What We Heard Report

PEI Energy Blueprint

DPCEC-4337

Methodology

Overview

In the spring of 2023, the Government of Prince Edward Island launched an extensive consultation process on the future of energy in the Province through the release of an Energy Blueprint Discussion Paper. The Discussion Paper formed the foundation of a wide-ranging consultation process that included public in-person sessions, on-line and telephone surveys, invitations for public and stakeholder sessions and requests for formal written submissions.

Public Sessions

A series of community conversations took place throughout May and early June. The public sessions were held from 6-7:30 pm. They were hosted in a drop-in format so attendees could freely contribute to the discussion without feeling scheduling limitations.

Date	**Location**	**Venue**
May 17, 2023	Alberton	Holland College West Prince Campus
May18, 2023	Kensington	Kensington Lions Club/Legion
May 24, 2023	North Shore	North Shore Community Centre
May 25, 2023	Charlottetown	Cody Banks Arena
June 1, 2023	Georgetown	Kings Playhouse

Questions hung on the walls at each session mirrored questions in the surveys, with in-person responses recorded. At each discussion facilitators took notes, with the information was recorded anonymously, but individuals were also encouraged to make further submissions to elaborate on their comments.

Surveys of PEI Resident's Views

Hundreds of PEI residents also participated in two sets of surveys. In the winter of 2023, 300 individuals were contacted by telephone on a random, representative sample basis. As of August 1, 2023, 408 people engaged with an online survey. The online survey was opened on May 1st, 2023 and responses included in this report were collected by August 1, 2023. For more information of the survey questions, see Appendix B. The site remains open for comments and submissions.

Public and Stakeholder Submissions

Emails were sent out to the list of organisations and groups in Appendix A inviting them to send in a written submission. At the community sessions, written submissions were also solicited. Summaries of the submissions collected are included in this report.

Organization of this Report

Overview

Based upon the feedback, we have organized the feedback we received for this report around nine different topics as follows:

- Feedback on Strategy Principles and Goals
- Constructing, Renovating and Operating Sustainable, Efficient Buildings
- Using Island Resources
- Creating Community Energy
- Building Reliable Lower Cost Energy Systems
- Producing and Using Clean Fuels (Geothermal, Biofuels and Hydrogen)
- Increasing Zero Emission Transportation (EVs and cleaner fuels)
- Ensuring Accountability
- Our new Energy Economy - Workforce and Business Growth

Each topic includes the feedback from the public community meetings, survey results, and summaries of stakeholder submissions.

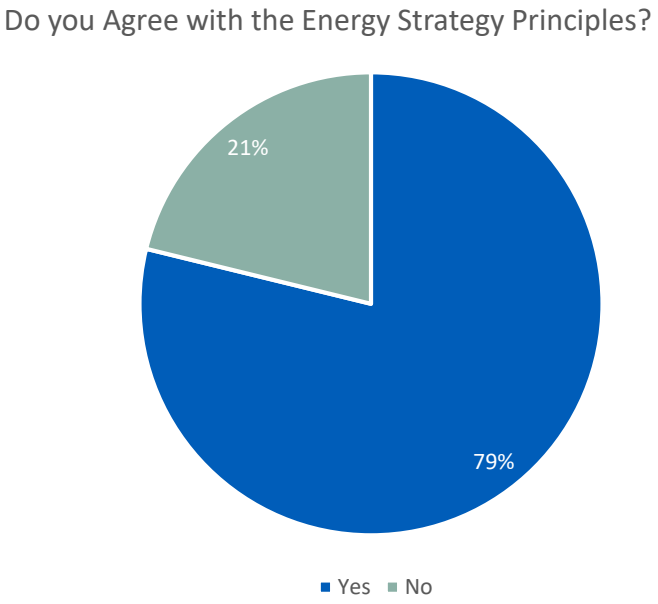
Support for Strategy Principles and Goals

The on-line survey and the community meetings asked people to indicate their support or disagreement with the Strategy Principles, Goals and Objectives. Written comments were also sought from participants and stakeholders.

The results showed strong alignment with the proposed foundation of PEI's Energy Strategy

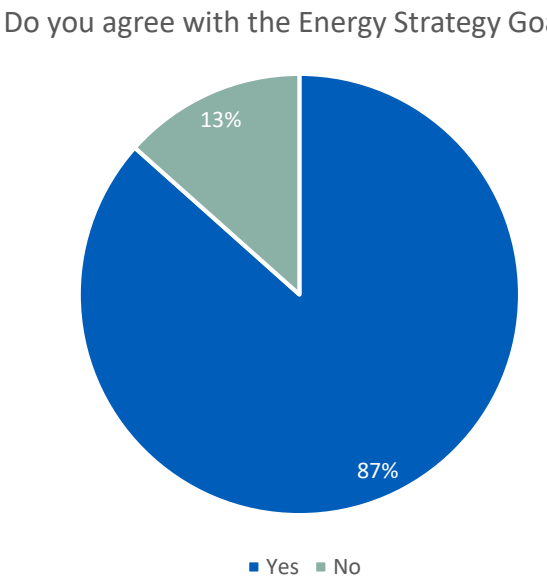
> The energy transformation to Net Zero will be fair, and equitable
>
> We will lower GHG emissions in a carefully planned manner without undue burdens on vulnerable Islanders or their businesses
>
> The Island Energy Future will include a diverse and balanced supply of net-zero energy
>
> We will have a new balance of on and off-Island supply from a wide range of energy resources (wind, solar, biofuels including biomass and hydrogen) to reduce risk on prices and security of supplies
>
> The energy transformation will take advantage of Island skills, experience, and ambition to build new economic opportunities
>
> We will align our energy policies and actions with opportunities to grow jobs and businesses on the Island consistent with the other two Principles.

Blueprint. 79% agreed with the Principles;



Become Canada's first Net Zero Province
Make reducing the amount of energy we use our priority
Build energy systems that are Accountable, Reliable and Resilient to climate change
Enable Affordable Energy from our Island
Capitalize on our Ability to Innovate and be Creative
Collaborate with others to Reduce Costs and Accelerate Change.

The results showed 87% of respondents agreed with the Goals

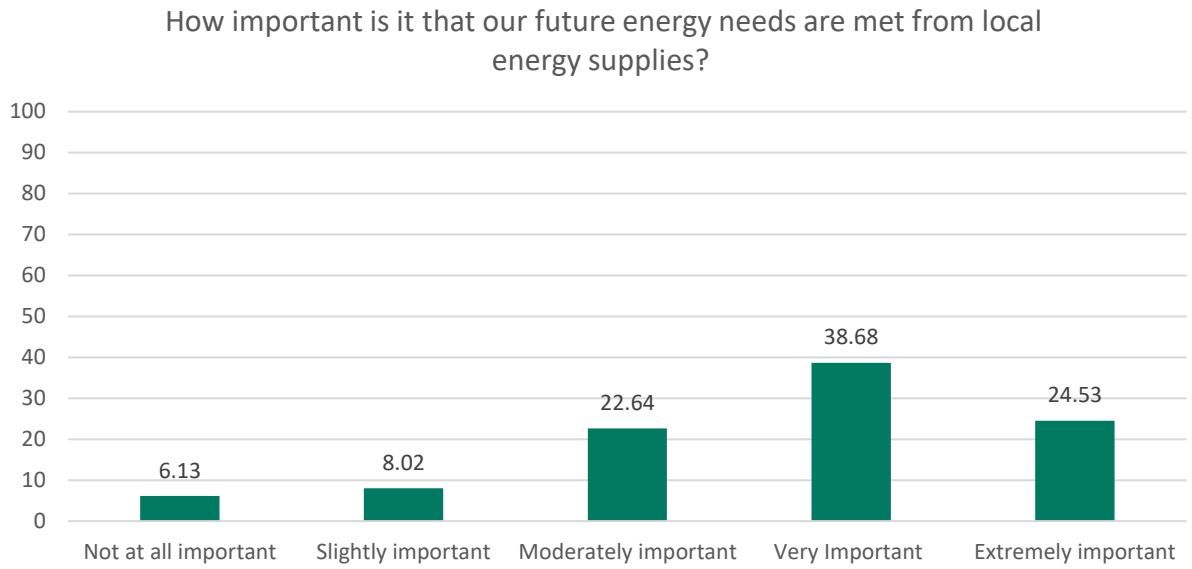


Given the opportunity to provide comment, some participants expressed agreement, but also expressed skepticism that the principles could be executed, and the belief that the goals would be very difficult to attain. Frequently those concerns related to the principle; suggesting much more would be needed to include those with lower incomes or otherwise marginalized.

Nevertheless, the comments also pointed to potential pathways for helping people. The pathways include energy efficiency and community energy. In fact, one comment suggested energy efficiency should be a principle rather than a goal and the work to become more efficient should go on almost forever. Another suggestion was to replace undue burden with a commitment to help vulnerable people and businesses manage the transition.

Other comments included suggestions that we utilize our local natural resources in energy generation. There was also debate around depending more on on-Island or off-Island resources,

although later questions suggest the overwhelming view is that we should meet our future energy needs from local energy supplies (61% saying it was very or extremely important).



