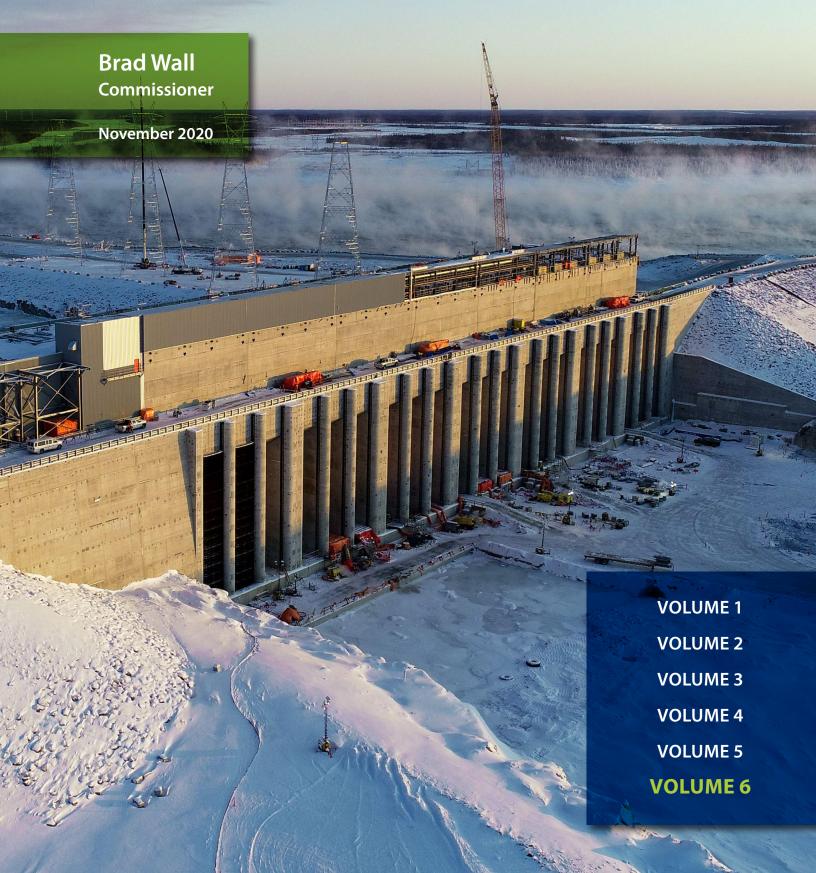


# Bipole III and Keeyask



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### APPENDIX B: WRITTEN SUBMISSION OF CONSUMERS' ASSOCIATION OF CANADA (MANITOBA)

### Index of Written Submissions from Consumers' Association of Canada (Man.)

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## Tab 1



# Consumers' Association of Canada Association des consommateurs du Canada Manitoba

Good afternoon, Mr. Wall, and members of the Commission. On behalf of the Manitoba branch of the Consumers' Association of Canada (CAC Manitoba), I would like to thank you for the opportunity to speak with you this afternoon. We believe that the issues related to the learnings from Keeyask and Bipole III, as well as the dialogue regarding the future financial health of Manitoba Hydro, are fundamentally important to Manitoba consumers. We believe there are real opportunities to learn from the past as well as to engage publicly and constructively for our future. This is why your work is so important!

As Mr. Wall mentioned in his letter, this Commission is already familiar with our participation on issues related to Bipole III and Keeyask from your interview with Byron Williams, and from the public record. This afternoon, I will address four broad areas of concern for our organization and offer some recommendations for section 5(b) of your Terms of Reference. The four areas of concern are:

- The importance of publicly accessible, transparent processes that promote accountability
- The risks of an inordinate focus on Manitoba Hydro's debt to equity ratio at the expense of other means to enhance confidence of the capital markets, while protecting consumers
- The relationship between this inquiry and changes proposed by Bill 44
- An energy strategy for Manitoba

#### The Importance of Public Inquiry and Process

Yes, I do believe there should be more ways for the public to have a say. I mean, with technology nowadays, you can do that. So many ways that they can get creative and find ways to have us aware of these things and have us engaged.

