

benchmarks such as reliability, outages, and communication. NSPI's performance in keeping rates in line with or below the rate of inflation could also be considered. This would allow for flexibility to accommodate years where there are large-scale capital investments (post 2030) and years when the focus would be more on performance.

## WHAT WE HEARD FROM NOVA SCOTIANS

**Digby:** September 11

**Yarmouth:** September 12

**Mahone Bay:** September 18

**Antigonish:** September 21

**Sydney:** September 22

**Port Hawkesbury:** September 23

**Middleton:** September 27

**Amherst:** September 29

**Dartmouth:** September 30

**Truro:** October 1

**Halifax:** October 15

In September 2014, the department began a series of public consultation sessions across the province. The Minister of Energy hosted 11 sessions, with more than 300 people in attendance. Sessions began in Digby on September 10th, and concluded in Halifax on October 15th.

Attendance varied by region, with 20 to 30 participants at most sessions. The final session in Halifax had more than 70 participants. It was also webcast in both English and French, with 54 viewers in total. These webcasts are available on the Electricity System Review website.

As of January 15th, 127 people have viewed the webcast posted on the electricity review website (12 in French)

A presentation by the Minister of Energy explained some of the key concepts and findings from the consultant studies. The presentation also provided people with an opportunity to give feedback on questions relating to our electricity future. Through electronic polling, people at the sessions were asked about their thoughts on how we

should generate electricity (choosing between energy sources such as wind, tidal, and solar), and other issues relating to our electricity system.

- After the presentation, people participated in group discussions on key topics, including
- how much electricity we need (demand)
- where we should get it from in the future (supply)
- what we should plan for in the way of technology or new policy approaches (innovation)
- how we can offer more choice and improve accountability within a regulated system (governance)

The public meetings concluded with a question-and-answer session with the Minister of Energy, and an opportunity to provide any additional feedback that was not covered in the workshop itself. Feedback from the workshops was collected, and a summary was provided online.

In November, the department completed a public opinion survey (through Thinkwell Research) of 1000 Nova Scotians. The survey also asked for the views and priorities of Nova Scotians as it relates to the province's electricity system. The survey was structured to be representative, meaning that it is a statistically valid representation of what Nova Scotians think. The results of the survey are integrated into this report and available on the Electricity System Review website.

### **About Our Energy Sources**

With 2030 emerging as the next critical planning point for large-scale electricity production, it was important that the review consider where Nova Scotians feel we should be getting our electricity. This relates both to our electricity sources and whether Nova Scotians feel it is more important to secure lowest cost electricity regardless of where it comes from (local or imported).

During the public consultation sessions, a small number of session participants felt that we should be focusing on local electricity production (within Nova Scotia), while a small proportion indicated that it doesn't matter where our electricity comes from as long as it is the lowest cost source. Most session participants felt that (where possible) we should use Nova Scotia energy sources first, but that Atlantic Canadian approaches should also be considered where it makes more sense in terms of cost. In general, there was support for increasing our connection and ties with other Atlantic Canadian provinces for sourcing electricity.

Moreover, Nova Scotians highly value the environment and want to ensure that environmental considerations are a key part of our electricity planning.

Through the public opinion survey, Nova Scotians were asked to identify which option was most important: electricity coming from Nova Scotia, from Atlantic Canada, or from wherever offers the lowest cost. Fifty-four per cent of respondents were not concerned with where their electricity came from as long as it was the lowest cost possible. Twenty-three per cent want their electricity to be sourced from somewhere in our region. Nineteen per cent of respondents felt it was most important to have Nova Scotia-sourced electricity.

The majority of public session participants felt that if we are going to pay more for electricity, it should come from within the province, and support local jobs and economies. They suggested that we should only be sourcing our electricity from outside the province if it can be acquired at a lower cost than locally produced sources. Many participants stated that tidal energy development in the province is a good example of how electricity sources can be more expensive, but still be supported for their economic development potential.

There was also widespread support by session participants for diversification of electricity sources. Most participants indicated that we should be getting our electricity from a variety of energy sources. A number of session participants specifically commented that we “shouldn’t put all of our eggs in one basket” so that we don’t expose ourselves to significant price volatility.

The public opinion survey asked respondents to rank on a scale of one to five how important they considered various sources of electricity production. The majority of respondents felt that wind was the most important source of electricity, followed by solar and natural gas.

In some sessions, participants suggested that individuals should be encouraged and supported to produce their own electricity, with a need to focus on small-scale, individual energy production versus larger-scale commercial projects for the transmission system.