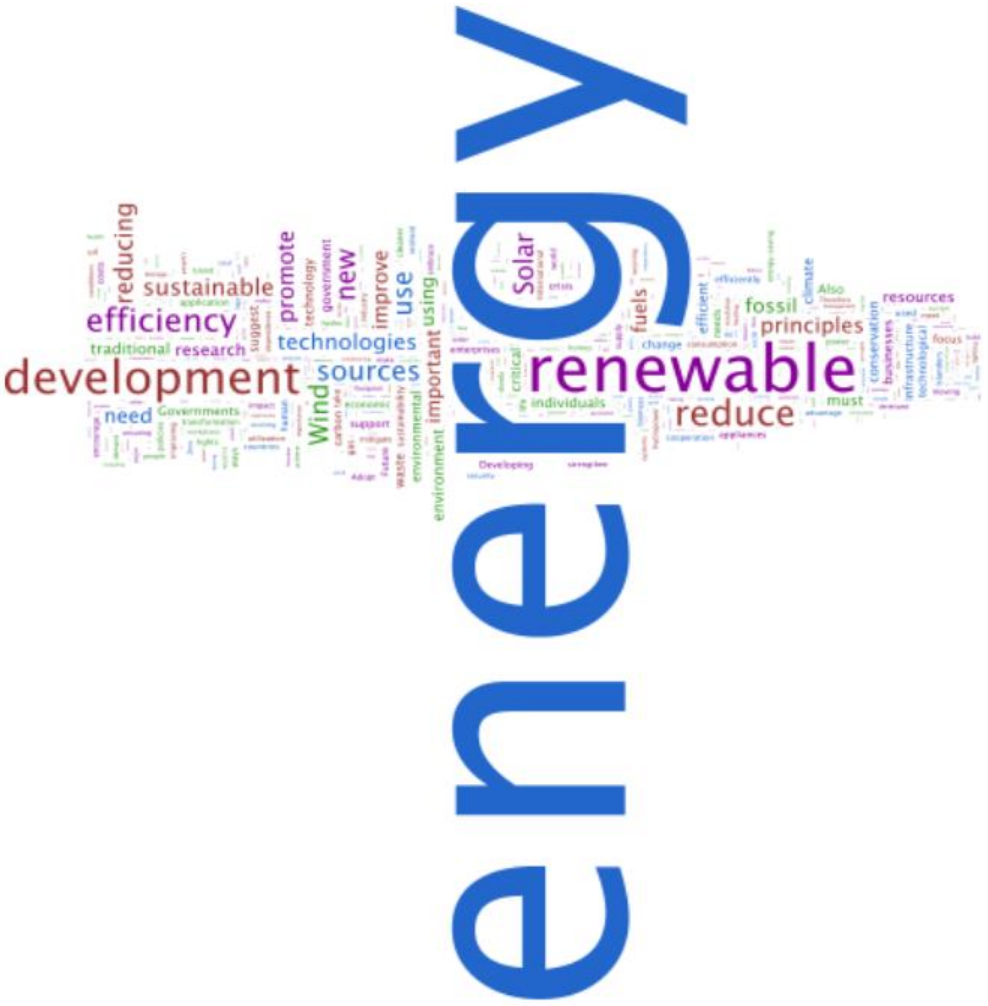
Debate also took place on which fuels should be referenced as clean fuels in the principles. There was some concern about biomass and some questions as to why nuclear should or should not be included. There were also comments about the need to clearly state that net zero means there will still be some role for fossil fuels, if that use is low and offset by carbon sinks. Environmental goals and the importance of working with indigenous peoples, as well as local stakeholders was also suggested.

With respect to goals, some suggested there be an emphasis on setting ones that were measurable. More emphasis on innovation and supporting research and development also came up in the comments. There was also an element of caution expressed by some who were concerned about adopting technologies that would later prove obsolete. However, there were others who saw the urgency on addressing climate change and wanted to move fast on everything to speed up the transition. More collaboration and partnerships with stakeholders, was also suggested, as was engagement with, and information for, everyone.

Finally, a handful of comments suggested public ownership was necessary for implementation of the strategy, although there was more agreement on public ownership of community energy systems than public ownerships of the grid and other utility functions.

Stakeholder Submissions Related to Principles and Goal

Further suggestions involve creating opportunities to align the energy strategies and goals with other government goals and priorities such as poverty reduction and anti-racism, highlighting education and improving energy literacy for island residents be added as a goal or as a strategy principle.



Source: Word Cloud generated from *Q2: do you agree with the Energy Strategy Goals?* responses

Constructing, Renovating and Operating Sustainable, Efficient Buildings

Overview

PEI residents generally understand and support the idea of first reducing the amount of energy we use, then what we do use should be sourced from increasingly net-zero carbon resources. To build upon the Island's successful track record on energy efficiency is important, but residents also recognize there is much more to be done. They have very specific suggestions on how to improve efficiency programs. However, the magnitude of the change required was only addressed by a few.

Summary of Community Comments

Community comments clustered around a handful of topics and solutions.

The idea of mandatory requirements in updated Building Codes and Standards and efficiency ratings was often mentioned. Key ideas included increasing minimum insulation r- values, solar integration, new standards for energy storage, mandatory energy ratings in the advertising of the efficiency for new homes, and tighter requirements for energy efficiency overall, new standards for batteries, and requiring energy ratings in the advertising of the efficiency for new homes.

The installation of air-source heat pumps was considered an important efficiency measure for many, and there was discussion about the implications of using them to replace oil during extreme cold snaps. Specially, the potential of ground-source heat pumps which maintained efficiency in colder temperatures was put forward. The benefits of heat pumps as a source of cooling in face of warmer summer weather was also noted. Finally, participants raised installation issues by some contractors, and insurance requirements.

People in the community sessions also spoke about the use of technology to improve the efficiency of heating and cooling as well as reducing the amount of energy used. They saw smart meter infrastructure (meters to read energy use very frequently and communication systems that send information to the utility as well as enabling the utility to communicate with the meter) as being the foundation of new energy saving technologies and possible variable rate designs.

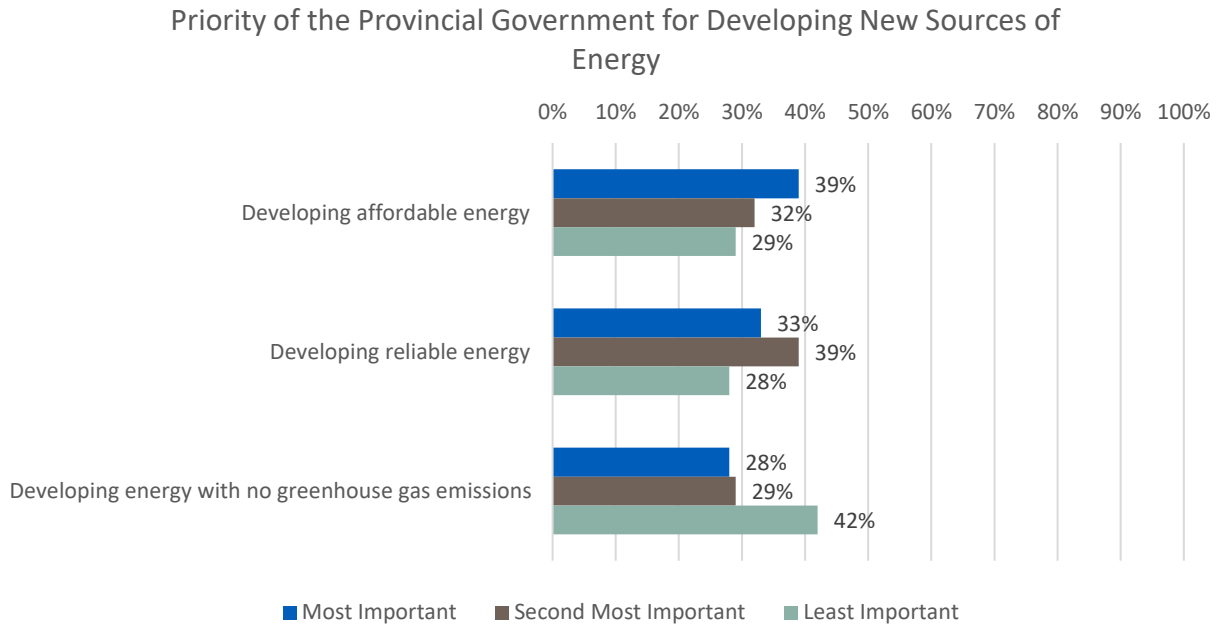
They also suggested more work be done to develop Island-specific demand management strategies, and incentives for low consumption. Collecting data to improve the transparency of solar cost, to better understand EVs use of electricity and charging patterns, and to improve efficiency performance was also seen as being important. Protecting personal information goes hand in hand with all data collection.

The commercial sector was also seen as being an important priority. Ideas such as capturing waste heat from commercial cooling systems as well as new incentives and financing support for commercial buildings and exploring localized heating options for communities were all mentioned.

Generally, increasing the availability of energy audits, making energy efficiency programs easier to navigate and emphasizing education on how to reduce energy usage was also suggested, as were suggestions to include the educating and involvement of more young people, tying the value of incentives and rebates to energy audits and providing ongoing incentives in the form of lower energy rates for energy efficient homes.

Telephone Survey Responses

When respondents were asked in the telephone survey, affordability was the top priority for the Province when developing new sources of energy. However, the responses were notably close in the distribution of their priorities indicating all three priorities (developing reliable energy, developing affordable energy and developing energy with no greenhouse gas emissions) are things that should be prioritized.



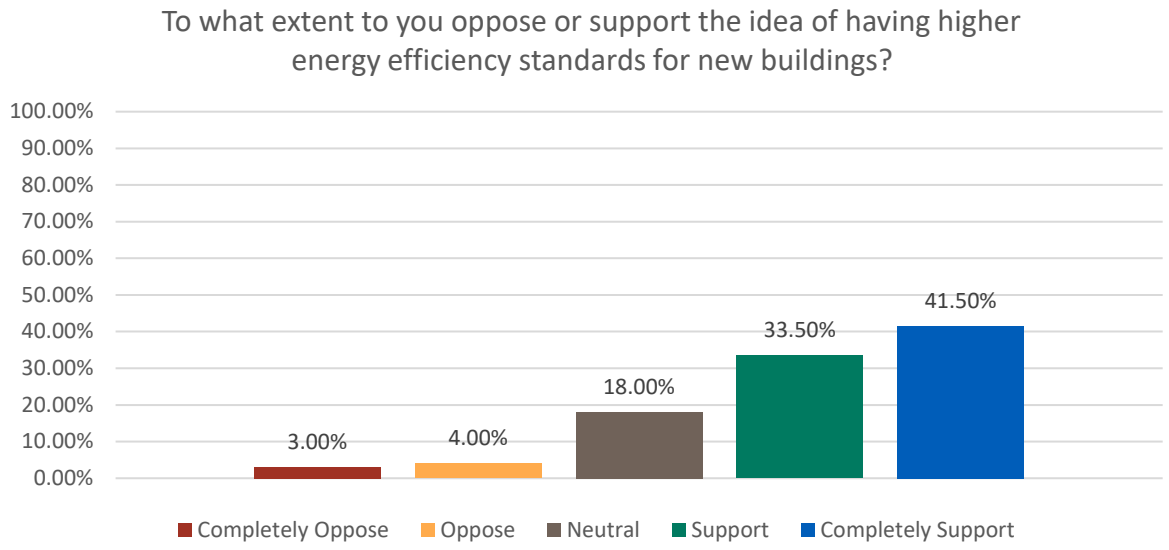
Narrative research results accurate to within plus or minus 5.6 percentage points in 95 out of 100 samples. Rounds to 100% at the hundredth decimal point.

