

CITIZENS' ASSEMBLY ON ENERGY AFFORDABILITY

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This report was produced with support from
New Brunswick's Environmental Trust Fund.

March 2023

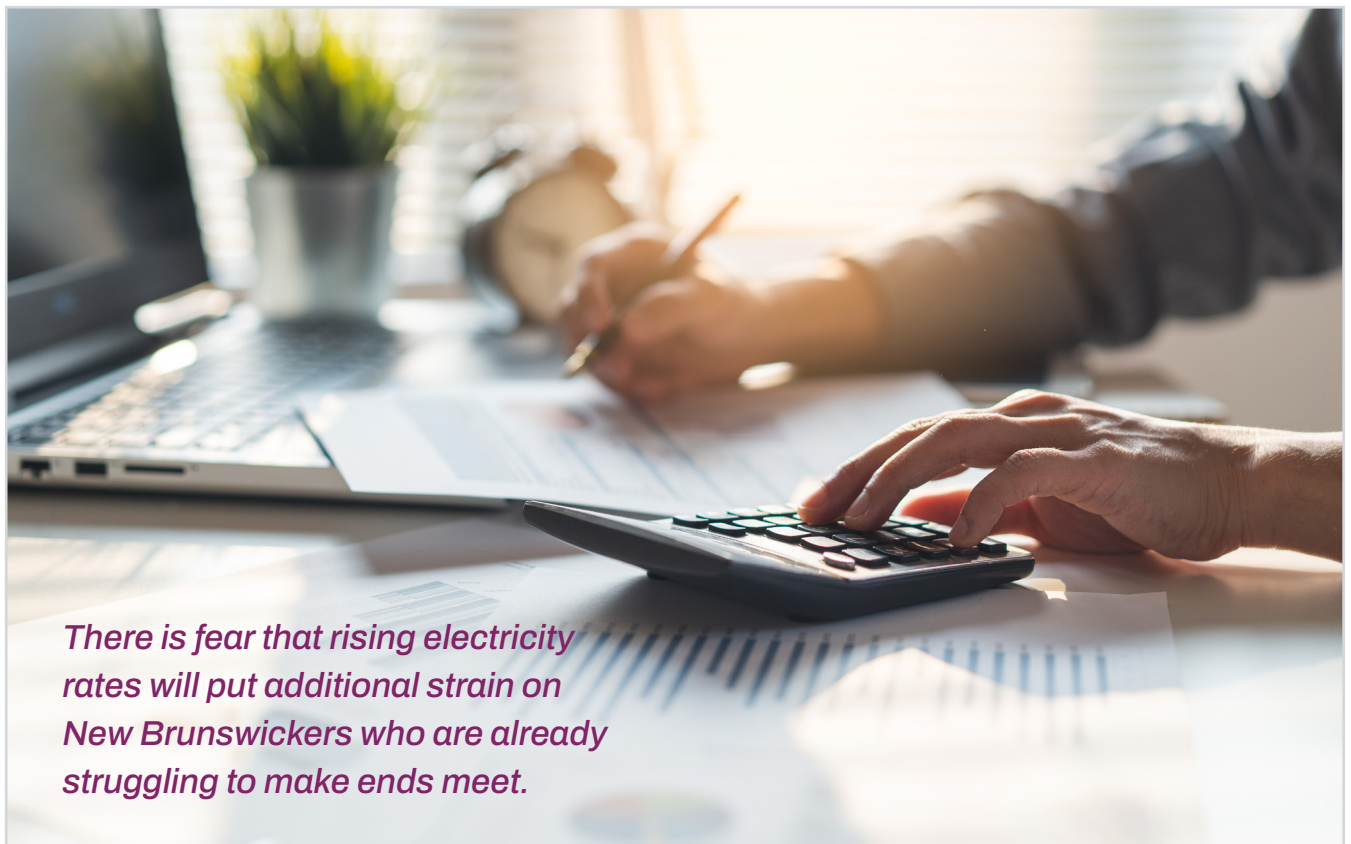
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01 Executive Summary

In the face of climate change, researchers have recognized the need for extensive action to curb carbon emissions. Electricity generation is often a large contributor to a region's carbon footprint. The electricity sector has many opportunities to improve efficiency and reduce emissions from generation to consumption. The transition to a zero-emissions electricity system, however, will require large infrastructure shifts and is likely to increase the cost of electricity for ratepayers in the short term. This is particularly true in regions where the electricity system is currently very dependent on fossil fuel electricity generation.

In New Brunswick, the electricity system will require significant reform in order to meet the goals of the [Clean Electricity Regulations](#), which will require that electricity generation be zero emissions by 2035. New Brunswickers are already at significant risk of experiencing energy poverty—paying more than six per cent of their after-tax income on energy—due to a variety of factors including lower incomes, older (and inefficient) housing, and higher dependence on fossil fuels for home heating. There is fear that rising electricity rates will put additional strain on New Brunswickers who are already struggling to make ends meet.



There is fear that rising electricity rates will put additional strain on New Brunswickers who are already struggling to make ends meet.

The Conservation Council of New Brunswick hosted a **Citizens' Assembly on Energy Affordability** to listen to the perspectives of New Brunswick residents and to gain a better understanding of the types of support that they would like to see implemented throughout the transition to a zero-carbon electricity grid. The Citizens' Assembly participants collectively developed a **Statement on Electricity Affordability**, which highlights the principles and goals that government and utilities should consider in the development of electricity programs and policy. The statement also makes specific policy and program recommendations.

Citizens' identified trust and transparency as being core principles that should guide the provincial government in decision making around the operation of the electricity system and NB Power. The principles and goals demonstrate that New Brunswickers are concerned about a lack of transparency and poor financial management by the Crown utility, NB Power. They indicate

that New Brunswickers value an energy system that is safe, reliable and accessible for all, as well as one that is sustainable both environmentally and financially. Most importantly, the principles and goals identified by the Citizens' Assembly demonstrate a desire for governments to put people first in decision making. There is a strong sense of community among New Brunswickers. There is passion for community-focused and community-led electricity projects and a desire to avoid the privatization of the electricity grid.

The citizens recommend that policy prioritize public engagement, energy literacy, providing transition support for workers, equitable rate design and eliminating government interference in decision making regarding electricity generation and transmission. Program recommendations focused on expanding existing efficiency programs, removing barriers to household-level electricity generation, and supporting the transition to electric vehicles for both household use and public transportation.



02 Introduction

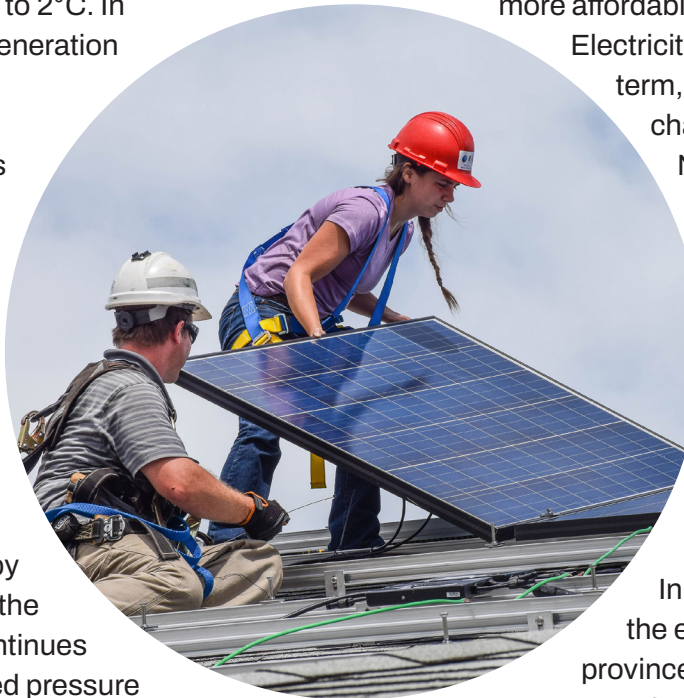
Addressing climate change is a complex task that requires balancing social, economic and environmental needs without putting the planet and people at further risk. Reducing greenhouse gas emissions is essential for addressing climate change and maintaining warming below the [Intergovernmental Panel on Climate Change](#) recommendations of 1.5 to 2°C. In Canada, the electricity generation sector is undergoing a significant infrastructure shift to reduce emissions and produce electricity through renewable sources. The federal government is developing the [Clean Electricity Regulations](#) which will require a net-zero emissions electricity system across Canada by 2035. At the same time, the Canadian carbon tax continues to increase, putting added pressure on households and businesses to reduce reliance on fossil fuels. The shift towards a clean electricity system will be costly, however, particularly in provinces such as New Brunswick that are reliant on coal and other fossil fuels for electricity generation.

The shift is also costly at the household level, as families dependent on fossil fuels for home heating and transportation struggle to make ends meet and are unable to afford the retrofits

necessary to switch to electricity-based heating and transportation. Many households in New Brunswick are at risk of experiencing high energy-cost burdens that force them to make challenging decisions between needs. The transition to a clean electricity system has the potential to address energy inequities and make electricity more affordable for New Brunswickers.

Electricity rates will rise in the short term, however, as infrastructure changes. It is important that New Brunswickers get the support that they need to make their homes more efficient, reduce household dependence on fossil fuels, and ensure that the cost burden of the electricity transition is not borne by ratepayers.