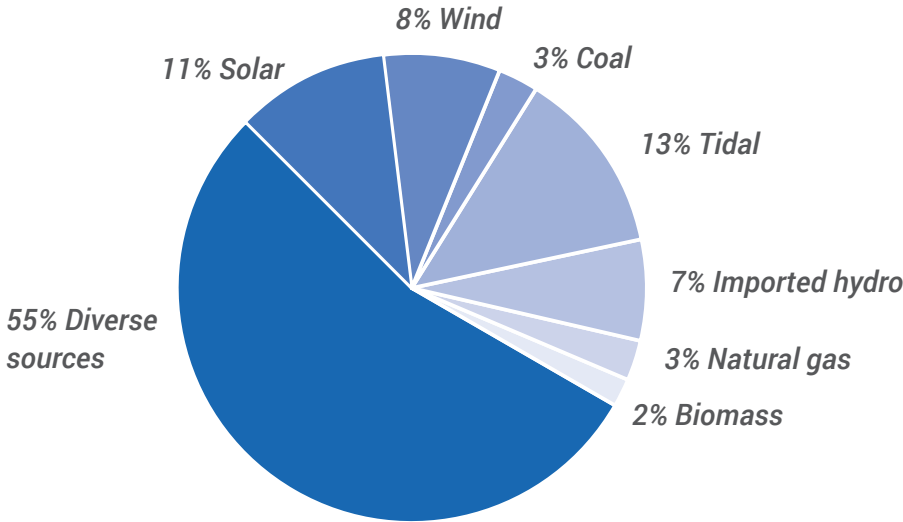
### **About Investing in Renewables**

One of the key considerations of the electricity review has been our electricity mix, including how we should source our electricity. Fundamental to this is how aggressive we should be in adding new sources of renewable electricity. During the public consultation sessions, opinions varied on whether we should continue to add renewables to our electricity mix beyond our legislated requirement.

On one end of the spectrum, a small number of session attendees wanted to reverse the legislated requirements for renewables. They stated that they believe investment in renewables is responsible for the rising cost of electricity, making the province less competitive, and causing us to lose business to other markets. Some also indicated that industrial customers should have lower rates.

On the other end of the spectrum, an equal portion of participants indicated that we should be pursuing 100 per cent renewables, or as much as we can possibly acquire. It was stated that the increased cost was not as important as environmental impacts, and that higher costs today would pay off because fossil fuel prices will continue to rise. It was also felt that higher prices in the short-run would create an incentive for efficiency and innovation.

**Fig.2 Session Participants**  
**Q. Where do you think most of our electricity should come from?**



Neither of these positions represented the majority.

The majority of session participants said that the province should be focused on positive environmental outcomes, and that increasing renewables was a good thing. However, given that we are on track to meet our renewable energy targets, it was felt that any significant increase in renewable electricity sources should only come if they are cost effective and do not negatively impact rates.

This view was also reflected in the public opinion survey results. Respondents were asked whether they felt that we should obtain more environmentally friendly power production regardless of cost, or if renewables should be added as they become

more cost effective. Sixty-eight per cent of respondents felt that we should wait for renewables to become cost effective before we add them to our electricity mix.

Respondents were also asked if they would be willing to pay more (above the normal rate of inflation) for renewable energy. Fifty-eight percent indicated they would be willing to pay somewhat more (between 2 per cent and 50 per cent more), while 24 percent indicated that they would not be willing to pay anything additional for renewable electricity.

There was an additional observation by some participants that there should be a life-cycle approach to costing where not just capital costs, but also fuel, environmental, and healthcare costs are considered when selecting our electricity sources. Others felt that the cost of backing up renewables or hot-idling coal plants should also be included when we consider the cost-effectiveness of adding renewables.

### **About Using Less Electricity**

Many workshop participants strongly suggested that we continue a focus on energy efficiency to reduce future demand. Using less electricity rather than generating more was the preferred choice. Other related discussions focused on a need for better education on home electricity management and time-of-day rates, and a need for updated building codes and standards to help the province reduce overall electricity use.

The public opinion survey asked Nova Scotians whether they thought we should focus on using less electricity versus new sources of generation. Thirty-eight percent of Nova Scotians indicated that they somewhat or strongly agreed, with 32 percent indicating they were neutral.

### **About Investing in New Technologies**

Overall, there was support in public sessions for the province to continue research and development relating to new and emerging technologies for the electricity system. There was a general opinion, however, that investment in innovation by taxpayers or ratepayers should solve a Nova Scotia problem (such as storage). A number of session participants also supported limited research and development investments that advanced economic development by accessing global markets for the technology (for example, tidal energy).

There was much discussion by participants around who should pay for investment in new technologies, with a wide variety of opinions and no overall agreement to this issue. Some suggested options for investors included the private sector, taxpayers (government-funded), and ratepayers (through power rates). It was also suggested that a portion of rates could be earmarked for innovation.

When asked if they supported government investments in innovative technologies if they benefit Nova Scotians, almost 87 per cent of telephone survey respondents somewhat or strongly agreed.

There was also significant support by participants for tidal development. While many believed the cost would be too expensive to supply Nova Scotia in the short term, it was overwhelmingly supported as an economic development and export opportunity. It was often mentioned as an example of how we should be focusing on maximizing our own energy resources.