Consumer engagement participant

I think that aspects always need to be brought up....to know that they didn't present any other options...that kind of scares me to know that in the future this could be done with no other alternatives presented in regards to anything that goes forward in terms of Manitoba hydro and with the government.

Consumer engagement participant

As you are aware, CAC Manitoba has been very involved in the regulatory process surrounding Manitoba Hydro and Centra Gas for many years and was also a major contributor to the public proceedings regarding Keeyask and Bipole III. That work has always been guided by credible evidence, the Consumer Rights and Responsibilities (adopted by many consumer organizations globally), and CAC Manitoba's engagement with the consumers of this province.

Our organization paid careful attention to the section of your letter regarding the non-public nature of this inquiry, and we must respectfully agree to disagree on the advisability of this approach. Here are just three of our reasons:

#### 1. Research:

CAC Manitoba is familiar with the Manitoba Evidence Act, and the role of inquiries under Part 5 of that Act. Through our legal team, we have also gained familiarity with the case law and learned literature regarding inquiries, whether under

Manitoba's legislation or at the federal level. The key messages from these sources is that inquiries should be publicly accessible, impartial, and procedurally fair. Without these three criteria, the public confidence in an inquiry is in jeopardy.

Publicly accessible means that information about the process, the content of interviews, and all facts, opinions, positions shared with the Commission are recorded, and made available to the public. It also means that the public can participate, either by making presentations, sending letters, participating in surveys, an online portal with a reasonable length of time for Manitobans to consider the information and respond.

We understand the desire of some participants (organizations, communities, etc) for confidentiality, but if a record of the process is not made publicly accessible, there is absolutely no way for Manitobans to judge the other two requirements for a credible process, impartiality and procedural fairness.

#### 2. Consumer Rights and Responsibilities:

The first four of the Consumer Rights were coined by former US President John F. Kennedy in 1962.

- the right to safety.
- the right to be informed.
- the right to choose (regulatory and other public processes are often thought of as a proxy for the choice afforded by a competitive marketplace when considering Crown corporations and monopolies)
- and the right to be heard.

Since then, consumer organizations globally have adopted, adapted, and enhanced that list to include:

- the right to basic needs,
- the right to redress,

- the right to consumer education,
- and the right to healthy environment.

Consumers also have responsibilities in conjunction with their rights, which include:

- the responsibility to be critically aware and informed
- the responsibility to take action and speak up in defense of their rights
- the responsibility to be socially responsible in purchasing decisions, considering the impact of those decisions on other consumers, producers, and communities, locally, nationally, and internationally
- the responsibility to be environmentally responsible in the choice and use of products and services
- the responsibility to work with other consumers to promote the interests of all consumers

CAC Manitoba uses these rights and responsibilities as guiding principles for much of our work on behalf of consumers. Five of these rights are impacted in some way by this inquiry into Keeyask and Bipole III, including consumers' right to basic needs (such as light and heat), the right to choice, and the right to protections for the health of our environment, now and in the future. Two of these rights are directly impacted by the non-public nature of this inquiry, including the right to information, and the right to be heard.

Certainly, consumers cannot exercise their responsibilities to be critically aware and informed, and to take action by speaking out on behalf of their rights, in the context of the non-public process that has been followed for this review. This lack of opportunity is of particular importance when the subject matter has such a great impact on consumers' rights.

#### 3. Public and Consumer Engagement:

Over the years, all of the work we have done with consumers, on a variety of topics including that involving Manitoba Hydro, has taught us that the following are three key elements of a review process that will ultimately garner public confidence in Manitobans:

- transparency and accountability in the process,
- freedom from political partisanship and conflict of interest,
- and public access to information, and the opportunity for input from all interested parties and the public

You will note that these elements echo the key messages of literature and case law expressed earlier.

Speaking with consumers - On March 31<sup>st</sup>, CAC Manitoba conducted two focus group style consumer engagement sessions, vial telephone, to learn about consumers experience of the Bipole III and Keeyask decision-making process.

One major theme that arose from both sessions was the importance of publicly available information to inform public debate, and the desire for opportunities for public input and debate. There was a strong link made between public participation, and the importance of accurate, timely information to facilitate meaningful participation. This was mostly centred around two topics:

- cost (business case for BiPole III, costs and cost overruns for both projects),
- location (community/landowner impact).