In order to better understand the energy context in the province of New Brunswick, the Conservation Council developed a project on energy affordability. This project seeks to better understand the lived experience of high energy-cost burdens within the province. Furthermore, this project included a Citizens' Assembly, where a select group of New Brunswickers were provided an opportunity to share their experiences and fears, and to develop a set of recommendations for solutions to ensure electricity is affordable for all.



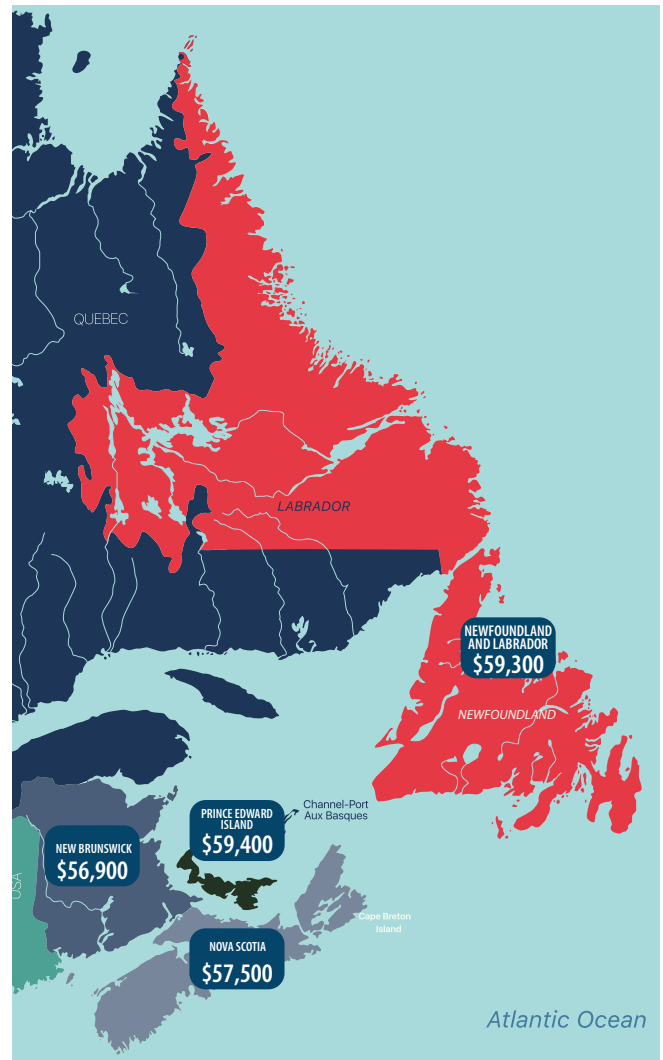
03 Background

Many reports such as those by the [David Suzuki Foundation](#) and [Canadian Urban Sustainability Practitioners \(CUSP\)](#) suggest that Atlantic Canada has high household energy-cost burdens relative to other Canadian provinces. These high cost burdens are a result of lower median incomes combined with higher overall spending on energy related needs. There are a number of factors that contribute to higher spending on energy needs, including electricity rates, transportation costs, household heating systems, and the type and condition of homes in the region.

Income versus spending

[Median after-tax income](#) in Canada was \$66,800 in 2020. The median after tax-income in New Brunswick (\$56,900), Nova Scotia (\$57,500), Prince Edward Island (\$59,400), and Newfoundland and Labrador (\$59,300) all sit well below the national median. In contrast, Ontario and Alberta have a median after-tax income of more than \$70,000. Note that this number includes household incomes of both economic families and of individuals not in an economic family. When considering only individuals not in an economic family (i.e. those who live alone or with others to which they are unrelated), the [median after-tax income](#) is considerably lower: \$34,500 in Canada, \$33,000 in Newfoundland and Labrador, \$30,400 in P.E.I., \$30,900 in Nova Scotia, and \$30,100 in New Brunswick.

At the same time, energy expenditures within Atlantic Canada tend to be higher than in the

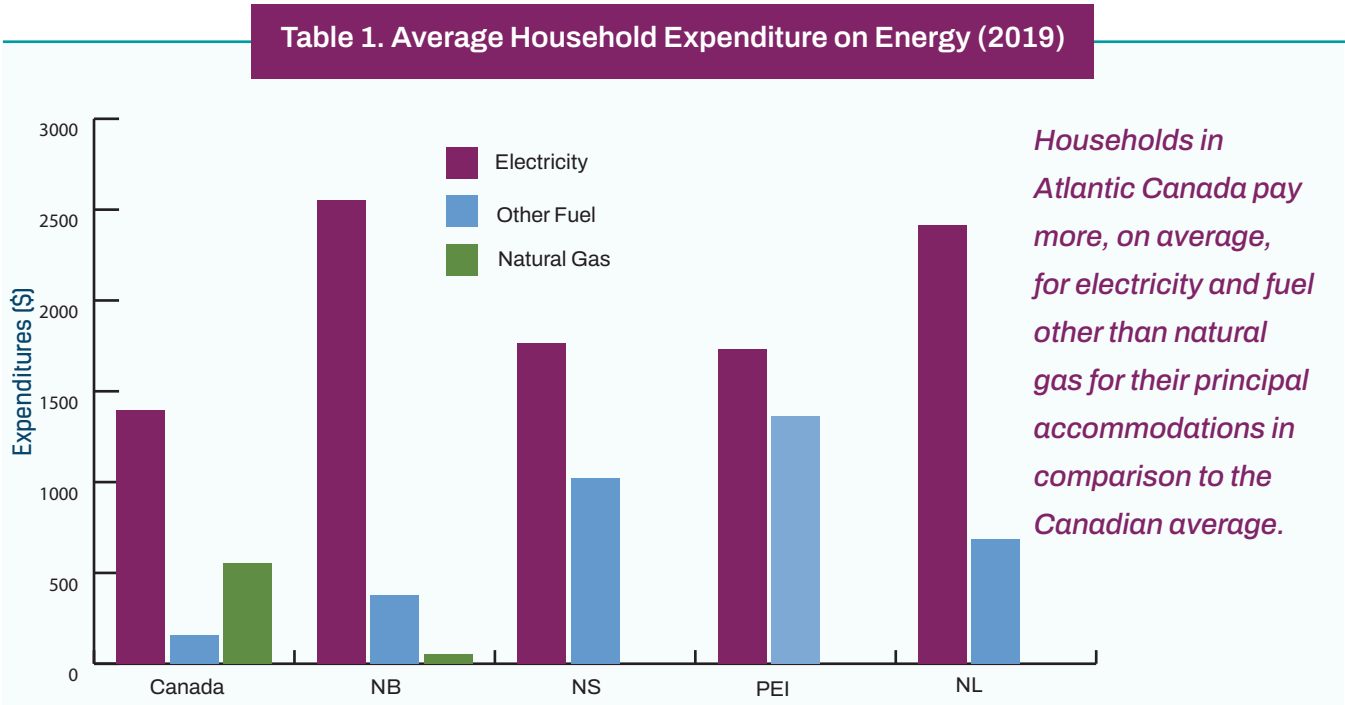
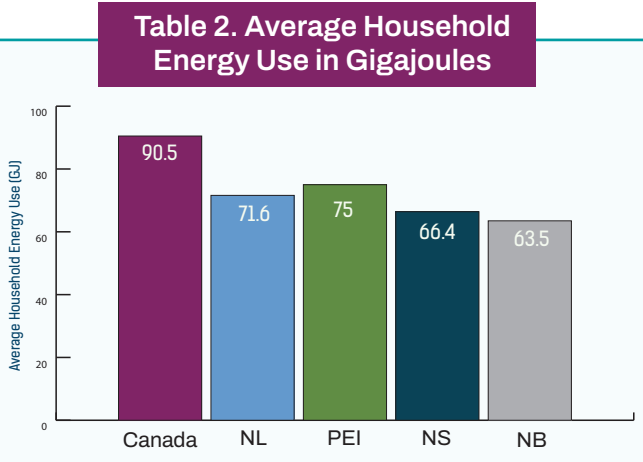


rest of the country. While annual spending on gasoline fuel for vehicles is [comparable between provinces](#) relative to the rest of the country, Atlantic Canadians spend more on [electricity and shelter fuels](#) such as heating oil. This additional spending is related to primary heating sources and other housing characteristics.

Household spending data from 2019 indicates that households in Atlantic Canada pay more, on average, for electricity and fuel other than natural gas for their principal accommodations in comparison to the Canadian average. Table 1 depicts this data as the average household expenditure in dollars on energy for a principal residence. On average, a Canadian household will spend \$1,394 on electricity for the year. In the Atlantic Region, this expenditure is considerably higher, reaching more than \$2,400 in both New Brunswick and Newfoundland and Labrador. Nova Scotia and Prince Edward Island spend more on other fuels, which would include heating oil and wood.

Household energy consumption data indicates that households in Atlantic Canada generally use more gigajoules of electricity than the Canadian average in all income brackets, so higher spending on electricity would be expected. When combining all energy types across all income brackets, however, [data](#) shows that

Newfoundland and Labrador (71.6 gigajoules per household), Prince Edward Island (75 gigajoules per household), Nova Scotia (66.4 gigajoules per household), and New Brunswick (63.5 gigajoules per household) consume significantly lower amounts of energy overall than the Canadian average of 90.5 gigajoules per household. Table 2 depicts average household energy use in gigajoules.