### **About Investing in Energy Management Technologies**

There was also a lot of support for investing in electricity storage so long as research could be applied to the Nova Scotia system. Storage was generally viewed as a tool to allow us to maximize our existing resources instead of having to focus on new generation opportunities.

Many participants supported increasing the use of technologies that would allow us to better manage our system in terms of communication. There was much discussion around the cost of these technologies, and issues such as privacy, safety, and an increase or decrease in control over our individual electricity use.

When asked if they would like more control over how electricity is managed in their home, over 65 per cent of telephone respondents strongly or somewhat agreed.

### **About Innovating and Taking Risks**

Session participants frequently expressed the view that we should manage the risks associated with new technologies by investigating best practices and considering lessons learned from mistakes and successes in other jurisdictions.

A small number of participants felt that Nova Scotia is already behind in terms of research and development and should be more aggressive in pursuing new ideas and technologies, while a similar number of participants expressed the opinion that due to our size and economic situation, we should leave the risk to others. Most workshop participants sought a balance between the two options, with support to innovate where it makes sense.

A few participants believed that there should be more investment in building relationships with academic institutions and building on our academic infrastructure, while others thought that there should be more regional co-operation in supporting and implementing technologies on a larger scale due to our small market.

## About Regulating Utilities

One of the main themes of discussion throughout the workshops was the role of the Utility and Review Board in regulating our utility. A large number of participants felt that the process is unclear and not generally understood by Nova Scotians. The lack of understanding is likely the driver for the perception that the process is not ensuring the best interest of ratepayers and is not effective enough in holding the utility accountable.

A number of participants felt that the information needed on rates and how they are set is not available. The department notes that in many cases the information is public; however, it is not easily accessible or able to be understood by those not heavily involved in the regulatory process. The lack of knowledge expressed by the workshop participants was also reflected in the public opinion survey results.

When asked if they felt that they understood how electricity rates are set in the province, only 24 per cent of public opinion survey respondents strongly or somewhat agreed. Twenty-five per cent were neutral, while 39 per cent disagreed with the statement. Overall, 64 per cent of respondents were not confident that they understood how electricity rates are set in Nova Scotia.

Furthermore, when asked if they felt the regulation of electricity rates results in a fair and balanced price for electricity, 50 per cent of respondents did not agree. An additional 24 per cent of Nova Scotians were not confident that regulation of rates results in fair electricity prices. Only 20 per cent of respondents agreed with this statement.

A few public consultation session participants suggested that the Board process has become too adversarial. It was noted that the process has become more about “beating up on Nova Scotia Power” than holding the utility accountable for spending decisions and rate increases. It was also noted by some that Nova Scotia Power gets more undue media attention than most utilities.

Other participants felt that under the current model, Nova Scotia Power is only concerned about Emera shareholders, and that the board is not providing enough oversight to protect rate payers.

In general, most participants felt that increased competition would have a positive effect on our electricity system. They stated that competition would create more incentives for efficiency and is generally seen as what keeps businesses innovative and cost effective.

At the same time, most participants were not clear on what competition would look like in our system or how specifically they would benefit. Some participants felt that

because our market is too small for real competition, we should focus on a regional solution and maximize our connections with other markets.

A few participants felt that there should be a separation of transmission and generation assets. They stated specifically that Nova Scotia Power should no longer be in the business of generating electricity, and should only provide the service to customers. However, other participants were focused on getting the most cost effective service and were not concerned with how it is delivered.

Overall, workshop participants were in favor of performance standards for the utility. In terms of possible standards, many people commented that safety considerations and environmental standards are legislated and should be a given. Outage frequency and duration were the standards most often identified as priorities.

This is consistent with the results of the public opinion survey: 59 per cent of public opinion survey respondents felt that Nova Scotia Power should spend more money to decrease the frequency of power outages, while 33 per cent felt that Nova Scotia Power should spend as little as possible in order to keep power rates down.

It was fairly clear that a number of public session participants were not satisfied with the utility's response to a major storm earlier this year that caused major outages. Some suggested that there should be a system in place to either compensate people affected by significant power outages or a way to hold the utility accountable when they do not meet basic performance standards.

While outages were identified in workshops and on the survey as an important priority, 40 per cent of survey respondents felt that the top priority for Nova Scotia Power Inc. should be cost management. Managing costs is also related to achieving long-term rate stability which the overwhelming majority of people questioned wished to see. This is a goal that could also be linked into a performance-based management system.

Survey respondents were asked directly if they felt the Government of Nova Scotia should introduce a report card of performance standards to increase accountability when the UARB makes decisions regarding how much NSPI should earn on their investment—77 per cent of survey respondents strongly or generally supported the introduction of a performance standards report card. Only 13 per cent were not in favour.