There was both concern, and on the part of some participants, outrage about decisions made without meaningful public engagement, such as the lack of a public economic review of Bipole III.

Another major theme was concern regarding a lack of transparency, regarding costs, programs (such as First Nation employment on these projects) and impacts on affected communities.

Surveys - We have provided you with two surveys of more than 1,000 Manitobans, which CAC Manitoba commissioned this year that help to illustrate the importance of these three elements to Manitobans. Most recently, Probe Research conducted a survey of 1,049 Manitobans, looking at some of the issues being addressed in Bill 44, put forward by the Minister of Finance earlier this year. Six out of ten respondents felt that the public should have a say in the strategic planning of Crown corporations in this province. 90% of respondents voiced approval for Manitobans to have information about, and input into, decisions made for the marketplace, such as the cap on payday lending rates.

In the spring of 2020, Prairie Research Associates conducted a somewhat lengthier survey of 1,000 Manitobans to assess consumers' appetite for, and concerns/opinions regarding, the future direction of energy use in this province. When asked what would help Manitoba make important decisions regarding energy use in the future (respondents could choose more than one option), 76% chose information about economic costs and benefits of energy strategy alternatives. 66% chose information about environmental challenges and benefits of various alternatives, and 57% chose public access to information about alternative energy delivery systems, including microgrids and community alternatives.

Workshop – On March 10the of this year, CAC Manitoba, working with three other partners, hosted a workshop at the University of Winnipeg entitled *Reenvisioning and Energy Strategy for Manitoba*. More than 80 Manitobans attended in person, (not including the several hundred Facebook views of the workshop video). Public engagement and empowerment were one of seven major themes that arose from this workshop. Sub-themes of this included public education and awareness, and community consultation.

The results of the consumer engagement sessions, workshop, and surveys delivered several strong messages to CAC Manitoba:

- public economic review should be a standard part of the capital project decision-making process
- Transparency and accountability should be major guiding principles in decision-making processes for Crown corporations
- Manitobans want access to information regarding strategic planning and decision-making for Crown corporations
- Manitobans want input into strategic planning and decision-making for Crown corporations
- Manitobans want input in the development of energy strategies, including strategies for hydroelectricity and alternative sources

#### CAC Manitoba recommends the following:

 We re-iterate our strong recommendation that the Commission request additional time for a public element to this inquiry, including public engagement and documentation of a public record

#### Section 5(b) of Terms of Reference

- CAC Manitoba urges the Commission to recommend that all future capital projects of Manitoba Hydro be reviewed by an informed, but unbiased third party, such as the Public Utilities Board, in a public process that will assure both transparency and accountability
- We further recommend that such a process must include public access to information and a record of proceeding, and both public and stakeholder participation
- We further recommend that such processes include follow-up reporting on a regular basis, to ensure that project shortfalls or other issues are also

- addressed in a transparent and public fashion and are available on the public record.
- CAC Manitoba urges the Commission to recommend that Manitoba Hydro's statutory mandate should be clarified to ensure that decision concerning future capital projects are made in the interest of Manitobans, with a community-developed definition of "interest of Manitobans".

#### Manitoba Hydro's Debt to Equity Ratio

In CAC Manitoba's view, Manitoba Hydro and the Government have place an inordinate focus on the Corporation's debt to equity ratio, at the expense of consideration of other means to secure access to the capital markets while protecting consumers. It was reviewed as one of the major drivers for Manitoba Hydro's application to raise rates by 7.9% in 2018. During that proceeding, as you are likely aware, CAC Manitoba engaged Morrison Park Advisors, an independent partner-owned investment banking advisory firm, to look at this issue in light of their corporate expertise. They were specifically asked to look at issues regarding the importance of financial targets, the role of the debt/equity ratio in setting financial targets, and the advisability of setting a goal to reach a financial target by a certain date.

