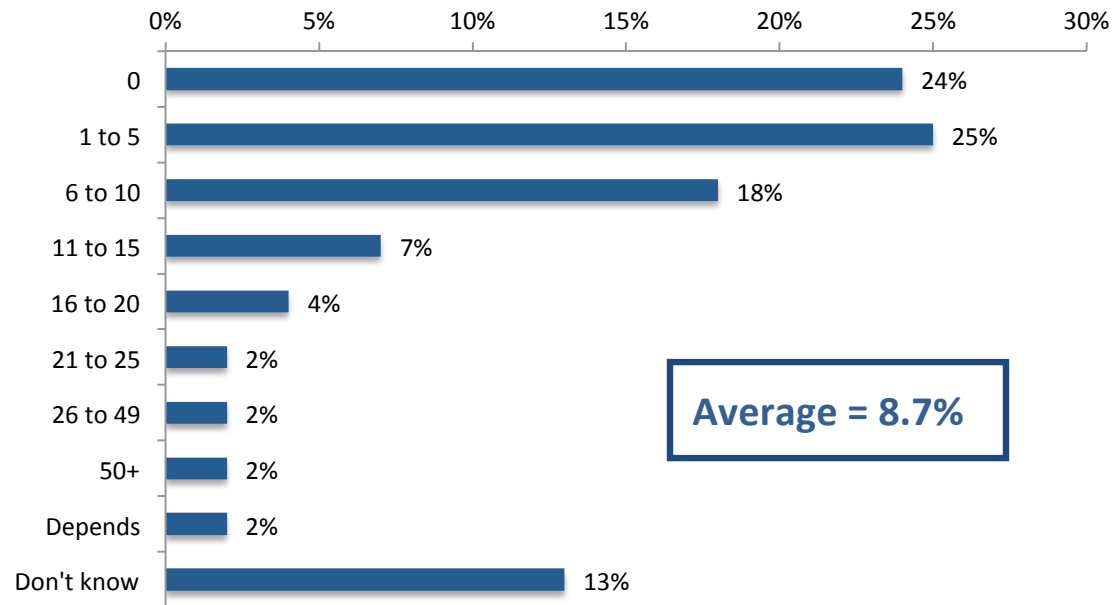
Region:

Residents of the Valley are most likely to say that getting our electricity from *Nova Scotia* (25%) is most important. Residents of the Strait (64%) and Northeastern (65%) regions place the most importance on getting the *lowest cost electricity*.

On average, Nova Scotians say they are willing to pay 8.7% more now for renewable electricity, in the interest of keeping rates more stable over time.

Q. Currently, renewable electricity is somewhat more costly than fossil fuels, such as coal, but over the long run rates are relatively more stable because there is no added fuel cost. We would like to gauge your willingness to pay more for renewable electricity now, knowing it will help keep rates more stable into the future.

How much more, in percentage terms, would you be willing to pay for renewable electricity now, above the normal rate of inflation?



Further Analysis

Education:

Respondents with a university education are willing to pay, on average, 9.8% more for renewable energy.

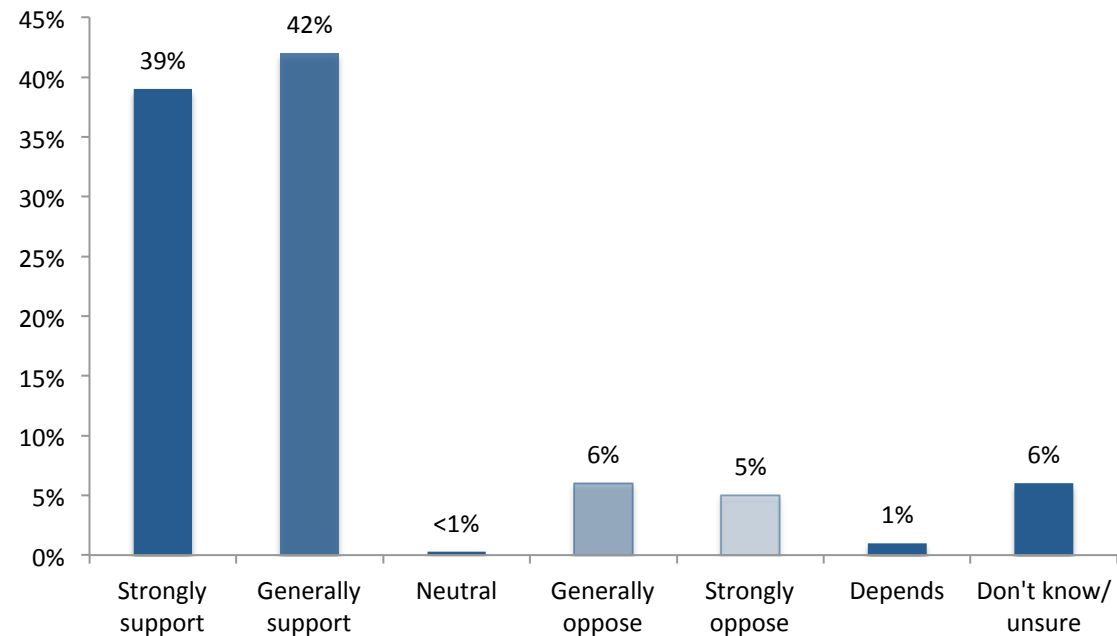
Age:

Younger Nova Scotians are the most willing to pay more for renewable energy; those ages 18-34 are willing to pay, on average, 13% more (compared to those 55 and older who are willing to pay 6.8% more).

2.3 Nova Scotia Power

A strong majority of Nova Scotians support introducing a report card of performance standards for Nova Scotia Power.

Q. The provincial government is looking at changing the way Nova Scotia Power earns its profit. The government is looking at using a report card of performance standards to increase accountability when the electricity regulator determines how much money they should make on their investment. Do you strongly support, somewhat support, somewhat oppose, or strongly oppose this type of report card system?



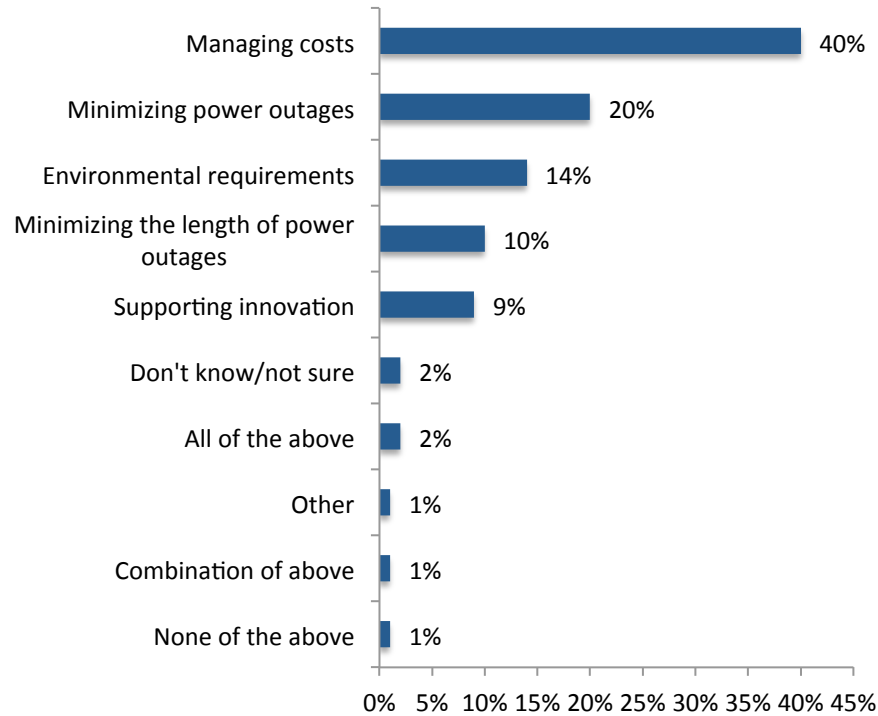
Further Analysis

Region:

Residents of Industrial CB are most likely to *strongly support* the report card system (53%), but at the same time, total opposition to the report card is higher in this region (26%) than in any other part of the province.

When it comes to rating Nova Scotia Power’s performance, respondents want to see *managing costs* as a top factor. Other important factors include *minimizing power outages* and *environmental requirements*. However, respondents are split on whether Nova Scotia Power should be able to keep a portion of the savings as an incentive to reduce costs.