Housing characteristics

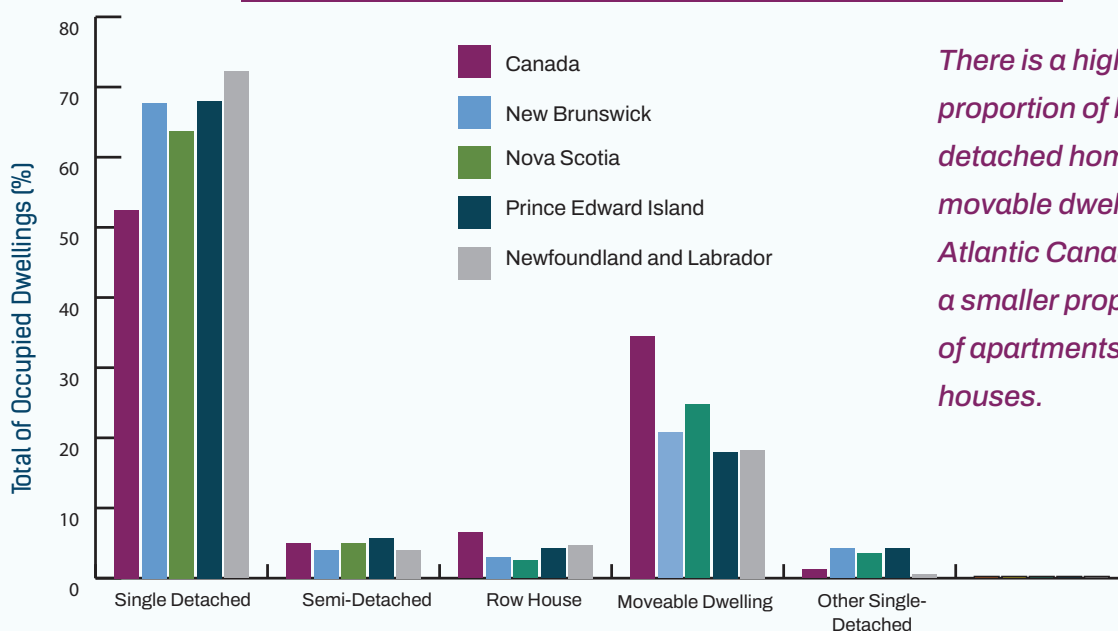
In Canada, there are nearly [15,000,000](#) private dwellings that are typically occupied year-round. Of these, 52.5 per cent are single-detached houses. 34.5 per cent are apartments, and 6.5 per cent are row houses. The remaining seven per cent is made up of semi-detached houses, other single-attached houses, and movable dwellings including mobile homes, houseboats, recreational vehicles and railway cars.

Table 3 depicts types of private dwellings as a percentage of the total number of occupied private dwellings for each of the Atlantic provinces, as well as for Canada as a whole. The table demonstrates there is a higher proportion of both single-detached homes and movable dwellings in Atlantic Canada, and a smaller proportion of apartments and row houses. The Atlantic provinces are in line with the Canadian average for the proportion of semi-detached homes and other single-attached dwellings. This data is important because [reports](#) suggest that those living in single-detached homes, particularly older houses and those that are in need of repairs, are more likely to experience high energy costs.

In Canada, approximately 7.4 per cent of dwellings require [major repairs](#). This number is higher in most of the Atlantic provinces. Nova Scotia (9.5 per cent) and New Brunswick (9.3 per cent) are highest, followed by Prince Edward Island (8.7 per cent). Newfoundland and Labrador is equal to the Canadian average (7.4 per cent) of housing in need of major repairs. This could be explained in part by the age of the housing stock in the Atlantic region. Canadian Housing Statistics [Data](#) shows that around 66 per cent of residential housing stock surveyed in Nova Scotia was identified to have been built before the year 2000. That number is 64 per cent in New Brunswick, and 62 per cent in Newfoundland’s St. John’s census metropolitan area. About 17 per cent of residential buildings surveyed in Nova Scotia were built before 1960, 21 per cent in New Brunswick, and 18 per cent in the St. John’s census metropolitan area. This data can be visualized using [CUSP’s Energy Poverty and Equity Explorer](#) tool.

Those living in rural areas are likely to spend more on energy needs. A large proportion of the population in Atlantic Canada lives in rural areas. Less than 20 per cent of Canadians

Table 3. Type of Dwelling as Percent of Total Occupied Private Dwellings in Atlantic Canada



There is a higher proportion of both single-detached homes and movable dwellings in Atlantic Canada, and a smaller proportion of apartments and row houses.

live in [rural areas](#), but more than 40 per cent of New Brunswickers, Nova Scotians, and Newfoundlanders do. More than 50 per cent of P.E.I. residents have rural households. Housing characteristics, such as type, age, and state of repair are related to rural or urban location. Therefore, those who live in rural areas, in a single-detached home, built before 1960, and in need of major repairs are at a very high risk of experiencing energy poverty.

Household heating

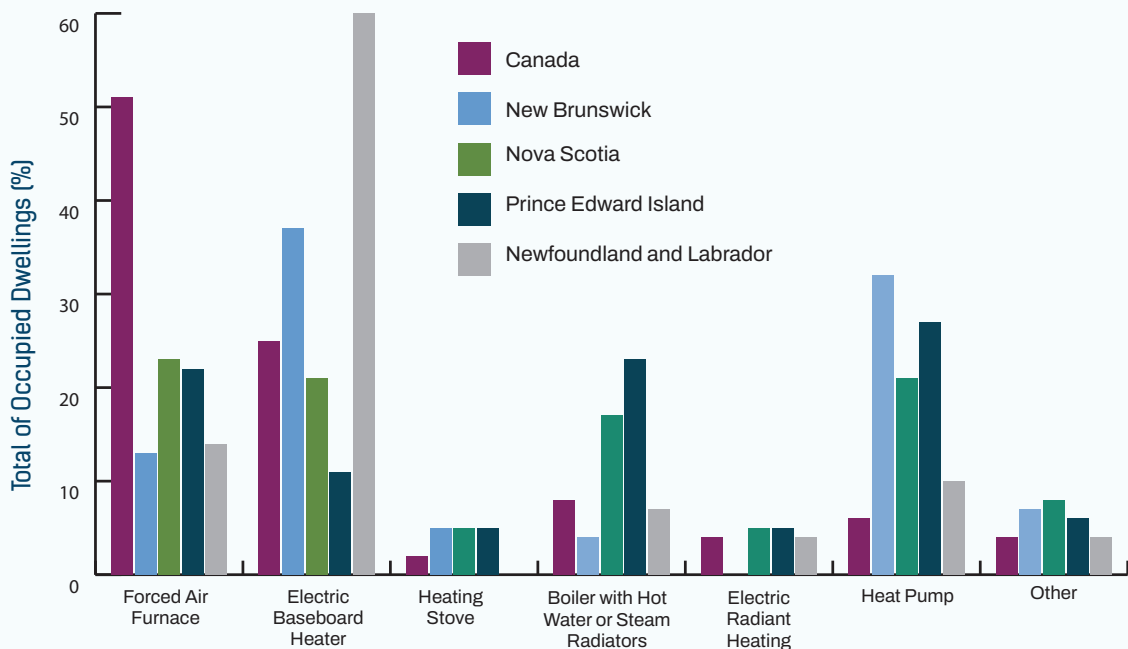
[Heating systems data](#) from 2021 indicates that 51 per cent of Canadian homes used a forced air furnace as the primary heating system. In the Atlantic provinces, the percentage of homes with forced air furnaces is much lower: 14 per cent in Newfoundland and Labrador, 22 per cent in P.E.I., 23 per cent in Nova Scotia, and 13 per cent in New Brunswick. Newfoundland and Labrador and New Brunswick also use more electric baseboard heaters, at 60 per cent and 37 per cent, respectively, in comparison to Canada's 25 per cent. Nova Scotia and Prince Edward Island

use more boilers with hot water or steam radiators as the primary source of household heating, at 17 per cent and 23 per cent, respectively, in comparison to Canada's eight per cent. The Atlantic provinces tend to use more heat pumps (10 per cent in Newfoundland and Labrador, 21 per cent in Nova Scotia, 27 per cent in P.E.I., and 32 per cent in New Brunswick) in comparison to Canada (six per cent).

The [New Brunswick Health Council](#) reports that in 2017, 16 per cent of New Brunswickers relied on wood or wood pellets for household heating, 55 per cent used electricity, and nine per cent were dependent on heating oil. It is important to note that in recent years, heat pump programs have been implemented throughout the Atlantic provinces to assist households in reducing their dependence on heating oil. These programs are resulting in a shift towards electricity use for home heating throughout the region.

Table 4 depicts the percentage of primary heating systems by source used in the Atlantic provinces based on Statistics Canada [heating systems data](#). Note that some data is unavailable.