Their findings were summarized in the Executive Summary to their *Report to the PUB* as follows:

- Financial targets are important for rate-setting, both because they indicate the general health of the utility, which must be a factor in rate-setting, and because they are critical to having access to capital markets.
- There appears to be significant doubt as to whether rate-setting should be driven by the Debt to Equity Ratio. This particular financial measure is of secondary importance to the capital markets, and the emphasis placed on it does not appear to lead to balanced, fair results for ratepayers.

• A goal to reach a financial target by a fixed date does not appear to take into account the ever-changing risks faced by the utility, and the need to balance those risks against the interests of ratepayers over time. It may be more advisable to focus on different financial metrics, and seek to achieve and maintain them on some form of rolling-forward basis, which might provide the Public Utilities Board with the flexibility it needs to find a fair and reasonable balance in the setting of rates.

Morrison Park Advisors, *Review of Manitoba Hydro Financial Targets* and the 2017/2018 GRA, 2017-10-31, pg. 4.

At the close of the hearing, the Public Utilities Board determined that a rate increase of 7.9% was not necessary for the health of the Corporation, and not in the public interest. Along with a 3.6% increase, the Board ordered a full public review of the criteria and process used in setting financial targets for Manitoba Hydro. This public review has never taken place.

However, the push from Manitoba Hydro to set financial targets based on the debt/equity ratio continues to plague consumers in this province with the spectre of unreasonably high, well above the rate of inflation, electricity rate increases. This despite Morrison Park's advice regarding flexibility, fairness, and the lesser importance of this measure for capital markets. This despite the PUB's order for a review of criteria and procedures for setting financial targets that has never taken place. While there has been so much on the public record about Bipole III and Keeyask in numerous proceedings, the public record on the financial health and targets of Manitoba Hydro is not as robust, and as the PUB found in order 59-18, is unfinished PUB business.

Under section 5(b) of the Commission's terms of reference, you are being asked to make recommendations for the future financial health of Manitoba Hydro.

CAC Manitoba offers the following recommendation:

 We urge the Commission to recommend to the Provincial government that it direct the PUB, along with Manitoba Hydro and interveners, to participate in a public review of the criteria and procedures for setting financial targets for Manitoba Hydro

#### The Wall Commission and Bill 44

The Terms of Reference ask you to make recommendations about how capital projects should be reviewed in the future. Bill 44, currently before the Legislature, would give the Public Utilities Board some jurisdiction over the review of capital projects for Manitoba Hydro, and also some oversight on strategic planning. While our organization has been vocal in its opposition to Bill 44, these are among the few changes being suggested in this Bill that are supported by CAC Manitoba. Unfortunately, the other changes in the Bill will limit the PUB's ongoing familiarity with the operation, reserves, investments, and other aspects of Manitoba Hydro.

Utility regulation is a steep learning curve. If the PUB is denied access to information over several hearings, and if hearings are held every five years rather than annually, our concern is that the PUB will lose the internal capacity and knowledge of the Corporation to make those important decisions.

In light of this concern, CAC Manitoba offers the following recommendations:

- To promote transparency and accountability and to maintain PUB capacity and expertise, we strongly urge the Commission to recommend to government that Manitoba Hydro come before the PUB for hearings every two years
- CAC Manitoba urges the Commission to recommend that no specific financial targets be specified in the legislation, or alternatively, that there be no financial targets specified in legislation until the PUB public review

has been completed, and there has been further public engagement regarding the outcome of to the review.

#### **Developing an Energy Strategy for Manitoba**

Section 5(b) of the Terms of Reference for this Commission asks you to make recommendations about the future of capital project decision-making and the future financial health of Manitoba Hydro. These lead, in our respectful view, to a discussion of an energy strategy for this province.

When respondents to CAC Manitoba's energy survey were asked to choose the three most important changes that should be made in Manitoba's energy use for the future, 53% wanted to see a change in the sources and fuels we use to generate energy. 54% wanted change in the fuels used for transportation, and 43% wanted to see change in the way energy is used and conserved in Manitoba. When asked what considerations or criteria should be used in making decisions on future energy use, 77% chose impacts on waterways, land, air, and animals, and 63% chose the cost to ratepayers and taxpayers. These were followed closely by climate change (59%) and greenhouse gas emissions (51%).