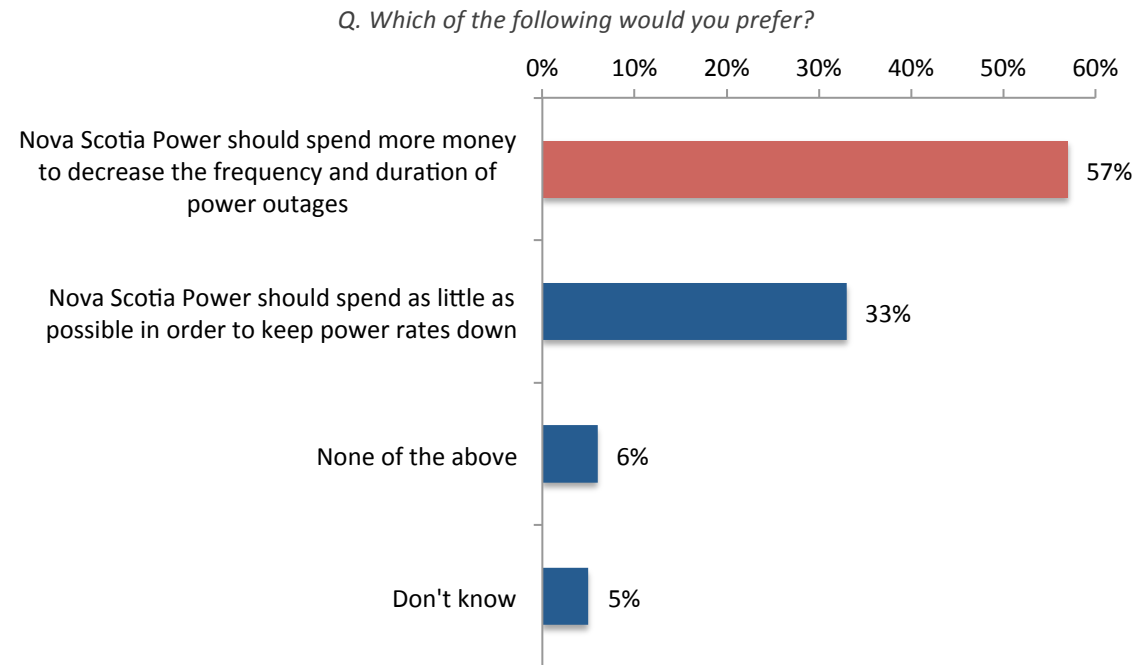
Q. If such a report card were to be introduced, which of the following factors should be given top priority in rating Nova Scotia Power’s performance?



Q. If such a report card were to be introduced, and Nova Scotia Power changed the way it did business to reduce costs, do you believe they should be able to keep a portion of those savings as an incentive?

Yes	46%
No	49%
Don't know	5%

The majority (57%) of Nova Scotians feel that Nova Scotia Power should invest in minimizing the frequency and duration of power outages; however, one third (33%) say that they should instead spend as little as possible to keep rates down.



Further Analysis

Region:

Residents of Industrial CB (65%) and the Valley (65%) are the most likely to say that Nova Scotia Power should focus on reducing power outages. Conversely, people who live in the Strait (42%) are most likely to say that Nova Scotia Power should focus on reducing costs.

Education:

Respondents who have less than a high school education are the most likely to say that Nova Scotia Power should focus on reducing costs (46%), while those with a university education are most likely to say that Nova Scotia power should focus on reducing outages (60%). It is worth noting that there is no relationship between income and these viewpoints.

3.0 Demographic Profile

This table below outlines the demographic profile of our survey respondents.

Demographic Characteristic	
Gender	
Male	48%
Female	52%
Home	
Own	75%
Rent	23%
Refused/DNK	2%
Families	
Have children (living at home)	33%
No children	67%
Marital Status (1% refused)	
Single (never married)	16%
Married/common-law	71%
Previously married (divorced/widowed)	13%
Age	
18 to 24	11%
25 to 34	14%
35 to 44	16%
45 to 54	21%
55 to 64	19%
65 or older	20%
Income	
Under 25k	12%
25 - 49k	20%
50 – 74k	16%
75 – 100k	15%
Over 100k	20%
Prefer not to say	17%

Education (1% refused)	
Less than HS	7%
Graduated HS	15%
Some college	5%
Graduated college	24%
Some university	13%
Graduated university	36%
Employment	
Employed	59%
Retired	26%
Other (student, not employed, etc.)	15%

4.0 About Thinkwell

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