Table 4. Primary Heating Systems in Atlantic Canada



Electricity generation

Electricity is generated from different sources in Canada, including several fossil fuels and several renewable sources. Fossil fuels used to generate electricity include coal and coke, natural gas, and petroleum (oil). **Renewable** electricity generation includes solar, wind, hydro/tidal, and biomass.

Electricity generation dynamics are unique in each of the Atlantic provinces, but can be compared to the electricity generation dynamics of Canada as a whole. Table 5 depicts electricity generation by source.

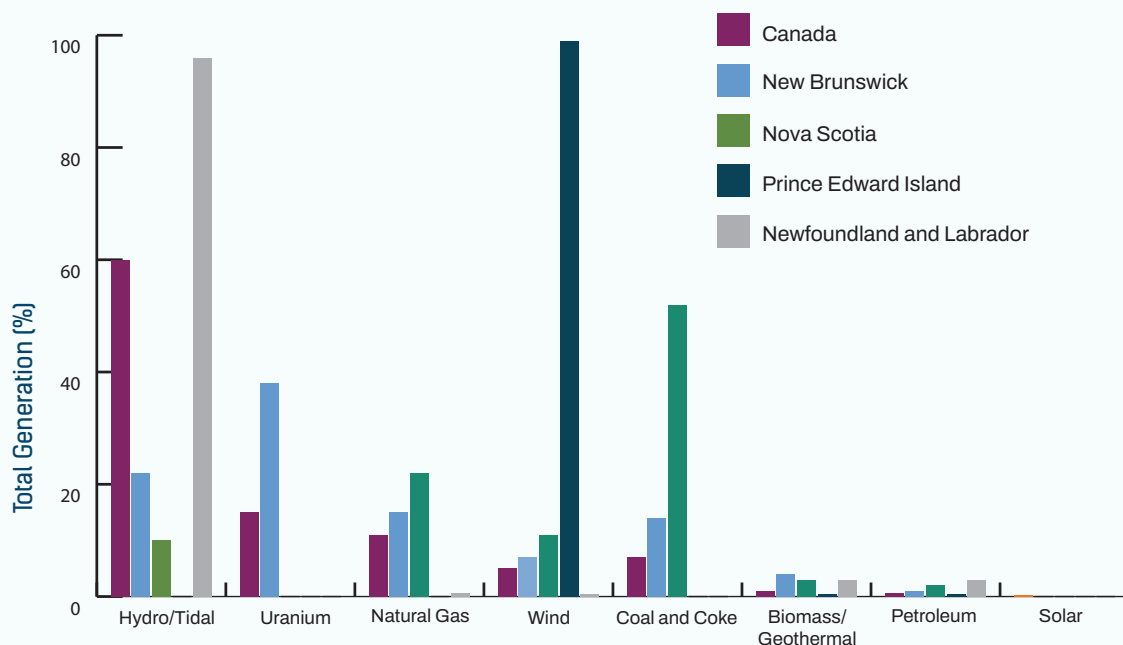
Electricity in **Canada** as a whole is generated in large part through hydro. Sixty per cent of Canada’s electricity is generated using hydro, 15 per cent through nuclear, and 11 per cent through natural gas. Canada has 19 operating nuclear power plants, 18 of which are located in Ontario. The final operating nuclear power plant is located in New Brunswick, making N.B. an outlier amongst the Atlantic provinces.

New Brunswick relies on nuclear and hydro to produce the bulk of electricity for the province. As of 2019, 38 per cent of electricity in the province is generated through nuclear power, 22 per cent through hydro, 15 per cent through natural gas, and 14 per cent coal and coke. The remaining 11 per cent is generated through a combination of petroleum, wind, biomass and geothermal.

The overwhelming majority of electricity—96 per cent—in **Newfoundland and Labrador** is generated through hydro. Petroleum generates three per cent and the remaining one per cent is a combination of natural gas and wind energy.

Nova Scotia is much more dependent on coal electricity generation. In this province, 52 per cent of electricity is generated through coal and coke, 22 per cent through natural gas, and 11 per cent through wind. Ten per cent is generated through a combination of hydro, wave, and tidal generation. The remaining five per cent is generated through a combination of petroleum, biomass and geothermal.

Table 5. Electricity Generation by Source in Atlantic Canada





Prince Edward Island is also unique in its electricity production. [P.E.I.](#) produces only 0.65 terawatt-hours of electricity in total, 99 per cent of which is generated through wind energy. The remaining one per cent is generated through a combination of petroleum, biomass, and geothermal energy.

Overall, Nova Scotia and New Brunswick rely more heavily on coal and natural gas for their electricity generation than the other Atlantic provinces. The dependency on coal has recently been in decline, due to the federal government's regulations implemented in 2018 requiring that coal-fired electricity generation be [phased out](#) across the nation by 2030. To accomplish this, New Brunswick and Nova Scotia will need to continue to modify and improve their energy grids to increase non-emitting electricity generation while ensuring reliability and affordability. The Pembina Institute conducted a study that demonstrates the most affordable and reliable path forward for Atlantic Canada involves [Clean Energy Portfolios](#), a mix of renewable and clean energy resources and technologies.

The costs of building and operating electricity generating stations vary depending on the generation source and the way that energy is transported (transmission), which can impact the rates that consumers pay to use the electricity. Many reports, including those by the [International](#)

[Monetary Fund](#), [Our World in Data](#), and the [International Renewable Energy Agency](#) have shown that the cost of wind- and solar-generated electricity generation technologies and [battery-energy storage technology](#) has continued to fall, even as the capacity of this technology improves. These renewable energy sources would be smart additions to the New Brunswick and Nova Scotia grids in the transition to net-zero electricity generation.

The combination of lower median after-tax income and higher expenditures on energy-related needs due to a variety of factors leads to higher average spending on energy in Atlantic provinces than the Canadian average. Many households in New Brunswick and the other Atlantic provinces are vulnerable to increases in energy prices, forcing them to make challenging tradeoff decisions between needs. There is opportunity within each of the Atlantic provinces to improve the electricity grid as Canada moves toward a zero-carbon energy system. These improvements must not focus only on implementing renewable technologies, but also improving energy efficiency so that Atlantic residents can use less energy for their homes and transportation. At the same time, there is an opportunity to ensure that the zero-carbon energy system improves electricity reliability, security, access, and affordability for Atlantic residents.

04 Purpose

The data and statistics indicate that New Brunswickers are at a high risk of experiencing high energy-cost burdens. The Conservation Council recognizes that the transition to a zero-carbon electricity grid may increase electricity bills. While the transition is imperative for climate action, it is equally imperative that New Brunswickers receive the support that they need to reduce their household consumption and energy costs such that even as electricity rates increase, overall household spending on energy can decrease. The Conservation Council developed the *Citizens' Assembly on Energy Affordability* to gain understanding of the lived experience of residents experiencing high energy-cost burdens, and to give these residents the opportunity to identify the policy and program solutions that would have the greatest positive impact on their household.

05 Methods

The Conservation Council hosted a Citizens' Assembly to learn about the concerns of New Brunswickers and to provide them with an opportunity to share their thoughts on the policy and program solutions that would have the greatest positive impact on their own household. The Citizens' Assembly process includes a preliminary survey, a pre-event interview, participation in the Citizens' Assembly event, and a post-event interview. Each of these steps is detailed in this section.

Preliminary Survey

The Conservation Council recruited participants for the Citizens' Assembly through a combination of adverts on social media, our website, and calls for participation through email lists. These calls for participation required interested New Brunswickers to complete a preliminary survey consisting of 15 questions. The Conservation Council used the survey responses to ensure the Citizens' Assembly hosted a diverse group representative of the province. A protocol for selection that outlines the criteria by which applicants would be deemed eligible or ineligible for participation in the interview and Citizens' Assembly processes was developed.

The following protocols were used to determine the suitability of the participant.

Excluded if:

- The individual does not have access to reliable internet.
- The individual does not have access to a computer.
- The individual has never used the zoom platform before.
- The individual works for the government or a local power utility.

Prioritize the participation of individuals who meet the following criteria:

- Responsible for the payment of their energy bill
- Annual household income is below \$75,000.
- More than 3 per cent of monthly income is dedicated to energy costs.
- Uses an alternative mode of energy for household heating (i.e. oil and wood)

Additional consideration when choosing desirable participants was to look for a cross section of people from different demographics, life experiences and community locations.

A total of 68 participants showed interest in participating in the Assembly. Out of these 68 individuals only 18 met the selection protocol.

Pre-event interview

The 18 individuals who met the selection protocol for participation were invited to attend a pre-event interview. The interviews completed the screening of participants to ensure that the Citizens' Assembly had a group of individuals representative of New Brunswick. Interviews were semi-structured. While interviewers ensured that all the required questions were asked, the structure of the interviews was fairly flexible. Participants could choose to leave at any time and could refuse to answer any of the questions posed. Participants were given plenty of opportunity to answer questions as well as to ask their own.

The interview asked the following questions:

- 1. What made you interested in participating?*
- 2. Have you used an energy efficiency incentive program? Do you consider them accessible? Why?*
- 3. Based on your survey results, you indicate that you spend X per cent of your monthly income on energy, tell me what that is like? Does this create hardship for you?*
- 4. Do you have any hope or plans to change your situation in regard to the cost of energy?*
- 5. Do you trust that the province has your best interests in mind when they establish energy policies and programs?*
- 6. Do you trust that your utility / energy provider has your best interests in mind?*

7. NB Power has applied for a 8.9 per cent rate increase, amounting to about an additional \$200 per year for their customers. What kind of impact would this rate increase have on you and your household?