The workshop held in March took that research even further. Speakers at the session included agricultural producers, businesses, and academics, all talking about and moving toward renewable alternatives beyond their reliance on hydroelectricity.

Three major theme areas arose from the participant workshop sessions: Equity, Sustainability and Efficiency, and Local Control. Each of these theme areas included several major themes, such as the need for long-term strategic and comprehensive planning (province-wide, not limited to Manitoba Hydro), and holistic analysis. An important theme under local control was decentralization, including local energy production, local and cooperative ownership, and

integration of remote communities. (Robb/Fitzpatrick, *Re-envisioning and Energy Strategy for Manitoba*, Appendix C)

The results of both the survey and the workshop confirmed for us that consumers want a say in the future energy choices made in the province, and that they have ideas, opinions, and strategies that they want to know are considered in the decision-making process. It also indicated that there is desire amongst Manitobans for fuel alternatives to hydroelectricity. Some research from other countries suggests that a province like Manitoba, centrally located in the country, is uniquely positioned to be a hub of alternative energy production.

CAC Manitoba suggests the following recommendations:

- We urge the Commission to recommend to government that sound environmental decisions regarding capital projects should be part of an allinclusive province-wide energy strategy, and should include an analysis of alternatives, including the alternative NOT to proceed, and the relative impacts of these alternatives
- We further recommend that an environmental strategy for Manitoba should include input from all stakeholders and the public, and should be the result of a publicly accessible review, ensuring full transparency and accountability and a robust public record

#### **Recommendations Summary**

In closing, I would just like to review CAC Manitoba's ten recommendations to the Commission, nine of which are in direct response to 5(b) of the Commission's Terms of Reference

 CAC Manitoba re-iterates its strong recommendation that the Commission request additional time for a public element to this inquiry, including public engagement and documentation of a public record

- CAC Manitoba urges the Commission to recommend that all future capital
  projects of Manitoba Hydro be reviewed by an informed, but unbiased
  third party, such as the Public Utilities Board, in a public process that will
  assure both transparency and accountability
- 3. We further recommend that such a process must include public access to information and a record of proceeding, and both public and stakeholder participation
- 4. We further recommend that such processes include follow-up reporting on a regular basis, to ensure that project shortfalls or other issues are also addressed in a transparent and public fashion and are available on the public record.
- 5. CAC Manitoba urges the Commission to recommend that Manitoba Hydro's statutory mandate should be clarified to ensure that decision concerning future capital projects are made in the interest of Manitobans, with a community-developed definition of "interest of Manitobans".
- 6. We urge the Commission to recommend to the Provincial government that it direct the PUB, along with Manitoba Hydro and interveners, to participate in a public review of the criteria and procedures for setting financial targets for Manitoba Hydro.
- 7. To promote transparency and accountability and to maintain PUB capacity and expertise, we strongly urge the Commission to recommend to government that Manitoba Hydro come before the PUB for hearings every two years.
- 8. CAC Manitoba urges the Commission to recommend that no specific financial targets be specified in the legislation, or alternatively, that there be no financial targets specified in legislation until the PUB public review has been completed, and there has been further public engagement regarding the outcome of to the review.
- **9.** We urge the Commission to recommend to government that sound environmental decisions regarding capital projects should be part of an all-

- inclusive province-wide energy strategy, and should include an analysis of alternatives, including the alternative NOT to proceed, and the relative impacts of these alternatives.
- **10.**We further recommend that an environmental strategy for Manitoba should include input from all stakeholders and the public, and should be the result of a publicly accessible review, ensuring full transparency and accountability and a robust public record.

On behalf of CAC Manitoba, I would like to thank you for your time and attention today, and for accommodating our request to speak with you.

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## Tab 1A



# VIEWS ON PUBLIC INPUT INTO CROWN CORPORATION GOVERNANCE AND PAYDAY LOAN RATES



SEPTEMBER 7, 2020

CONSUMERS ASSOCIATION OF CANADA

PROBE RESEARCH INC.