Online Survey Responses

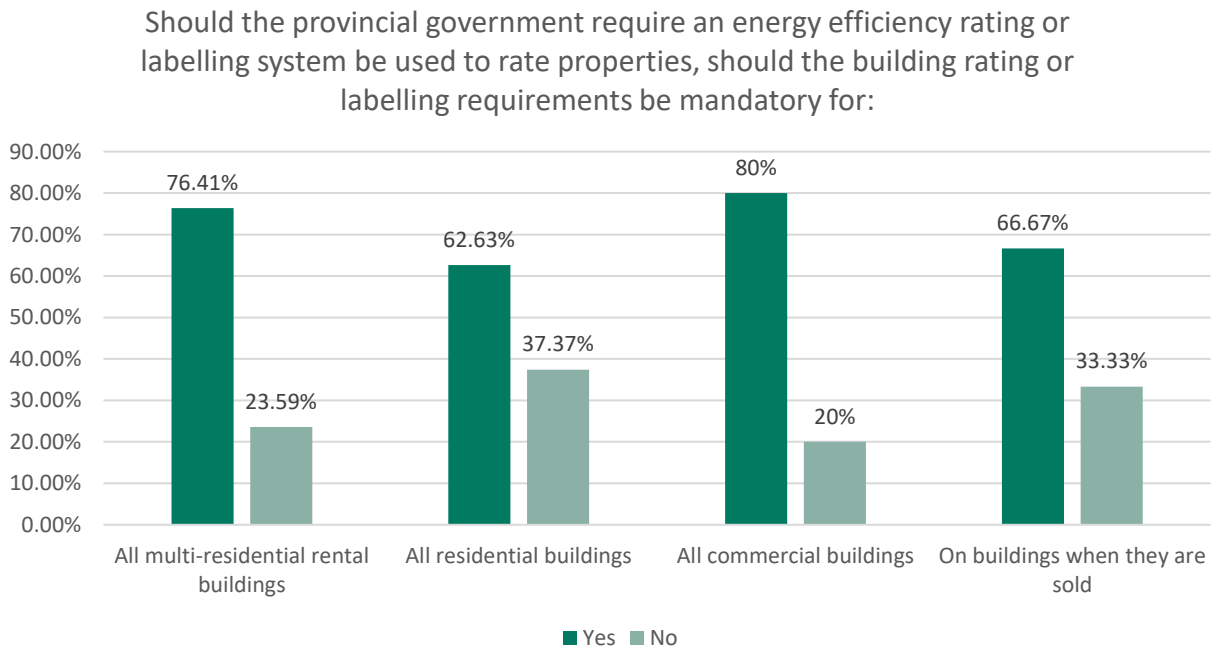
Respondents to the online survey appear to believe program design and execution is a critical area of focus on growing energy efficiency. When asked if they would upgrade the efficiency of their home if there was a program to help them get the work done with no money down and which provides low-cost long-term financing that starts to save money right away, a very high percentage said yes (89%).

Island residents were also asked if they preferred incentives to help them reach the goals in the Strategy compared to setting requirements in law. Incentives were favoured (56%), but support for quotas, codes and standards was also strong (44%). In a related question, there was

overwhelming support for high efficiency standards for new buildings (75% support or completely support).



Mandatory labelling of the efficiency rating of buildings also attracted considerable support. Labelling for commercial buildings attracted the most support (80%), followed by multi-residential buildings (76%). Mandatory labelling on buildings when they are sold also had good support (67%). Even residential building labelling regardless of being sold or not had good support (63%).



Stakeholder Submissions

Written submissions also mentioned building labelling and having high efficiency standards as a strong way to make buildings more energy efficient and that having publicly available property energy efficiency rating and labeling systems would create transparency. One submission also included the suggestion to create regulations to allow for energy data to be shared between utilities and energy providers.

Some submissions also identified key barriers to energy efficiency includes lack of access to support programs and the unique difficulties in rural areas. They also observed that residing in unincorporated areas at present can reduce the breadth of financing options available owing to some municipal governments providing their own financing programming. Additionally, smaller municipalities can have more limited resources to facilitate programming as well as supports.

Using Island Resources

Overview

PEI residents generally support the idea of using Island resources while also ensuring feasibility and cost-effectiveness. Most often wind and solar PV are seen as being part of Island resources. Some want Government to also consider marine renewables such as offshore wind, tides, and ocean thermal energy (for example using deeper seawater as a source of energy for cooling buildings). Producing renewable fuels on the Island was also strongly supported.

Summary of Community Comments

Prince Edward Island currently receives 80% of its electricity from off-Island supplies. Community meeting participants wanted a more balanced approach with a decreased dependence on those supplies. Some even saw new wind farms could lead to more export opportunities.

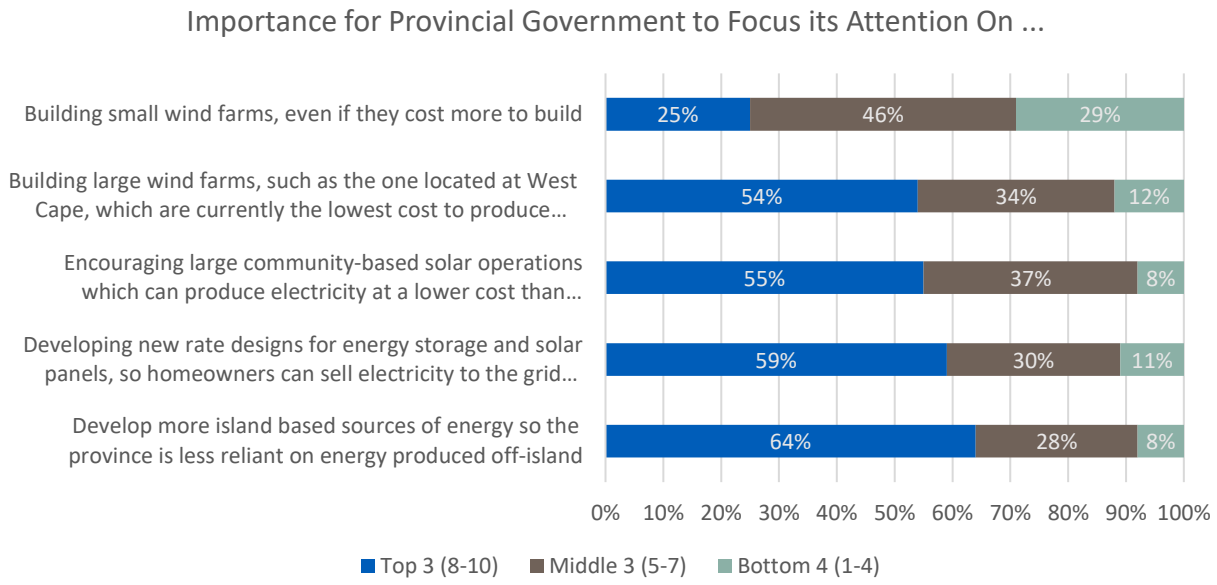
Creating more opportunities to invest in solar farms was suggested as was a call to allow residential solar systems to produce more electricity then they need and be compensated when the surplus is made available to the grid.

Onshore wind and solar aren't the only zero-carbon resources on the horizon. Some participants wanted consideration of ocean energy (tidal and ocean thermal) as well as wood chips. For many, consideration includes studies and analysis of costs and benefits – particularly from benefits from offshore wind and impacts from increased wind and solar farms. Local resources also include water, and some saw it (pumped hydro) as a potential storage solution for renewable energy. One participant wanted to improve communication about another local resource – waste-to-energy systems and its successes.

There were also some doubts as to the economic implications about using more wind energy and calls for more study about battery storage options. The concerns also included reliability and on-island resources' ability to withstand events like the 2023 winter polar vortex. Looking out into the next decade and next generation of GHG free technologies, although most saw nuclear power as an off-island solution – at some point, some thought small modular nuclear reactors could also be on on-island solution. Strategic objectives about diversifying power sources, and how locally generated electricity is transacted and valued in the provincial grid were also raised.

Telephone Survey Responses

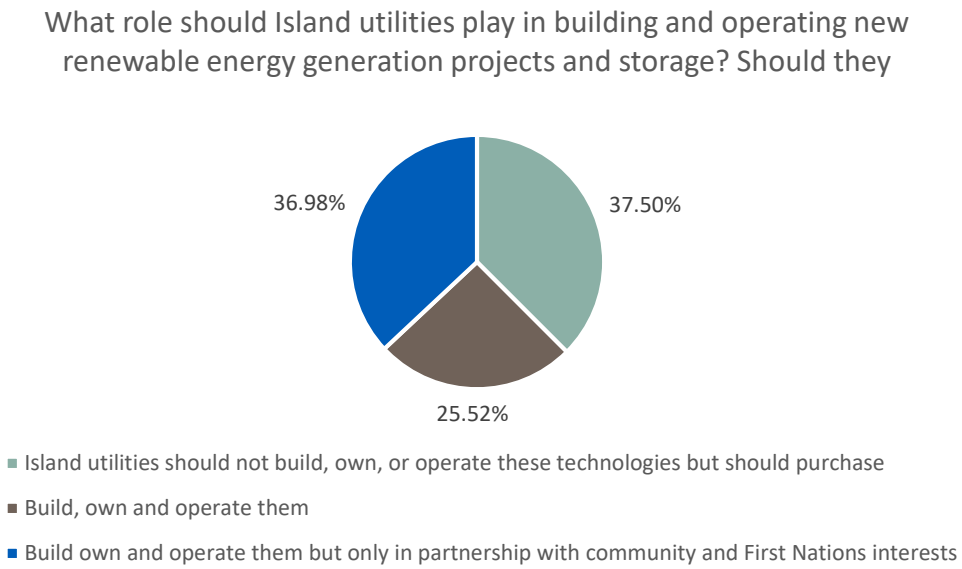
From the telephone survey, there is broad agreement that people want more island-based sources of energy as their top priority. Building larger wind farms which are currently the lowest cost form of renewable energy on the Island also gained strong support. The focus on affordability can also be seen in the drop off in support for small wind farms which may be more expensive to build.