8. When you hear the term 'energy poverty,' what do you think about, or how do you feel?

9. Do you have any energy stories that you would like to share?

Once participants had completed the interview and it was confirmed that they met the selection criteria, they were invited to participate in the Citizens' Assembly event. Several emails went out to participants prior to the event to provide the meeting details and background resources for participants to review prior to attending the Assembly. Participants were asked to sign a release form where they could indicate their consent to be quoted and/or filmed and featured in our reports or other content.

Citizens' Assembly event

The Citizens' Assembly was held over the course of eight hours on the digital platform Zoom. The event was divided across two days, with two hours in the evening of the first day, and the remaining six hours the following day (including breaks). The first evening focused on introductions and providing some background information for participants through expert presentations. A guest speaker from Efficiency Canada attended the evening session to present on energy efficiency and energy poverty in Canada.

The full day was focused on discussion of citizens' experiences and the solutions that they

feel would be most beneficial for their household. While facilitated by Conservation Council staff, the majority of the event was driven by participants. The full day event began with focus groups in breakout rooms. One breakout room focused on electricity and efficiency policies and the other on programs. Each breakout room had a set of questions to consider and work through.

GROUP ONE - Programs

- 1. What do you want decision makers to know about your experiences with energy affordability and reliability? What is your lived experience?*
- 2. What do you feel is the most important efficiency upgrade needed in your home right now?*
- 3. What are your thoughts about the existing efficiency programs in the province? Do you feel that they are effective? How would you like to see these programs be changed or updated to be more accessible, more effective, or expand their reach?*
- 4. Should programs focus on improving efficiency, transitioning away from fossil fuels, or directly subsidizing energy bills? Should there be a combination of these options?*
- 5. There are a number of complexities when it comes to improving energy efficiency and lowering energy costs for renters. What programs and/or support do you think would be most beneficial for renters who are responsible for paying for their energy?*

- 6. What kinds of programs would help to lower your transportation costs? Is there public transportation available to you? If you need to use a vehicle, what kinds of programs would allow you to reduce your consumption of fossil fuels for transportation?*

GROUP TWO- Policy and Regulations

- 1. What do you want policy makers to know about your experiences with energy affordability and reliability? What is your lived experience?*
- 2. NB Power has applied for a 8.9 per cent rate increase. How would this increase impact you? What kind of added stress would this place on your household? How much are you willing to spend on electricity?*
- 3. Based on the conversations that we had with you in your interviews, most of you indicated that you do not trust that the government has your best interest in mind when implementing policies related to energy. What would the government need to do to earn your trust in managing the energy portfolio?*
- 4. The Clean Electricity Regulations will require the electricity grid to have net-zero electricity generation by 2035. This is in addition to the requirements to phase out coal-fired electricity generation by 2030. In recognition that this transition to a net-zero grid will be mandated, what are your fears? What forms of electricity generation do you feel should be used? Who should pay for the infrastructure required to make this transition?*

5. *One of the proposed solutions to facilitate the phase out of coal-fired electricity generation, improve electricity reliability, and lower energy costs is the development of an Atlantic Regional Transmission Loop, otherwise known as the Atlantic Loop. This loop would allow the Atlantic provinces to import more hydroelectric power from Quebec, and may also facilitate Quebec increasing sales to the United States. How do you feel about this proposed solution? Would you feel more comfortable with in-province electricity generation, or importing electricity?*

At the conclusion of the breakout rooms, the assembly reconvened to discuss the outcomes of the focus groups and to collaboratively develop a **Statement on Electricity Affordability**. The statement was developed and edited in an online document in real-time by citizens. The assembly identified principles and goals that decision makers should consider when making decisions about the energy system, as well as some specific policy and program recommendations.

Post-event survey

Participants were asked to complete a very short survey at the conclusion of the Citizens' Assembly event. The survey asked the following questions:

1. *Did you enjoy participating in the Citizens' Assembly process? (Yes, Somewhat, No)*
2. *Do you feel that you have learned something from participating in the Citizens' Assembly? (Yes, Somewhat, No)*

3. *Do you feel that your voice and concerns about energy affordability have been heard and recognized? (Yes, Somewhat, No)*

4. *Do you have any feedback for the Conservation Council about the Citizens' Assembly? Any final thoughts that you would like to share?*

This short survey was used to evaluate the effectiveness of the Citizens' Assembly and to provide participants with the opportunity to share feedback for improving the process for future events.

06 Results

Pre-event interview

The interview process provided some valuable insight into the lived experiences of New Brunswickers as it relates to energy use and affordability. The results for each of the nine interview questions are below.

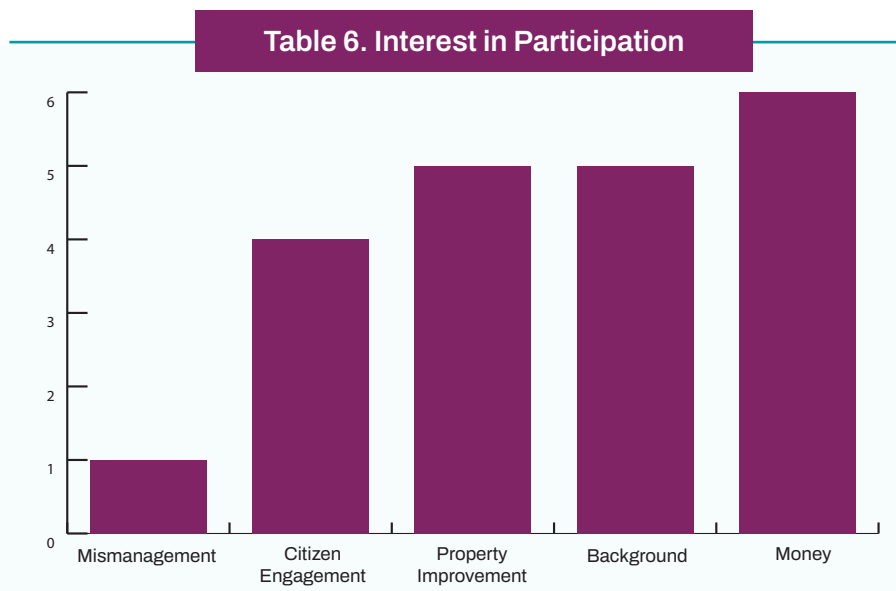
Question 1: What made you interested in participating?

Answers to this question were divided into five distinct themes:

- **Money:** participants wanted to learn how to lower their household electricity bill.
- **Background:** participants have interest in this topic because of their background.
- **Mismanagement:** participants are concerned with the management of NB Power and the accessibility and reliability of the grid.
- **Citizen engagement:** participants wanted to provide their input as New Brunswick citizens.
- **Property improvement:** participants wanted to learn different ways to improve their property and learn about N.B. efficiency programs.

Table 6 depicts participant interest as divided into the five themes.

Many interviewees indicated that they feared the impact that rising costs may have on their household and sought household-level solutions that may help to lower their energy costs. Similarly, there was a general lack of energy literacy which interviewees were hoping to overcome. In general, participants were interested in learning more, making changes to their own energy situations, and working with the Conservation Council to ensure that their concerns are heard by decision makers.



Participants were interested in learning more, making changes to their own energy situations, and working with the Conservation Council to ensure that their concerns are heard by decision makers.

Question 2: Have you used an energy efficiency incentive program? Do you consider them accessible? Why?

Of the 15 interview participants, more than half indicated that they have used a home energy efficiency improvement program. Of the respondents that had not used an efficiency program, three individuals found the application process too difficult and not accessible and one individual was not aware of the program for which they may be eligible as a renter.

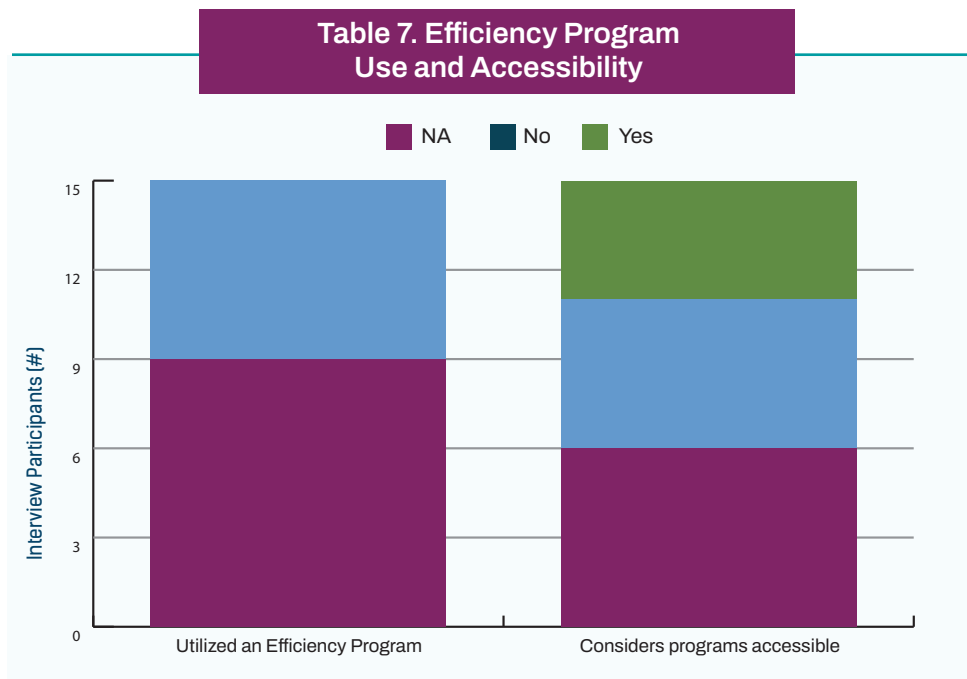
The remaining participants who had not used an efficiency improvement program either already owned an efficient home, or had chosen not to participate. The majority of respondents indicated that they felt that energy efficiency improvement programs in the province are accessible. Only two interviewees indicated that they felt the programs were inaccessible. Another participant whose home underwent efficiency upgrades was unable to comment on program accessibility as the contractor responsible for the construction took

on the responsibility of applying for and using the program(s).