## FOR MORE INFORMATION:

### Curtis Brown Principal

#### PROBE RESEARCH INC.

603 – 191 Lombard Ave. Winnipeg, MB R3B 0X1 (204) 894-3298 curtis@probe-research.com

www.probe-research.com



#### **KEY FINDINGS**

 The following are the key findings from an online survey of a representative sample of 1,049 Manitoba adults conducted August 19<sup>th</sup> to 29<sup>th</sup>, 2020.

#### **Crown Corporation Input and Decision-Making**

- When asked who should set prices and create customer classes for publicly-owned
   Crown corporations in Manitoba, citizens are most likely to prefer to give an independent,
   arms-length commission or board these powers.
  - Fully one-half say independent bodies should have the power to set prices for the products sold by Crown corporations, with one-quarter saying the Crown corporation itself is the most appropriate body to set prices.
  - Four-in-ten say these bodies are most appropriate for establishing customer classes, with only about one-third saying the Crown corporation that sells the product is the most appropriate body to create customer classes, and one-quarter say it should set product prices.
  - For both prices and customer classes, only about one-in-ten feel it is most appropriate for the provincial premier and cabinet to have these powers.
- When asked to rank the most important factors to consider when setting pricing for Crown corporation products, Manitobans are most likely to select the cost of producing or delivering the product and the cost of living in Manitoba.
  - About four-in-ten provide a top-3 ranking for the ability of customers to pay, with this sentiment more likely to be expressed by those from lower-income households.

#### **KEY FINDINGS**

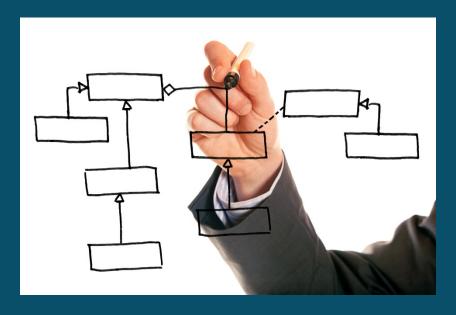
#### **Crown Corporation Input and Decision-Making (cont'd)**

- Nearly six-in-ten Manitobans agree the general public should have input into Crown corporations' long-term strategic plans. This is nearly the same proportion as those who say the Crown corporations themselves should weigh in on these plans.
  - Again, when asked which is the most appropriate body for approving these strategic plans, one-half said an independent, arms-length commission should do so.

#### **Payday Loan Rates**

On the issue of payday loans, Manitobans overwhelmingly agree they should continue to have access to information about the rates the provincial government allows lenders to charge, and that they should continue to be able to provide input into what these rates should be. This sentiment is widely shared across all demographic groups.