Online Survey Responses

On the online survey respondents were asked if it was important to produce sustainable liquid fuels from Island resources. Examples included green hydrogen, renewable natural gas or fuels from biodegradable waste (biofuels). A significant majority (65%) thought producing these kinds of fuels from Island resources was very important or extremely important.

The online survey also explored the issue of who should build, own, and operate new energy and storage projects. Over two-thirds of respondents believe that the utilities should buy electricity from other entities (37%) or work with community groups or First Nations (37%). A minority (26%) thought Island utilities should be able to build, own and operate.



Stakeholder Submissions

Many of the written submissions received expressly supported wind energy on the island and were in support of expanding PEI's wind capacity. Submissions also pointed at the success of solar energy on the island and its possibilities for expansion, as well as considering offshore wind during the expansion of on island renewables resources. It was also indicated that future wind and renewables development should continue to ensure that Mi'kmaq rights and interests are reflected and accommodated and that first nations communities should have the ability to participate meaningfully in renewable energy projects.

Community Energy

Overview

The community discussions went beyond the topic of developing local resources into questions about who should own and develop those resources. Generally, there was support for community ownership/benefit models. The technologies suggested for community-scale were largely solar PV coupled with batteries, although the idea of new developments using district energy systems was also raised. The over-arching comments were about the need for collaboration and engagement. Comments from the Principles discussion were also noted with respect to program designs to support marginalized and disadvantaged groups.

Summary of Community Comments

The benefits of community involvement in community-scale energy developments have a values-based argument about local energy and community acceptance. Participants suggested community involvement meets the need for community buy-in and local ownership/stewardship of energy initiatives. Potential participants in community-scale projects included local municipalities, non-profits, communities of interest, and First Nations. Each group would need access to lower-cost capital. The potential for neighbourhood scale and cross-subsidization of solar and co-generation was suggested as a topic to explore further.

Community energy and local projects were also said to offer potential reliability and resiliency benefits. Some participants saw distributed energy resources of all kinds as providing quicker grid recovery after interruptions. One participant thought public ownership of the grid would allow distributed resources to contribute to restoration. More public information on energy resilience in general was suggested.

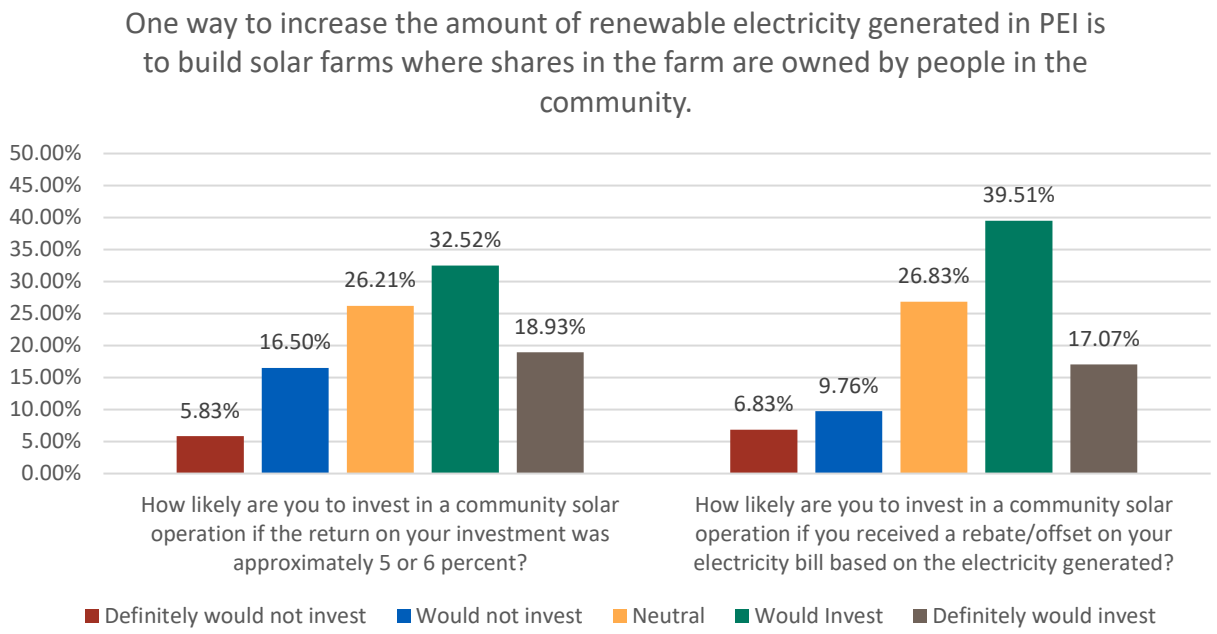
Finally, in terms of community energy resources, thermal storage district energy systems were also suggested as a possible community system. Some thought that at some point after coming down in cost, hydrogen could be considered as a potential fuel for community projects.

Telephone Survey Responses

The telephone survey shows encouraging large community based solar systems enjoys strong support from Island residents with few ratings as it being of low importance.

Online Survey Responses

The online survey suggests there is significant interest in two potential models for investment in Community Energy systems. The first model which called for a traditional financial investment matched by a 5-6% rate of return attracted significant (51%) interest in making such an investment, with a strong base of potentially committed investors (19%) suggesting they would definitely do so. In the other model, where the investment would result in an offset/rebate on electricity bills, a majority (57%) said they would invest, with a strong number (17%) saying they would definitely do so.



Stakeholder Submissions

Community energy was viewed favourably in the written submissions we received. It is viewed as a collaboration with communities to help meet the energy goals and increase economic growth and development for communities that will help meet equity outcomes. It was also argued that utility scale projects are more economic than residential scale projects, and thus could produce electricity at a lower cost to ratepayers. For these community energy projects to succeed community engagement is necessary.

Building Reliable Lower Cost Energy Systems

Overview

Managing the growth of new energy supplies to meet new energy needs will require careful planning, flexibility, and adaptation. Island residents see the growth of renewables, matched by storage as key elements of this transition. But in the near to midterm (2023-2030) at least, long-duration storage solutions will not be cost effective.

Many participants told us reliability will require fast-reacting energy supplies to fill in when renewables are not available, especially during peak periods of intense cold when air-source heat pumps do not operate as efficiently. Resiliency was also a major concern, particularly when Fiona showed the fragility of the connections many homeowners had to the grid.

The issue of system resiliency when facing extreme weather events was the subject of the most comment and attention during the community sessions. Many proposed solutions were detailed and practical, albeit, at additional cost to ratepayers. Exploring costs and benefits was a major theme.

Summary of Community Comments

Resiliency planning was on the minds of many community session participants. They suggested better preparedness and planning for extreme weather, including standby teams, and customer emergency preparedness coupled with improved communications during and after storms. Key areas of focus were on tree maintenance (both on building owner lands and utility corridors), and the value of underground infrastructure – although they wanted to see a clear report on costs and benefits of buying concrete poles and burying lines vs the costs incurred by damage and recovery from Fiona and Dorian – especially if there is expert advice that storm like that are likely to be more frequent.

Seeing extreme weather in winter also raised issues about undue dependence on grid supplied electricity, especially for heat. A diversified supply of electricity from on and off-Island is an important objective, but some community participants said we should assess the sufficiency of the current grid transmission capacity as well as its resiliency and capacity to manage future growth. They felt other parts of the system such as wind turbines and solar farms also need to be assessed on whether they are ready to withstand extreme weather events.

On a broader basis, there was concern about the grid's ability to support population growth and EV adoption, and whether there is a need for extensive retrofits of the grid for increased electricity usage, peak loads, and extreme weather. At a more technical level, there was the suggestion to investigate overloads and tripping-off issues as well as the use of antiquated technology in power lines. Despite recent replacements, some community session participants were worried about the reliability and resiliency of PEI's undersea electricity cables and plans to manage if the connection was broken. There were other concerns about the reliance on nuclear power from other provinces.

Another area of interest in building a reliable lower-cost energy system was focused on the need to diversify fuel resources by geography, fuel type and contract terms to build a clean fuel portfolio.

Within that context, there was some support for off-island new energy resources such as Small Modular nuclear Reactors (SMRs), hydrogen, and the Atlantic Loop to bring power from Hydro Quebec. In each case though, the language was to consider, and assess. This caution is at least partly due to known costs to develop and supply with availability on a commercial basis not until after 2030.

The speed of getting off fossil fuels is a concern of some. One participant suggested there is currently excessive focus on replacing heating oil, and there should be more consideration of the role of propane or natural gas. Others were concerned about the impacts of heat pumps on peak electricity costs, and some suggested there would be a need to create additional baseline power production of 8000 hours per year using thermal processes.

The opportunity to use renewable thermal processes for energy was suggested by some to provide more options rather than simply electrifying everything. Expanding district heating, and using geothermal resources were two suggestions. Using small amounts of fossil fuels such as propane was offered to avoid the peaking challenges from heat pumps. Investing in and exploring emerging thermal storage systems, such as the ceramic heaters being tested in Summerside, for all homes was also suggested, as was the idea of looking at the viability of utilizing sand silos for heat storage.

The growing potential for cost-effective electricity storage system was also a common discussion point. Many suggested we plan to take advantage of using vehicle batteries as storage options, or simply installing batteries at a building or a grid level using a smart grid. Some went as far to say we should provide incentives to install batteries in new buildings and enable all homes to store electricity. But on this point, there was also a caution to evaluate the impact of the high cost of home-based battery storage. Another caution was the current limitations and costs associated with longer-term electricity storage.

There were also suggestions to use new rates designs once advanced meter infrastructure was in place to encourage energy saving and shifting off peak demand, as well as allowing net metering across multiple properties.

Finally, the discussions generally supported the continued installation of solar, but some also wanted an assessment of the economics of utility-scale solar versus rooftop solar.