Question 3: Based on your survey results, you indicate that you spend 3- 12 per cent of your monthly income on energy. Tell me what that is like? Does this create hardship for you?

This question sought to provide some insight into the lived experiences of New Brunswickers struggling to afford their energy bills. Every story is unique. Two thirds of the interviewees indicated that their energy bills cause hardship for them and their families. The remaining third felt that their energy costs were not currently causing much hardship, but as costs rise the risk of needing to make tradeoff decisions is increasing.

Facilitators learned that there is considerable fear amongst participants about rising energy costs, and for some, a feeling of hopelessness because they are unable to reduce their consumption any further without assistance.



Quotes from participants:

“I try to minimize energy consumption in my home, because if I become careless with it, it will take the whole of my salary.”

“Currently I am living in a shared accommodation, but if I were to be living alone like I am planning to this summer, the energy bill is very high for me to pay alone.”

Question 4: Do you have any hope or plans to change your situation in regard to the cost of energy?

The intent of this question was to identify whether interviewees were interested in undertaking energy efficiency upgrades/retrofits, and/or altering their behaviour to reduce energy consumption within their home. Most indicated that they were already taking as much action as they can at the individual level to reduce consumption. Over half of the participants (53 per cent) indicated that they were interested in improving the efficiency of their home if it were affordable for them to do so. The remaining 47 per cent indicated that they have made their homes as efficient as they can for the time being. About

a quarter of interviewees (26 per cent) stated that they would be interested in installing solar panels for their homes, but that right now the upfront costs and the complexity of buy-back programs are too inhibitive.

Question 5: Do you trust that the province has your best interests in mind when they establish energy policies and programs?

Table 8 depicts the interviewees’ trust in provincial government. The majority of interviewees (seven) expressed distrust in the provincial government on the energy portfolio, stating that they don’t believe the Government of New Brunswick had their best interests in mind when developing energy policies and programs. Nearly as many (six) were uncertain whether the government had their best interests in mind. Only two interviewees felt that the provincial government had their best interests in mind when developing policies and programs.

Question 6: Do you trust that your utility / energy provider has your best interests in mind?

Table 9 depicts interviewees’ trust in their utility. A slight majority of respondents indicated that they

Table 8. Trust in the Provincial Government

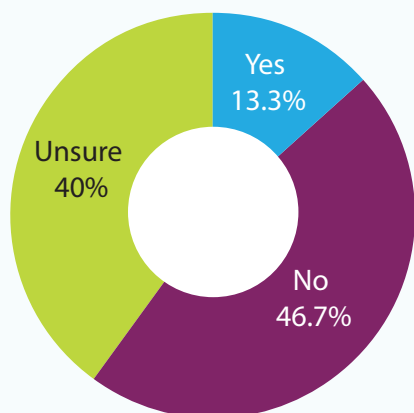
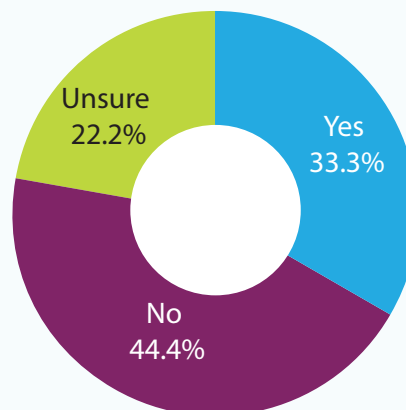


Table 9. Trust in Utility



do not trust that their utility has their best interests in mind. This question received notably different responses from interviewees depending on their utility. Most respondents who do not trust their utility or are unsure about their utility were clients of NB Power. Individuals who are connected to Saint John Power were much more likely to trust their utility.

Questions 5 and 6 revealed that many interview participants were unsure of the responsibilities of the government versus their utility in the development of policy and programs. Similarly, many felt that the decisions made by utilities are too often influenced by politics and government interference, rather than the needs of clients. Some comments from respondents include:

“Industry has too much influence over the cost of energy in New Brunswick.”

“NB Power employees make too much money. NB Power is the most (financially) inefficient business.”

“NB Power is a Crown corporation. It should have ratepayers’ best interests in mind, but it doesn’t. It is only about profit.”

Question 7: NB Power has applied for a 8.9 per cent rate increase, amounting to about an additional \$200 per year for their customers. What kind of impact would this rate increase have on you and your household?

The majority of interview participants indicated that the 8.9 per cent rate increase proposal from NB Power would be challenging for their household to manage. Several indicated that all costs for living are increasing with inflation. Food, rent, and energy costs are increasing at a rate

that outpaces income, making it very challenging to keep up with even basic needs. Others indicated that even though the burden might be a bit challenging, it is one that they would be willing to bear as long as NB Power uses the increased revenue to invest in the transition to renewable electricity generation.

Quotes from participants:

“[The rate increase] would be very overwhelming. My employer would not be able to increase my income to reflect the increase in energy costs.”

“We aren’t suffering compared to other people. We have consistent income, and we are privileged. And even so, this is going to hurt.”

“Difficult choice... I wouldn’t mind [the rate increase] if it is going to be invested in renewable energy. But if it is going to continue the current energy mix, that is a problem. But I know we have to spend to make the transition happen.”

Question 8: When you hear the term ‘energy poverty,’ what do you think about, or how do you feel?

All interview participants indicated that the term ‘energy poverty’ forces behavioural changes due to a lack of means. Some participants referenced a cycle of poverty. Behavioural changes may range from turning down the heat and putting on extra socks and sweaters to save some money on energy bills to being forced to choose between paying the energy bill or buying groceries. Many respondents indicated that energy poverty has a bigger impact in the winter, when trying to keep the home warm.

Quotes from participants:

“Energy poverty is not a word I had ever heard before, but I immediately know what it means because this month a good chunk of my income will be going to my electricity bill. We eat differently when it is really cold in the winter. We eat more pasta, potatoes and rice, because the power bill is so high.”

“My wife and I are both teachers and we make a reasonable amount of money. Given everything that is going on with the economy, my partner and I are strapped, even while making a living wage. We are responsible, not big spenders, we budget and cook food that is budget-friendly and we make it work economically. But if we are worried about this, then this (energy poverty) is a problem economically.”

Question 9: Do you have any energy stories you would like to share?

This question allowed those who were interested in sharing more of their personal experiences to do so. This question demonstrated all the unique perspectives that the participants could bring to the Citizens’ Assembly. The unique perspectives of retired energy auditors, current teachers, single mothers, labourers, renters and homeowners provided insight into the lived experiences of New Brunswickers from all walks of life. Many took the opportunity to highlight their passions or fears while answering this question, allowing facilitators to create an agenda for the Citizens’ Assembly that all participants would find engaging.

Citizens’ Assembly statement

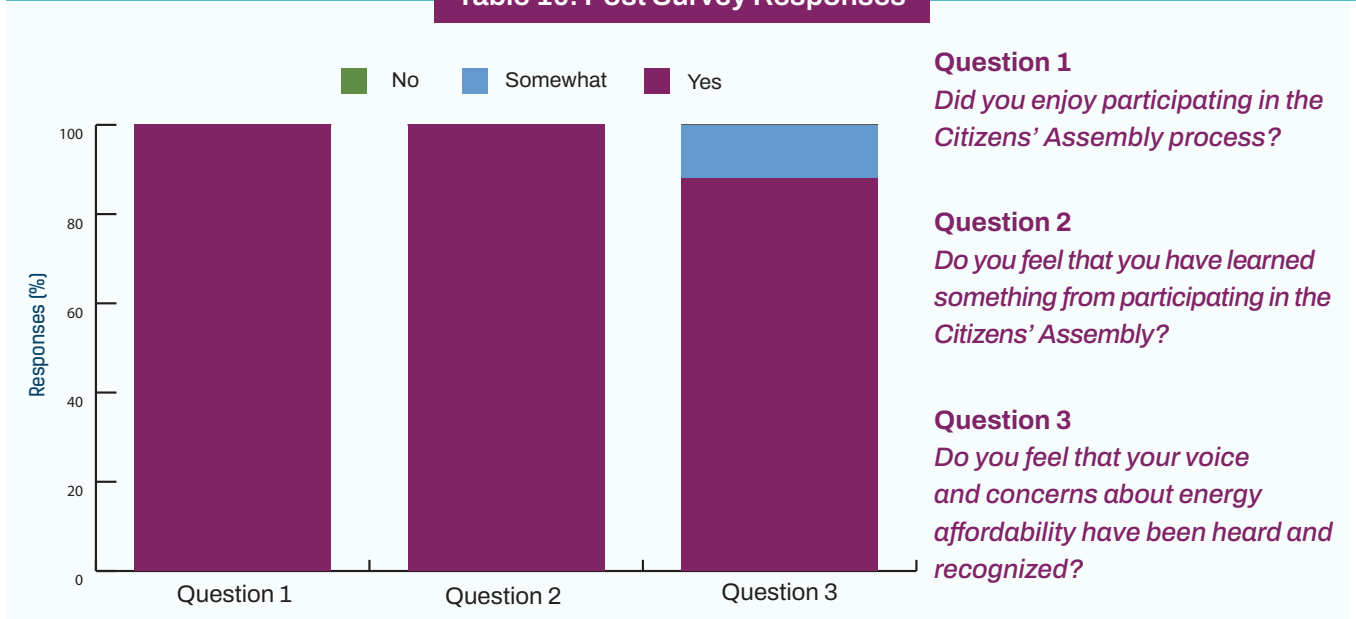
The final result of the Citizens’ Assembly is a signed consensus statement on electricity affordability that the participants developed collaboratively. This statement highlights the principles and goals that should guide decision making processes related to the electricity grid, including trust, transparency and accountability, and ensuring accessible and affordable electricity for all New Brunswickers. In addition, the citizens developed some specific policy and program recommendations. The **Statement on Electricity Affordability** is included in the appendix. The recommendations are considered further in the Discussion section.

Post-Event survey

The post-event survey received a 100 per cent (9 of 9) response rate from event participants. Responses to Questions 1 through 3 are depicted in Table 10.

- 1) Did you enjoy participating in the Citizens’ Assembly process? (Yes, Somewhat, No)**
- 2) Do you feel that you have learned something from participating in the Citizens’ Assembly? (Yes, Somewhat, No)**
- 3) Do you feel that your voice and concerns about energy affordability have been heard and recognized? (Yes, Somewhat, No)**
- 4) Do you have any feedback for the Conservation Council about the Citizens’ Assembly? Any final thoughts that you would like to share?**

Table 10. Post Survey Responses



Question 1

Did you enjoy participating in the Citizens' Assembly process?

Question 2

Do you feel that you have learned something from participating in the Citizens' Assembly?

Question 3

Do you feel that your voice and concerns about energy affordability have been heard and recognized?

Responses indicate that the assembly was a positive experience for participants. 100 per cent of participants indicated that they enjoyed the event and that they have learned something from participating. Nearly all participants indicated that they feel their voice and concerns regarding energy affordability have been heard and recognized through participating in the event, with only one participant indicating that they feel only somewhat that their concerns have been heard and recognized.

Responses to Question 4 varied, though all comments were positive. Below are some of the responses that participants shared.

"I hope our voices will be heard by decision makers."

"The value of participating in this Citizens' Assembly gave me a voice, a chance to learn, and the ability to hear a variety of perspectives in a respectful and engaging way."

"I really enjoyed the session and hope to be invited in future discussions."

"Thanks for this beautiful experience. I wish it would continue into the possibilities of reducing the cost of energy and electricity in NB."

"I really enjoyed the session and hope to be invited in future discussions."

"Brilliant job and I am inspired by the project you developed!"

These comments demonstrate that the Citizens' Assembly was successful in creating an informative and engaging session for participants to share their concerns about electricity affordability and the transition to a zero-carbon emissions electricity grid. It is now the responsibility of the Conservation Council to ensure that the voices of our Citizens' Assembly participants are heard by decision makers.

07 Discussion

The Citizens' Assembly process provided unique insight into the experiences of New Brunswickers as it relates to high energy-cost burdens. The **Statement on Electricity Affordability** developed by the participants is a strong foundation for action and intervention on energy issues within the province.

The citizens state that affordable electricity is essential to quality of life, health and safety, and is a necessity of modern society. This statement was derived from

their personal experiences. When electricity is either inaccessible or unaffordable, individuals and families may not be able to regulate their home temperature (either heating or cooling), use appliances for cooking or cleaning, and experience emotional and mental burdens that they otherwise would not. For many reasons, electricity is essential for modern society. Many households no longer have landline telephones,



leaving even emergency communications to cell phones which will not function when the battery is not charged. Finding and maintaining employment can be very challenging without consistent access to electricity and the internet. During the COVID-19 pandemic, many workplaces and education institutions moved online for regular work and classes. For those who struggle to access reliable and affordable electricity, accessing the virtual workplace and/or classroom can be frustrating and creates barriers for participation.

The understanding that affordable electricity is so critical to well-being should be reflected in all decisions made by government and utilities about the generation, transmission, and use of electricity within the province. New Brunswickers should be at the heart of the decision-making processes, and policy and program actions should support improved access and affordability of electricity.

Principles and goals

The Citizens' Assembly identified principles and goals that should frame decisions relating to the electricity grid, including the development of policies and programs to support the transition to a clean electricity system.

The principles presented in the citizens' statement include honesty, trust, transparency, accountability, equity, and consideration of the social impacts of policies. The citizens ask that government and utilities operate with the best

interests of New Brunswickers at heart. The statement provides some further details about how government and utilities might demonstrate transparency and accountability. A chief concern of New Brunswickers is the fiscal management of the Crown utility, NB Power, particularly in the wake of the utility's application for an 8.9 per cent rate increase. The citizens suggest that NB Power needs to prove that it is capable of managing its finances and controlling its own costs before asking for a raise in the form of rate increases for customers. One method for improving transparency and accountability may be the implementation and dissemination of key performance indicators and report cards on current state and progress towards financial, technological, and environmental goals.



The goals suggested by citizens should act as guiding objectives for decision makers to ensure that electricity is affordable for all, that the electricity system is reliable, safe, sustainable from an environmental, economic and social perspective, and that it provides opportunity for cooperative models and decentralized options. These goals demonstrate that New Brunswickers

want to be involved in the electricity transition, and that they value community-oriented projects. Putting people at the heart of decision making and including public consultation in all infrastructure development projects would help to improve trust between New Brunswickers and the provincial government and NB Power, as well as providing unique and valuable perspectives that could lead to community-based solutions to challenges such as high cost burdens for low- to moderate-income households.

The importance of trust

New Brunswickers value trust and transparency. A previous study by the Conservation Council titled "[Why do wind energy projects fail?](#)" considers the role of trust in the development of renewable energy projects. The report highlights that communities are much more likely to accept renewable energy projects in their area if they are given a say in the burdens and benefits that their community will experience. Climate action and any large infrastructure transition must also provide citizens with the opportunity to contribute to decision making.

Policy recommendations

The policy actions that the Citizens' Assembly identified as priority areas continue to reflect the desire of New Brunswickers to be involved and engaged in the energy transition.

The citizens ask that the province create a shared electricity vision through public engagement. The province has committed to develop a Clean Electricity Strategy as part of the Climate Action Plan. The development of this strategy should include public engagement and education. The strategy itself should have provisions requiring public engagement through all stages of electricity generation projects.

Other recommendations by citizens that would serve the strategy well include: ensuring that the electricity system remains publicly owned; integrating the system regionally and nationally; ensuring that the electricity system is only as big as it needs to be; and, that it maximizes efficiency from generation to consumption.



The citizens further recommend strengthening institutions like the Energy and Utilities Board and reforming the *Electricity Act* to provide effective public oversight and eliminate government interference. This reflects the principles that are important to citizens: trust, transparency, and accountability. The province must work diligently to ensure evidence-based decision-making processes that consider social and environmental effects are used when evaluating the path forward for the electricity system.

The community-oriented recommendations demonstrate that New Brunswickers wish to work together and be part of the solution to the challenges of both climate change and rising energy costs. Reformed incentives, transition support for workers to train for employment in the new electricity sector, and rate design alterations are all policy asks that seek equitable treatment for New Brunswickers. The province

should explore different rate design options that would ensure equitable and affordable access to electricity for all New Brunswickers, while also incentivising high electricity users to reduce their consumption. Time-of-day use rates are used in other regions throughout Canada and should be considered by the province to evaluate whether this would be an effective and equitable tool to reduce peak loads in New Brunswick.

Program recommendations

The *Citizens' Statement on Electricity Affordability* provides guidance on the programs that New Brunswickers would find most beneficial for reducing household energy consumption and costs while ensuring a transition away from dependence on fossil fuels.

The participants in the Citizens' Assembly had a range of experience with the existing household energy efficiency programs available in the province (for more information about existing programs, see the Conservation Council's [Fact Sheet on Energy Poverty](#)). Some participants had made use of the programs in the past and were very happy with the experience. Others had not used the programs, typically due to either a lack of knowledge of the programs, or, because they did not meet eligibility requirements. Regardless of whether the participants had been able to use these programs in the past or not, they unanimously agreed that the eligibility criteria for the Enhanced Energy Savings Program are too restrictive. This program helps households with efficiency upgrades and retrofits, including insulation, weatherization, new windows and doors, and the installation of electric heat pumps. The *Citizens' Statement on Electricity Affordability* suggests that this program should receive more funding so that more households can be serviced each year, and that the eligibility requirements be expanded to include moderate-

to middle-income households and to households that are dependent on other sources of heating. The enhancement of this program alone could help many New Brunswickers reduce their consumption, reducing demand on the grid and lowering household energy bills.