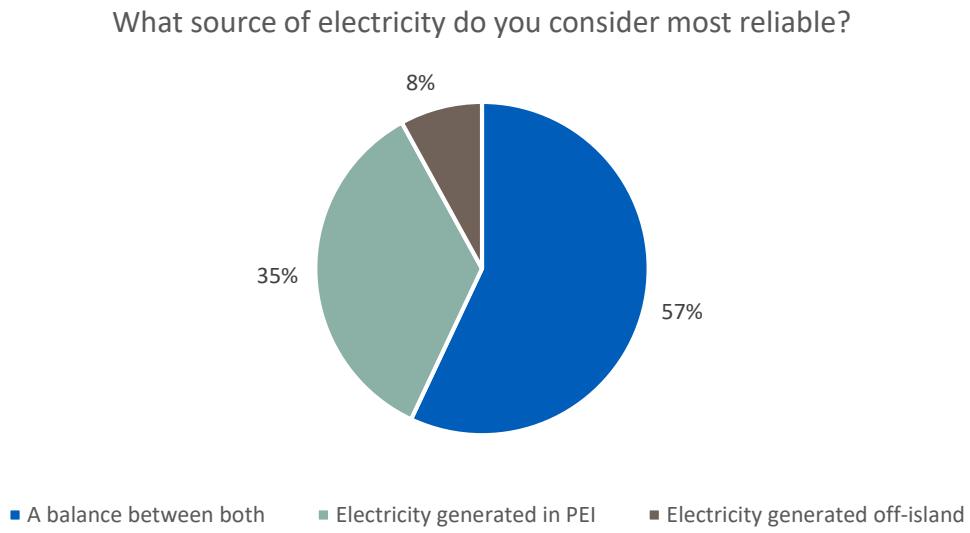
Telephone Survey Responses

On the telephone survey although developing more on-Island resources was the top priority, developing new rate designs to maximize the value of locally produced energy from energy storage systems and solar PV was a close second.

Online Survey Responses

Results from the online survey largely mirrored the telephone survey. Building large scale community solar was seen as a bit more important (62% rated it as an important priority or extremely important) while developing new rate designs also was a bit higher than the telephone survey (67% rated it as an important priority or extremely important). Building large wind farms was also a bit ahead of the telephone survey (63% rated it as an important priority or extremely important) while the priority for small scale wind was almost the same (26% rated it as an important priority or extremely important).

For a majority (57%) of respondents, a balance of electricity generated on the Island and electricity generated off Island would be considered most reliable while a strong minority (35%) felt on-island generation would be most reliable, the rest (8%) considered off-Island to be most reliable.



The online survey showed interest in new voluntary programs that use rate designs to help shift electricity away from peak times (and peak costs to the system) or manage demand automatically. When asked if they would sign up for a program that manages their hot water supply, so it is heated up during off-peak prices while receiving lower prices the rest of the time, with the ability to override it as needed, a majority said yes (56%).
In a companion question asking if they would sign up for a program that saves them electricity costs during the day and overnights while charging more for peak periods in the early morning/late afternoon early evening, interest was a bit lower (50%). In both cases, another quarter (27%) of respondent indicated they might sign up.

Stakeholder Submissions

Many of the comments from the written submissions were similar to those seen in the community conversations. Emphasis was placed on the need to increase the resiliency of the PEI energy systems to more frequent weather disturbances and the rapidly growing energy requirements. Some submissions point to promoting off-peak electrification and to reducing and rebalancing the electrical load, via storage. Other submissions suggested that the peak electricity load be managed by switching to a time-of-day rate structure. One submission pointed to a case study in Europe where they participated in energy and resource sharing.

Submissions also highlighted the need to educate the public and reduce/remove policy and regulatory barriers to individual participation as public engagement and buy in to new technologies as engaging the public will accelerate solutions like solar PV, batteries, vehicle to grid and demand response appliances. Additionally, promoting incentives will encourage communities and organizations to adopt a greener approach, although incentives should be balanced with regulations.

Producing and Using Clean Fuels (Geothermal, Biofuels and Hydrogen)

Overview

The need for clean fuels is clear – electricity alone is not likely to meet all our future energy needs. But exactly what can be considered a clean fuel is a complex issue. Island residents are divided on these issues. However, it is likely there is more agreement on the use of biomass and waste directly for heat or transformation into renewable fuels than there is for using biomass or waste to produce electricity. A recent report on the Sustainability of Biomass use by the Prince Edward Island Forestry Commission will also guide the development of the Energy Strategy.

Summary of Community Comments

When it comes to how we can use our forests as a source of renewable energy, there were many cautions raised by the community participants. There were many concerns about the carbon neutrality of burning trees, and the viability of biofuels made from crops or live trees as well as forestry-related topics such as clear-cutting, carbon regeneration, and carbon sinks. Another caution was whether Island forests can sustainably produce the quantity of biomass being forecast as being possible (140,000 MT of biomass annually). For some participants, it all comes down to the question of sustainability – and they want the Province to adopt sustainable forest management practices.

With those stipulations and conditions in mind, some thought there would be an opportunity to explore the possibility of a biomass plant in Summerside or western PEI. On a related but different topic, one participant suggested we investigate the idea of localized delivery services for wood pellets.

Using agricultural waste also attracted a mix of discussions over opportunities and concern. Opportunities included increasing local processing capacity for agricultural products and exploring localized heating options. Heat from waste plants and methane gas from livestock were two areas identified for potential use in district heating and energy production.

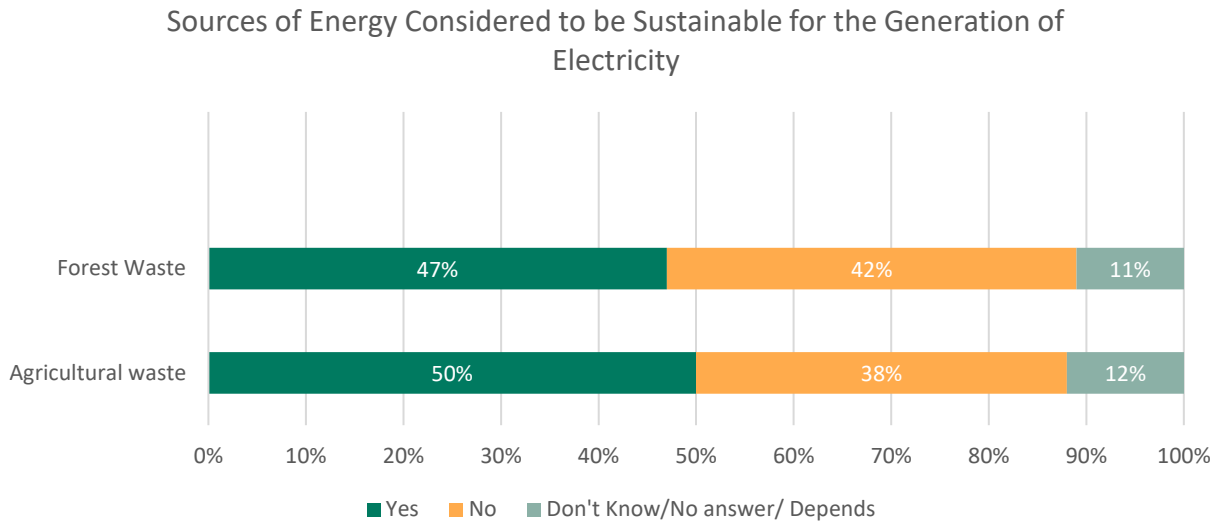
From a circular economy perspective, one participant suggested using lobster processing plant waste as a biofuel and another thought we could use vegetable oil from restaurants for vehicles. In a similar vein, one participant suggested we consider converting manure to biogas and sequestering biofuels as biochar in agricultural land. Others suggested using agricultural waste as feedstock for gas but also looking at the potential impact on other areas.

From a broader environmental perspective, a participant suggested a need to address concerns about agricultural practices and take steps to reduce GHGs from farming while another suggested we produce biofuels that are safe for the environment.

When it came to hydrogen, there was interest, but also questions about the future of hydrogen as an energy source on Prince Edward Island. Nevertheless, some suggested we should consider hydrogen production on the Island and make a public investment in it.

Telephone Survey Responses

The public meetings positively discussed the use of biofuels, hydrogen and similar sources of zero-emission fuels, but there was divided opinion on the telephone survey on the use of biofuels from agricultural and forest waste to be considered sustainable for the production of electricity. The challenges of ensuring sustainability will need to be addressed in the Energy Strategy.



Online Survey Responses

For the online survey respondents were asked about what fuels they would consider as sustainable. A slight majority rated forest waste biomass as sustainable (54%). However, when biomass was limited to being produced from sustainable resources and used for heating, support rose considerably (75%). Additionally, agricultural waste is seen as sustainable by a very large majority (78%).

Stakeholder Submissions

Some stakeholders noted that while electrification is a priority, there is still the need to take a balanced approach, which will include clean fuels. Hydrogen was identified as a clean fuel that has possible applications in PEI alongside biomass. Geothermal was also identified as an area to explore for heating systems. It was also noted by a stakeholder that not all fossil fuels have the same level of emissions, such as home heating oil and propane, and this fact can be considered as we transition to net-zero.

Government Commissioned Advice

The Government appointed a Forestry Commission to develop a forest recovery plan and a new Forest Policy for the province. The Commission began its work in February 2023 and determined that recent developments in the biomass sector required immediate analysis and decided that there is a need to share this information with government and the public to seek input on preliminary recommendations.

Increasing Zero Emission Transportation (EVs and Cleaner Fuels)

Overview

Prince Edward Island has a comprehensive Sustainable Transportation Action Plan released in 2019. Many of its themes were reflected in the comments, particularly the need to look beyond the emissions of vehicles to active transportation alternatives walking and biking. Island residents also see planning as an issue in active transportation. If we build carefully, more services will be more easily reached on foot or on bikes and increasingly e-bikes and scooters. However, there was also a significant number of comments and advice directed at the rise of electric vehicles – where affordability was seen as the major barrier to adoption, followed by the need to grow the public charging network for residents and tourists.

Community Comments

The community meeting discussions suggested government action to ensure take up of electric vehicles by setting targets such as a goal of 25% for pure electric vehicles. However more attention was paid to the idea of improving infrastructure.

Public awareness about availability and speed of charging networks raised calls for and the expansion of our charging infrastructure, thus reducing wait times. Improving reliability and maintenance of charging stations and networks was also raised. Creating standardized charging stations and providing training for mechanics and infrastructure for servicing EVs was offered as solutions to some of the potential problems. There were also suggestions that fleet conversions should be a priority to get the biggest reduction of GHGs per investment in batteries.

The role of electric vehicles in supporting the grid through discharging at a times of peak need also came up in the discussions. Specifically, it was suggested PEI explore the concept being tested in California for vehicle-to-grid systems. It was also suggested we also consider the current technology limitations of using such vehicles for grid integration. The need to introduce smart meters to unlock this potential was also raised.

The change from petroleum powered vehicles to electric vehicles also flagged areas of caution in the community meetings. Understanding the impact of EVs on road maintenance, including the loss of gasoline taxes was raised as was questions about the environmental impact of the disposal of EV batteries. Overall, it was suggested we consider the sustainability of electric vehicles including impacts of mining the critical minerals used in battery production.

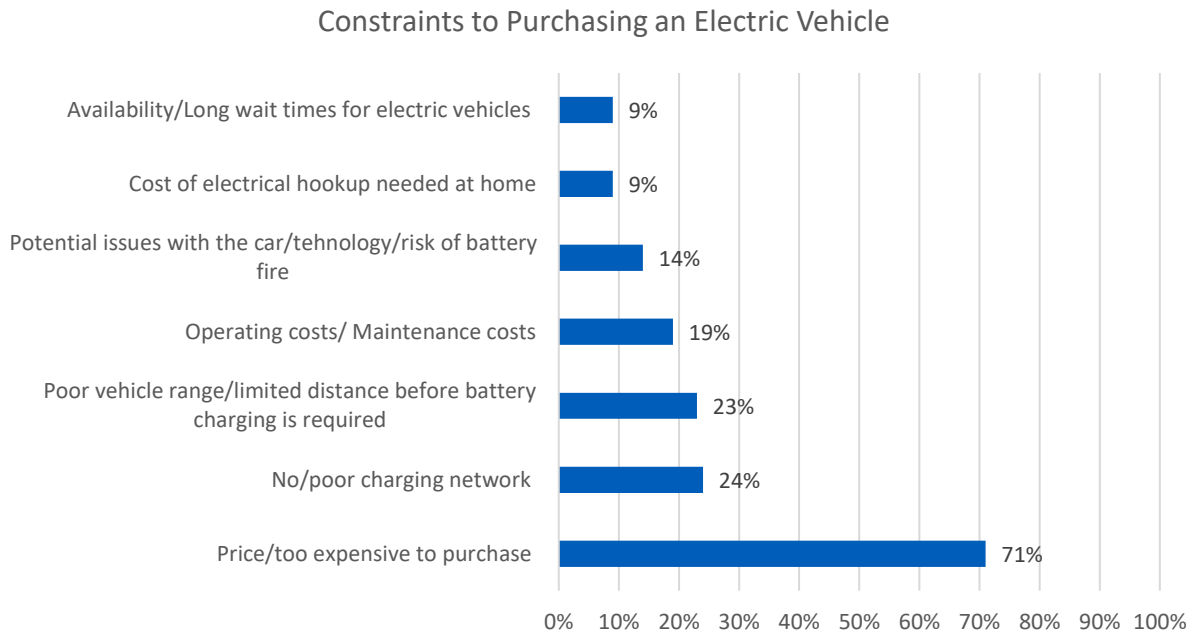
Not all the discussion was on the transition to electric vehicles. There were calls to improve public transportation and expand the active transport infrastructure. Promoting car-pooling and even eliminating personal cars were also offered as solutions, as was conservation initiatives such as limiting vehicle idling and increasing taxes on gas.

Telephone Survey Responses

Based upon the telephone survey, nearly one in five respondents said they are likely to make an electric vehicle their next purchase.

Given that few households currently own or lease an electric vehicle today (~4% in the survey), the response show significant near-term market demand for EVs.

Not surprisingly, the biggest reason for not buying an electric vehicle is price. Even though roughly two thirds of respondents are aware of federal and provincial rebates on the purchase of an electric vehicle, the cost of the vehicles remains a concern. As competition continues to increase and prices fall further, this issue may be addressed. The charging network and range before next charge are other significant concerns.



Online Survey Responses

A strong majority of participants in the online survey – 69% saw the range issue being solved by 2035. There was an almost even split – 51% against and 49% in favour – when it came to views on whether automobile dealers on the Island should be required to sell a certain percentage of zero-emission vehicles each year in PEI.

Stakeholder Submissions

The stakeholder submissions align with other received feedback, indicating the need to expand infrastructure that supports electric vehicles, like charging stations, and that the infrastructure needs to be equally distributed based on population and economic realities. Public and active transportation were also indicated as areas to be included in a strategy to increase zero emission transportation. Some stakeholders also indicated the possibilities of emerging technologies and the opportunity to use alternative fuels like hydrogen for transportation in the future.

Ensuring Accountability

Overview

Given the Island's mix of public and private utilities, the question of accountability for outcomes sparked a significant amount of feedback from Island residents. Solutions ranged from more effective regulatory oversight, improved energy planning, new ownership models to the establishment of performance standards for utilities. However, in the community sessions and through some stakeholder submissions, it became apparent that broad concepts of accountability brought out broad comments that went well beyond how to bring accountability to our energy systems.

Summary of Community Comments

Some community session participants wanted the government to consider public ownership of the electric utility, grid, and regional infrastructure. In discussions, some of them balanced this with also asking for more information on the implications to the public debt and other public investments from such an acquisition given the need to secure financing for more than $500 million in assets (2021) backed by more than $350 million in liabilities and more than $160 million in equity.

Regulatory oversight and organization often came up in the discussion at the Community Sessions. Some suggested we consider creating a separate body from the province's multi-sector regulator (IRAC) from energy decisions. Others suggested a single body for energy planning and regulations. One participant suggested a return to an independent board of directors for PEI Energy Corp. Another suggested the Government should have responsibility for technology and infrastructure.

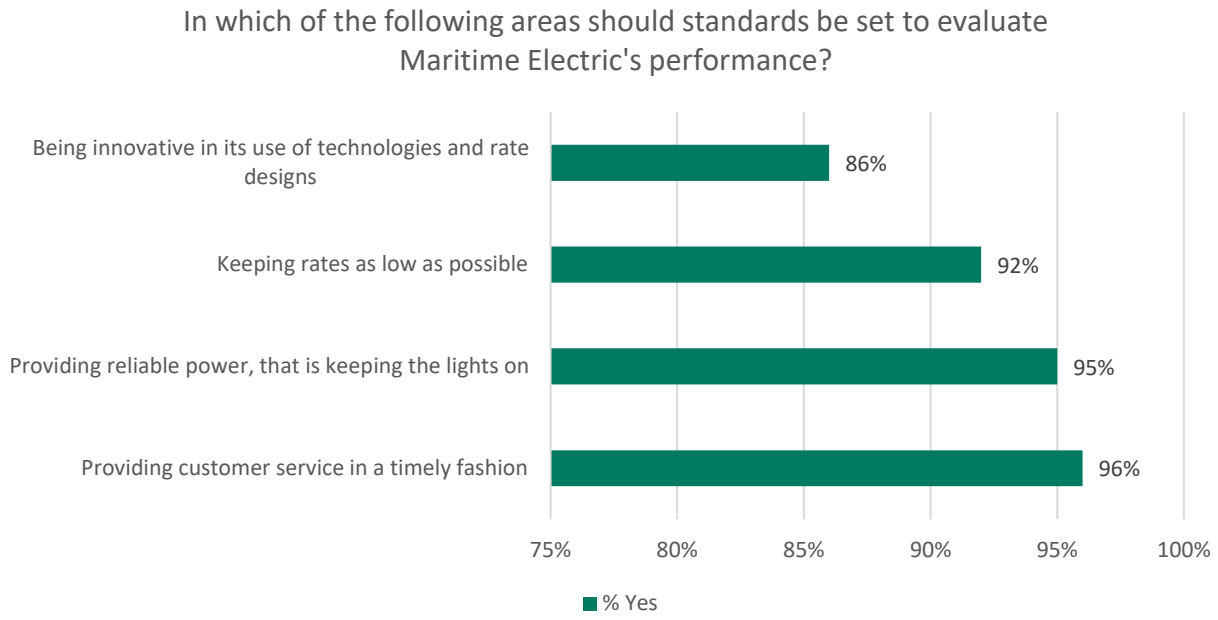
There were also some concerns about the accountability of energy providers with a suggestion to evaluate the return on investment for MECL shareholders on an annual vs. long-term basis.

The broader interest in community-based energy solutions, solar gardens, and energy resiliency also showed up as an accountability issue. Questions were raised about updates and expansions of power lines and substations, particularly regarding the Summerside area and the link to Western PEI. Some thought Government, insurance companies, and Maritime Electric needed to remove obstacles from off-grid development. There was a request that Maritime Electric be more involved in forestry planning if biomass is to become a fuel for them.

Accountability was linked to commercial confidentiality questions, particularly about the privacy of the Maritime Electric-NB power agreement. The role of nuclear power also appeared during accountability discussions with a suggestion to educate about nuclear power and small modular reactors. More generally there was a request to address concerns about rates, payback periods, and the rural-urban divide, as well as one suggestion to consider collaborating with NB Power and consider the advantages of being fully tied into their system.

Telephone Survey Responses

In the telephone survey there was high agreement on setting standards for Maritime Electric's performance on providing customer services in a timely fashion, providing reliable power, and keeping rates as low as is reasonably possible. Creating standards to ensure the utility is encouraged to be innovative in its use of technologies and rate designs was only a little bit lower.



Online Survey Responses

Through the online survey respondents were asked about responsibility for energy planning, with a majority (51%) saying the Government should be. The other respondents were roughly split on whether accountability should be given to the regulator IRAC, (14%) or the utilities for the province Maritime Electric or Summerside (14%), while a significant portion chose other (21%) where they proposed a variety of options, with many (20%) clustering around a partnership/multi-stakeholder process.

When respondents were asked who should be responsible for investing in the resilience of the island's energy supplies given the challenges of climate adaptation, 69% of respondents believed taxpayers should be responsible for electricity and 63% believed customers should be responsible for the resiliency of oil and gas resources.

When asked about how utilities should be held accountable for their performance 68% believed that penalties should be applied if the utility does not achieve the set standards whereas 32% believed that rewards should be given for achieving standards.