The citizens also suggest exploring the use of building energy labeling, such as the system used in the United Kingdom which requires all apartments and homes to receive an 'energy performance certificate.' This system, required under the United Kingdom's [building regulations](#), gives buildings an efficiency rating from A (most efficient) to G (least efficient). Homes and apartments must comply with minimum efficiency standards before they can be made available to rent. The system also increases transparency and accountability as the labeling information is available to all through a digital platform.

To support renters, assembly participants recommend programs that target energy efficiency in rentals by giving tenants more power to request efficiency upgrades from landlords while preventing rent increases when upgrades are installed. Participation in programs that assist landlords in improving efficiency should ensure that the cost burden is not placed on renters by requiring landlords to agree to limited or no rent increases over a period of time after the efficiency upgrades have been completed. Similar programs in place in Nova Scotia can be used as a reference point for the development of programs in New Brunswick.

Other program recommendations made by the citizens include improving incentives and rebates for electric vehicles (and expanding these incentives to include micro-electric vehicles) and solar panels for household electricity generation.



These program recommendations indicate that New Brunswickers are willing and interested in doing more to reduce their dependence on fossil fuels and to contribute to the generation of clean electricity within the province. The upfront costs of electric vehicles, the lack of access to efficient charging stations, and the upfront costs of solar panels and their installation are prohibitive for many New Brunswickers who would otherwise be interested in making these transitions. The province should explore enhanced buy-back programs that allow New Brunswickers to sell excess electricity generated from household solar panels back into the grid at competitive prices.

Finally, citizens say the province should explore creative ways to involve the community in both the infrastructure transition and the funding of the transition, such as through electricity bonds, solar farm bonds, or wind farm bonds, which would allow citizens to buy into the transition financially. It is also important that programs reflect the unique needs of rural and urban communities.

08 Future research

This project has revealed the need for further research on the lived experiences of high energy-cost burdens within Atlantic Canada. There is the potential for Atlantic-wide collaboration on energy and electricity affordability projects. Further studies should consider the impacts of specific energy and electricity policies on household energy costs within the province of New Brunswick, and include further analysis on the potential of regional utilities and community-led electricity generation projects. Future research would also benefit from more data on housing characteristics and the differences between urban and rural areas as it relates to housing characteristics and energy use.

09 Conclusion

The *Citizens' Assembly on Energy Affordability* and the resulting *Citizens' Statement on Electricity Affordability* demonstrate the desire of New Brunswickers to be involved in the transition to a zero-carbon electricity grid. At the same time, the Citizens' Assembly process revealed the true challenges that New Brunswickers face when navigating high energy-cost burdens.

New Brunswickers display strong ties to their community and seek transparency and accountability from their government and utilities. Equitable solutions that provide support for low- to moderate-income earners are a priority for New Brunswickers. New Brunswickers need support to make their homes more efficient and reduce household dependence on fossil fuels.

As the infrastructure transition begins, it is crucial that the cost burden of the electricity transition is not borne by ratepayers alone, raising the risk of energy poverty and detrimental impacts on wellbeing. Governments and utilities must take seriously the concerns of New Brunswickers, and work together to improve trust and find community-focused solutions to high energy costs during the transition to a zero-carbon grid. The Citizens' Assembly provides valuable policy and program recommendations that should be considered by decision makers, and should be used as a reference point for further public engagement on electricity affordability and reform.



New Brunswickers want to be involved in the transition to a zero-carbon electricity grid.

10 Appendix

Citizens' Assembly on Energy Affordability Agenda

Friday, Feb. 24, 2023

5 to 5:10 p.m.

Welcome

5:10 to 5:45 p.m.

Introductions

5:45 to 6 p.m.

Presentation One - Abhi from Efficiency Canada

6 to 6:15 p.m.

Presentation Two - Our Work in Context; Moe (CCNB)

6:15 to 6:30 p.m.

Presentation Three - Energy Policies and Programs in New Brunswick; Emma (CCNB)

6:30 to 7 p.m.

Brief for Saturday

Saturday, Feb. 25, 2023

10 to 10:10 a.m.

Welcome Back

10:10 to 10:30 a.m.

Recap from Friday and Instructions

10:30 to 11:30 a.m.

Breakout Rooms

11:30 a.m. to 12 p.m.

Report Back

12 to 12:45 p.m.

Lunch Break

12:45 to 1 p.m.

Recap/Overview of What We've Heard

1 to 2 p.m.

Discussions - Creating a Consensus Statement

2 to 2:15 p.m.

Break

2:15 to 3 p.m.

Discussions - Creating a Consensus Statement (cont.)

3 to 3:30 p.m.

Overview of What We've Heard

3:30 to 4 p.m.

Conclusions and Thanks

STATEMENT

Citizens' Assembly on Electricity Affordability

WHEREAS **affordable electricity** is essential to our quality of life, health and safety, and is a necessity of modern society.



WE BELIEVE the following principles should guide government decision-making about the province's electricity system and the operation of NB Power:

- Demonstrates NB Power is frugal and controls its own costs before asking for a raise through rate increases;
- Shows NB Power is trustworthy because it is honest and transparent;
- Displays accountability by reporting on key performance indicators, issues report cards;
- Creates fair, balanced and equitable outcomes for all ratepayers (e.g., industry pays its fair share, not just households);
- Ensures electricity is accessible to all that need it;
- Operates with citizens' best interests at heart;
- Commits to progressive policy changes and not staying with the status quo; and
- Consider the social effects its policies have on New Brunswickers.



WE BELIEVE the following goals should guide government decision-making about the province's electricity system and the operation of NB Power:

- Affordable for all ratepayers (e.g., low- to moderate-income households);
- Reliable and safe;
- Low-carbon and sustainable from an environmental, social and economic point of view;
- Includes potential for cooperative models (citizen-owned and community-owned projects); and
- Includes decentralized options (e.g., mix of distributed energy sources).



WE BELIEVE the province's electricity strategy
should be based on the following policies:

- Builds a shared electricity vision through public engagement;
- Protects our publicly-owned electricity system;
- Builds an electricity system that is only as big as it needs to be;
- Creates an integrated electricity system (regionally and nationally) for reliability and to support more renewable and non-polluting energy (e.g., wind, solar, geothermal, hydro, biogas);
- Strengthens institutions like the Energy & Utilities Board (e.g., for accountability and transparency);
- Reforms the *Electricity Act* to eliminate government interference and provide public oversight to ensure evidence-based decisions (e.g., technically- and financially-sound decisions that take into account social and environmental effects);
- Reforms incentives (e.g., net metering and taxation of solar, policies);
- Builds a system that maximizes energy efficiency from generation to consumption;
- Provides transition support for workers to train for employment within the new electricity system;
- Pursues rate design that ensures:
 - Base electricity is the cheapest possible rate;
 - Electricity bills are tax-free because it is necessary for modern life;
 - Tiered rates so that the more you use, the more you pay—particularly for industry; and
 - Consideration of time-of-day use rates in response to electrification and to reduce peak loads;
- Strengthens building codes; and
- Ensures an energy literate population, with energy education as a priority.



**WE BELIEVE the following programs should be included
in the province's electricity strategy:**

- Expand the [Enhanced Energy Savings Program](#) eligibility requirements to include moderate to middle income:
 - Expand eligibility for people who are using a different source of heating (e.g., oil);
 - Remove barriers that make participation difficult;
 - Increase funding to service more homes each year;
- Explore the use of building energy labeling (e.g., following a model used in the U.K.);
- Target landlord energy efficiency to:
 - Provide more power to renters to request efficiency upgrades;
 - Prevent rent increases when upgrades are performed;
- Expand EV, Hybrid and EV charger rebates to make them more accessible:
 - Add micro-electric vehicles to the rebate program (e.g., electric bikes, trikes, cargo carriers);
- Transition towards electric vehicles for public and school transportation (buses, trains); and
- Ensure solar panels are affordable for households (e.g., reducing the upfront costs):
 - Establish a competitive buyback program for households to sell excess energy to the grid;
 - Eliminate tax on excess energy generated by home solar panels;
 - Create bulk-buy solar panel programs for communities;
- Explore the potential of electricity bonds to fund the electricity system transition (solar farm bonds or wind farm bonds) to encourage citizens to buy into the transition; and
- Recognize that rural communities have different program needs than urban communities.

B. Bipin Kumar

Fredericton, New Brunswick

Jamie Reschny

Saint John, New Brunswick

M. Cozy

St. Stephen, New Brunswick

RL Murphy

Saint John, New Brunswick

Marc Goguen

Cocagne, New Brunswick

Eric Martin

Moncton, New Brunswick

Jonathan Standing

Saint John, New Brunswick

M. L. B.

Moncton, New Brunswick

Reno Leavelle

Cap Pelé, New Brunswick