Stakeholder Submissions

Submissions encourage Government to effectively implement the Energy Strategy. Further, suggestions were made around accountability via regulation and regulatory evaluation of reporting standards and metrics. It was suggested that the design of standards and metrics should be undertaken collaboratively with the broader community.

Our New Energy Economy - Workforce and Business Growth

Overview

Although not deeply discussed during the community sessions, the ideas of more energy resource developments on the Island, more energy efficiency upgrades and tackling energy transformation issues using innovative approaches are all underpinned by notions of promoting economic development through more local jobs and businesses. However, one aspect of economic development – finding the workers with the skills to do the jobs – came up frequently in both community and stakeholder sessions.

Community Comments

In the community sessions, specific skills and training gaps were identified by some participants. Some thought we would need more training programs for line workers while others thought gaps existed for energy management positions including energy auditors for efficiency assessments. In some discussions though, there was agreement that the demand for new jobs in the move to decarbonize the Island economy would also require more people moving to PEI. One participant though made a case for doing better for those who are here already. They suggested to take advantage of Island skills, we must incentivize young people to go into the trades and see a future in it.

Online Survey Responses

Through the online survey, Island residents expressed optimism that the Island could be a leader in innovation by targeting key niche markets and specializations. (78%). The suggestion that leadership could come in the areas of research and development on managing intermittent renewables (34%), developing techniques to achieve the highest standards possible for net zero buildings (29%), and the development and testing of the viability of new clean fuels (28%) attracted the most support.

When it comes to workforce skills and development Island residents do not see any silver bullets to solve the problem. Instead, they strongly agree (88%) with an “all of the above” workforce strategy which builds skills and opportunities for Island residents while also seeking the skills and experience of others to move to Prince Edward Island? They also believe there are new approaches than can be taken to building technical skills. A strong majority agreed that remote and online learning can play a more important role in the future (71%).

Stakeholder Submissions

Several submissions noted that PEI can be a leader in innovation and has the ability to target niche markets during the energy transition.

Barriers and resource constraints were also identified, with labour shortages and higher operating costs among them. The importance of building the workforce was raised and proposed solutions included online and in person learning; programs should also be designed with sustainability at the forefront. The Clean Tech Academy was highlighted as an opportunity for building capacity and training for the future clean energy workforce in partnership with our

local post-secondary institutions. Also identified was the potential and desire of the emerging clean tech industry to improve equitability and inclusion in the energy sector, recruiting and providing training for people who are from marginalized communities to work towards gender and racial equality in the workforce.

Next Steps

The Government intends to use this Report, the results of energy system modelling, energy sector reports, studies and news on sector developments and trends to compile an Energy Strategy for PEI that is consistent with our other environmental and social priorities. The Strategy is planned to be released later in 2023, followed by detailed operational plans. We welcome further feedback at each step of the way. The Strategy will continue to be updated on a regular basis.

Appendix A

The following is a list of departments and groups internal to government that were contacted by email inviting them to submit feedback by either submitting a formal response or by holding a meeting. Those contacted were also encouraged to complete and share the survey and the Discussion Paper.

Provincial Department/Entity	**Specific Engagements**
Deputy Ministers' Council	
Executive Council Office	
	Indigenous Relations Secretariat
	Anti-Racism Policy Advisor
Environment Energy and Climate Action	
	Forestry Fish and Wildlife Division
	Sustainability Division
Transportation and Infrastructure	
	Public Works and Planning Division
Agriculture	
Education and Early Years	
	Interministerial Women's Secretariat
Fisheries, Tourism, Sport and Culture	
Health and Wellness	
Economic Development Innovation and Trade	
Finance	
Housing, Land and Communities	
Social Development and Seniors	
Workforce, Advanced Learning and Population	

The following individuals and groups were sent emails inviting them to the community conversations to complete the survey and share the survey and the invite to the public meetings with their respective members. Additionally, the organisation or group was invited to send a written submission.

Ameresco
Aspin Kemp
Black Cultural Society
Blue Wave
Canadian Bar Association (PEI Branch)
Canadian Home Builders Association PEI Chapter
Cavendish Farms
CFIB

Charlottetown Metal Products
CLEAN Foundation
Community Legal Information Association of PEI
Cooper Institute
Dick Arsenault
DME Process Systems
ENEGIE
Engineers PEI
Federation of Municipalities
Frontier Power Solutions
Greater Charlottetown Area Chamber of Commerce
Holland College
Institute of Island Studies
Invenergy
IRSA – Immigrant & Refugee Services Association PEI
Island Nature Trust
Island Technology Professionals
L'NUEY
Law Foundation PEI
Law Society of PEI
Learning Disabilities Association
Lion Electric
MacDougalls Steel Erectors
Maritime Bus/T3
Maritime Electric
Mi'kmaq Confederacy of PEI
Natural Forces
Net Zero Advisory Committee
PACE Atlantic
PEI 4H Council
PEI Association for Community Living
PEI BioAlliance
PEI Construction Association
PEI Energy Systems – Enwave
PEI Environmental Advisory Council
PEI Federation of Agriculture
PEI Fishermen's Association
PEI Petroleum Marketers Association
PEI Potato Board
PEI Real Estate Association
PEI Road Builders and Heavy Construction Association
PEI Seafood Processors Association

PEI Watershed Alliance
PEI Women’s Business Association
PEI Women’s Institute
PEI Woodlot Owners Association
Pride PEI
RE-FUEL’s Renewable Fuels Inc
ResourceAbilities
Summerside Electric
The Environmental Coalition of PEI
The Farm Centre Association
Tourism Industry Association of PEI
University of Prince Edward Island
Upcycle Green Technology
UPEI Climate Lab
UPEI Engineers
UPEI School of Climate Change and Adaptation
Vestas
WEICan

Appendix B

Survey Details

The survey questions were developed in collaboration with Narrative Research, an Atlantic Canada leader in such work. The questions included ones designed to obtain a specific response (a yes or no, or on a scale of one to five, how would you rate…) and open-ended questions where people could offer comments in their own words. This approach was common to the telephone survey conducted by Narrative directly, and the design of similar questions for our online survey.

For the telephone survey, demographic information such as residency status in PEI, age, gender, language was collected to ensure the sample was representative of people living on the Island.

The bulk of both surveys questions solicited views on a range of energy issues facing Prince Edward Island and how they thought the Government should address them. Respondents were also asked to offer views on key actions to address the issues they identified.

The online survey allowed participants to be anonymous or have their name entered into a draw for a PEI food island gift card.

Potential survey participants for the online survey were solicited through invitation emails to stakeholders, an invitation to a list of individuals who signed up to be notified of future energy matters from the 2016/17 PEI Energy Strategy. The telephone survey called a randomly selected number of residents of PEI. Promotions were also sent out via Government of PEI communication channels, the website, social media posts.

Demographics of completed respondents to Online Survey

Variable	Percentage of Sample
Residency	
Resident of PEI	97.73%
Seasonal Resident of PEI	1.7%
Not a PEI Resident	0.57%
Age	
24 and under	0.57%
25-34	12.50%
35-44	18.75%
45-54	18.75%
55-64	23.30%
65-74	20.45%
75 and older	5.68%

Which County in PEI do you live?	
Kings	13.64%
Queens	69.32%
Prince	17.05%
Gender	
Male	55.15%
Female	43.64%
Non-Binary	1.21%
Other gender not listed	0%
Highest Level of Education Completed	
Some High School	1.16%
Graduated High School	2.91%
Some College/University	8.14%
Graduated College/University	56.98%
Post Graduate	30.23%
Other	0.58%
Income Level	
Less than $25,000	2.70%
$25,000 - $50,000	13.51%
$50,000 - $75,000	20.27%
$75,000 - $100,000	22.30%
$100,000 - $150,000	23.65%
More than $150,000	17.57%
Do you currently rent or own your home	
Own	83.33%
Rent	12.07%
I have another living arrangement	4.6%

Appendix C
Online Survey Questions

PEI Energy Blueprint Survey

The PEI Energy Corporation (and the Department of Environment, Energy and Climate Action) is seeking feedback with respect to energy related legislation and policy and public perceptions on the current status of energy on PEI. Information gathered through this survey will support Government making decisions with respect to legislation and policy development concerning energy.

We value your opinion and we're hoping to get your feedback on the future of energy for our province. Complete this brief survey and you can enter yourself for a chance to win a Food Island gift card.

If you have any questions about the survey please contact sustainable@gov.pe.ca.

Principles and Goals

1. Do you agree with the following Energy Principles?

- The energy transformation to Net Zero will be fair, and equitable

We will lower GHG emissions in a carefully planned manner without undue burdens on vulnerable Islanders or their businesses

- The Island Energy Future will include a diverse and balanced supply of net-zero energy

We will have a new balance of on and off-Island supply from a wide range of energy resources (wind, solar, biofuels including biomass and hydrogen) to reduce risk on prices and security of supplies

- The energy transformation will take advantage of Island skills, experience, and ambition to

build new economic opportunities

We will align our energy policies and actions with opportunities to grow jobs and businesses on the Island consistent with the other two Principles.

- ◯ Yes
- ◯ No

Comments/Suggestions on Energy Principles:

Do you agree with the following Energy Strategy Goals?
- Become Canada's first Net Zero Province
- Make reducing the amount of energy we use our priority
- Build energy systems that are Accountable, Reliable and Resilient to climate change
- Enable Affordable Energy from our Island
- Capitalize on our Ability to Innovate and be Creative
- Collaborate with others to Reduce Costs and Accelerate Change

- ◯ Yes
- ◯ No

Comments/Suggestions on Energy Strategy Goals:

Recognize the need for Rapid Action on Climate Change

2. A Net-Zero carbon energy system may produce some greenhouse gas emissions but they are

offset by reductions elsewhere. Zero carbon energy sources include hydro, wind, solar, nuclear as well as biomass and gas made from renewable fuels.
In recent times, the price of these forms of energy have been higher for consumers, alongside upfront capital costs for necessary infrastructure, but costs are coming down while fossil fuels are becoming more expensive as the federal government has placed a rising price on carbon.

	Not At All Committed	Not Committed	Neutral	Committed	Very Committed
Knowing the above, over the next several years, how committed are you to increasing your use of zero carbon energy for your home, vehicle, and business needs, even if it may cost you more?	○	○	○	○	○

3. What would help you increase your use of zero-carbon energy sources in the next several years? [select all that apply]

- [ ] Access to financing/low-cost financing
- [ ] Incentives/rebates/subsidies
- [ ] Information on zero-carbon/net-zero energy sources
- [ ] Cheaper/lower cost of electricity/energy
- [ ] Availability/access to energy sources
- [ ] Better/ more reliable options and technology
- [ ] Government support/commitments/regulation changes
- [ ] Other
- [ ] None of the above

4. Of the following options to ensure Islanders reach our Goals for Net-Zero, which do you prefer?

- ◯ Set requirements in the law. This includes building codes, fuel standards, and quotas. Such measures tend to be very effective in reaching the goal but may be more challenging for some sectors or some people.
- ◯ Use incentives to encourage greener buildings, more electric vehicles etc.

5. If we are to manage the transition fairly and equitably without undue burden on vulnerable people, which if any of the options would you consider fair?

- ☐ A rate design that has a lower cost for a block of electricity equal to that of an average user, but a higher rate for use above average.
- ☐ Taxpayer support for those who face high energy costs but have low incomes.
- ☐ Energy efficiency upgrades reduce the amount of energy used and thus the cost.
- ☐ Other

Taking Advantage of Declining Costs, New Technologies, and Rate Designs

6. Do you expect average Electric Vehicles to achieve a range greater than or equal to that of a combustion vehicle on a single tank of gasoline? Do you think it will happen by

- ◯ 2025 - 2030
- ◯ 2030 - 2035
- ◯ After 2035

7. Are you in favour of setting requirements for dealers to sell a certain percentage of zero-emission vehicles each year in PEI?

- ◯ Yes
- ◯ No

8. One way to increase the amount of renewable electricity generated in PEI is to build solar farms where shares in the farm are owned by people in the community.

	Definitely would not invest	Would not invest	Neutral	Would invest	Definitely would invest
How likely are you to invest in a community solar operation if the return on your investment was approximately 5 or 6 percent?	◯	◯	◯	◯	◯
How likely are you to invest in a community solar operation if you received a rebate/offset on your electricity bill based on the electricity generated?	◯	◯	◯	◯	◯

9. How important is it that our future energy needs are met from local energy supplies?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
.	◯	◯	◯	◯	◯

10. What source of electricity do you consider most reliable?

- ◯ Electricity generated in PEI
- ◯ Electricity generated off-Island
- ◯ A balance between both

11. In recent years, new technologies to produce and manage electricity have become cost effective. Given that PEI now has less than 12 years to reach its goal of having net-zero energy supplies, how important do you think each of the following actions are for the provincial government.

	Not at all Important	Slightly Important	Moderately Important	Very Important	Extremely Important

Building large wind farms, such as the one located at West Cape, which are currently the lowest cost to produce renewable electricity.	○	○	○	○	○
Building small wind farms, even if they cost more to build.	○	○	○	○	○
Encouraging large community-based solar operations which can produce electricity at a lower cost than residential solar systems.	○	○	○	○	○
Developing new rate designs for energy storage and solar panels, so homeowners can sell electricity to the grid when demand is high.	○	○	○	○	○

Accelerating the Adoption of Beneficial Electrification

12. What are the major barriers to making your home or business more energy efficient? [select all that apply]

- [ ] Even with incentives, cost is too high
- [ ] Lack of credit to finance the work
- [ ] Lack of knowledge on what to do
- [ ] Lack of knowledge on the benefits of efficiency
- [ ] Availability of labour / long wait times
- [ ] Program paperwork and administrative requirements
- [ ] Too many programs, can't figure them all out
- [ ] Cant afford to pay for the upgrades and wait to get my money back (upfront costs)
- [ ] Other

13. Would you upgrade the efficiency of your home if there was a program to help you get the work done with no money down and provides low-cost long-term financing that starts to save you money right away?

- ◯ Yes
- ◯ No

14. Please select any of of the following options that efficiency programs should include.

- ☐ Building-based renewables and storage
- ☐ New home-based electric vehicle chargers
- ☐ New net-zero power equipment in boats
- ☐ New efficiency equipment on farm machinery
- ☐ New efficiency measures for businesses

15. Would you sign up for any of the following voluntary programs to save electricity bills

	Yes	No	Maybe
A program that manages my hot water supply so it is heated up during off-peak prices while receiving lower prices the rest of the time, with the ability to override it as needed.	◯	◯	◯
A program that saves me electricity costs during the day and overnights while charging me more for peak periods in the early morning/late afternoon early evening?	◯	◯	◯

16. Some jurisdictions in Canada have set high energy efficiency standards for new buildings. While this may result in higher construction costs, it is expected that those extra costs would be recovered over time by lower operational costs.

	Completely Oppose	Oppose	Neutral	Support	Completely Support
To what extent do you oppose or support the idea of having higher energy efficiency standards for new buildings in PEI.?	◯	◯	◯	◯	◯

17. To promote energy efficiency awareness and encourage efficiency upgrades, should the provincial government require an energy efficiency rating or labelling system be used to rate properties, should the building rating or labelling requirements be mandatory for:

	Yes	No
All multi-residential rental buildings	◯	◯
All residential buildings	◯	◯
All commercial buildings	◯	◯
On existing buildings when they are sold	◯	◯

Supporting a Shift to Sustainable Fuels

18. With the phasing out of oil and gas, liquid fuels may still be very important. They don't have to be made from petroleum, they could be made from renewable resources and become Green Hydrogen, Renewable Natural gas (for example methane captured from landfills) or fuels made from bio-degradable waste (bio-fuels).

	Not at all important	Not important	Neither important to unimportant	Important	Very Important
How important is it that we produce these kinds of fuels from Island resources?	◯	◯	◯	◯	◯

19. Do you see forest waste (biomass) as being a sustainable source of energy?

◯ Yes

- ◯ No
- ◯ Do not know

Do you see agricultural waste (biomass) as being a sustainable source of energy?

- ◯ Yes
- ◯ No
- ◯ Do not know

20. Should biomass from sustainable resources continue to be/become a significant source of energy for heating on the Island?

- ◯ Yes
- ◯ No
- ◯ Do not know

Driving Innovation and Economic Development

21. Do you believe PEI can be a leader in innovation by targeting key niche markets and specializations?

- ◯ Yes
- ◯ No

22. What key areas of innovation do you think PEI should target? [select all that apply]

- ☐ Research and development on managing intermittent renewables
- ☐ The development and testing of the viability of new clean fuels

- [ ] Developing techniques to achieve the highest standards possible for net zero buildings
- [ ] Other

23. What role should Island utilities play in building and operating new renewable energy generation projects and storage? Should they

- ◯ build, own and operate them
- ◯ build, own and operate them but only in partnership with community and First Nations interests
- ◯ Island utilities should not build, own, or operate these technologies but should purchase the energy generated from them

Building the Workforce

24. Do you agree with an “all of the above” workforce strategy which builds skills and opportunities for Islanders while also seeking the skills and experience of others to move to Prince Edward Island?

- ◯ Yes
- ◯ No

25. Do you think remote and online learning can play an important role in building technical skills which has traditionally been “hands on” learning?

- ◯ Yes
- ◯ No

26. Do you have any comments or suggestions about the need for new skilled personnel in the workforce?

Improving Accountability

27. Who should be responsible for energy planning in PEI?

- ◯ Utilities (Summerside and Maritime Electric)
- ◯ Regulator (IRAC)
- ◯ Government
- ◯ Other

28. Which of the following statements best describes how you believe Maritime Electric, as a regulated utility, should be held accountable for its performance?

- ◯ Penalties should be applied if Maritime Electric does not achieve set standards
- ◯ Rewards should be provided if Maritime Electric achieves set standards

29. In which of the following areas should standards be set to evaluate Maritime Electric's performance? [select all that apply]

- ☐ Providing reliable power, that is keeping the lights on
- ☐ Providing customer service in a timely fashion
- ☐ Keeping rates as low as is reasonably possible
- ☐ Being innovative in its use of technologies and rate designs

☐ Other

30. Considering the challenges of climate adaptation, who should be responsible for investing in the resilience of the Island's energy supplies?

	The ratepayers/ customers through prices	The taxpayers through government supports
Electricity	○	○
Oil and Gas	○	○

Final Input

31. Please rank the following three in terms in term of where the provincial government should place priority when developing new sources of energy?

Developing reliable energy

-- Select --

Developing energy with no greenhouse gas emissions

-- Select --

Developing affordable energy

-- Select --

32. What should be the top priority for an energy transformation?

Improving energy efficiency

-- Select --

Developing and using new technologies to produce cost-effective green energy on the island

-- Select --

Building infrastructure that is more resilient and resistant to climate change

-- Select --

33. What final advice do you have for the Government in building an Energy Strategy for PEI?

Demographics

Are you a resident of PEI?

- ◯ Yes
- ◯ No
- ◯ Seasonally

What age are you?

- ◯ Less than 18
- ◯ 18-24
- ◯ 25-34
- ◯ 35-44
- ◯ 45-54
- ◯ 55-64
- ◯ 65-74
- ◯ 75 or older

In which county do you live?

- ◯ Kings

- Queens
- Prince

Postal Code

Do you identify as

- Male
- Female
- Non-binary
- Another gender not listed (Please specify: ___)
- Prefer not to say

What is the highest level of education you have completed?

- Some high school
- Graduated high school
- Some college/university
- Graduated college/university
- Post Graduate
- Other
- Prefer not to answer

Which of the following broad income categories best describes your total household income before taxes in the last year?

- ◯ Less than $25,000
- ◯ $25,000 - $50,000
- ◯ $50,000 - $75,000
- ◯ $75,000 - $100,000
- ◯ $100,000 - $150,000
- ◯ More than $150,000
- ◯ Prefer not to say/don't know

Do you currently rent or own the home where you live?

- ◯ Rent
- ◯ Own
- ◯ I have another living arrangement
- ◯ Prefer not to answer

- ☐ Please check this box if you wish to be entered for a chance to win a Food Island gift card
- ☐ Please check this box if you wish to be on our mailing list to be informed about future engagement sessions and the release of the "What We Heard Report"
- ☐ Please check this box if you do not wish to provide any contact information and do not wish to enter into the Food Island gift card draw

Contact Information

First Name

Last Name

Phone

Email Address


Prince
Edward
Island
CANADA