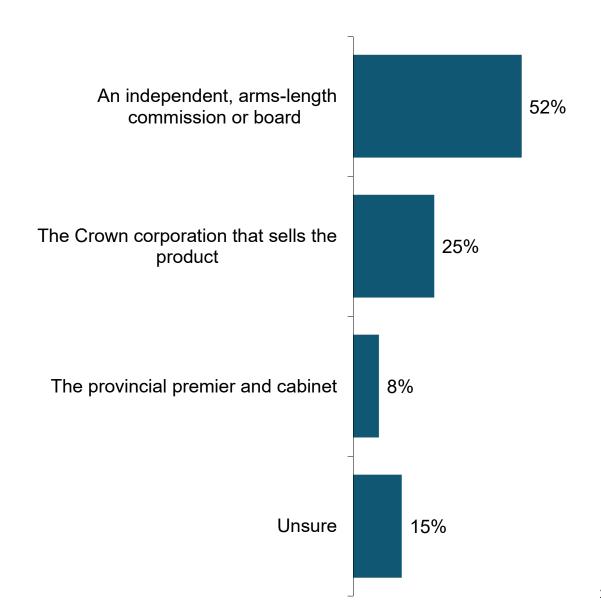
#### **METHODOLOGY**



- Between August 19th and 29th, 2020, Probe Research surveyed a representative sampling of 1,049 Manitoba adults. The sample was provided by Probe Research's proprietary panel and supplemented by respondents from a national panel provider.
  - This includes an oversampling of Manitoba's North, with a total of N=87 respondents from this region completing the survey. Northern Manitoba was oversampled to measure any comparisons between this region and other parts of the province.
- An online survey is a sample of convenience, so no margin of error can be ascribed. However, a random and representative non-convenience sample of 1,049 Manitoba adults would have a margin of error of ± 3.0 percentage points, 19 times out of 20. The margin of error is higher within each of the survey's population subgroups.
- As is standard public opinion research practice, minor statistical weighting has been applied to this sample to ensure that age and gender characteristics properly reflect known attributes of the province's population. All data analysis was performed using SPSS statistical analysis software.
- The survey questions were designed by Probe Research in close collaboration with the Consumers Association of Canada (CAC), with technical expertise from Dr. Patricia Fitzpatrick (University of Winnipeg).
- Results provided in this report may not add to exactly 100% due to rounding.

#### ONE-HALF SAY AN INDEPENDENT BODY SHOULD SET PRICES FOR CROWN CORP PRODUCTS

B2. "And, in your view, which of the following is the most appropriate body for setting prices on products purchased from Crown corporations?"



Base: All respondents (N=1,049)

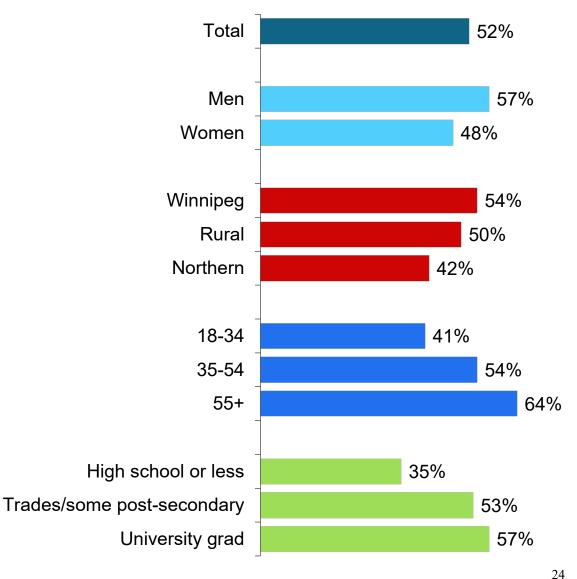
23

#### MEN, OLDER **ADULTS MORE LIKELY TO WANT** AN **INDEPENDENT BODY TO SET** PRICES FOR **CROWN PRODUCTS**

B2. "And, in your view, which of the following is the most appropriate body for setting prices on products purchased from Crown corporations?"

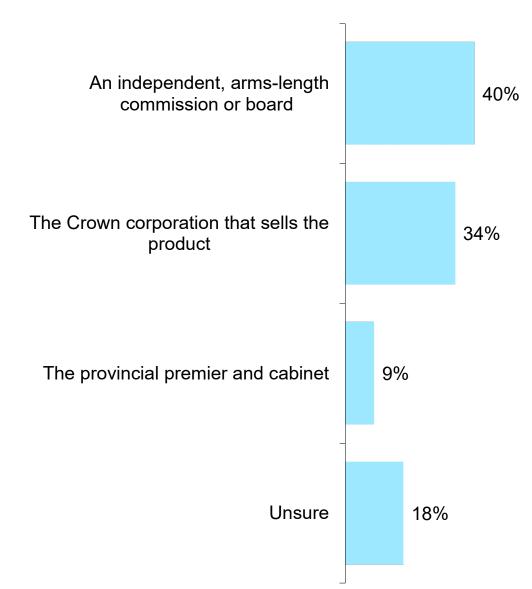
Base: All respondents (N=1,049)

#### % who say an independent body should set prices for Crown corporation products



# FOUR-IN-TEN WANT AN INDEPENDENT BODY TO SET CROWN CORP CUSTOMER CLASSES

B1. "Services provided by Crown corporations often have different customer classes, with specific policies and rates for each class. For example, with automobile insurance, the customer types include private passenger vehicles, motorcycles, taxis and ride shares, rental vehicles, etc. In your opinion, which of the following individuals or groups do you think is the most appropriate body that should have the power to create these customer classes? Please select only one response."



Base: All respondents (N=1,049)

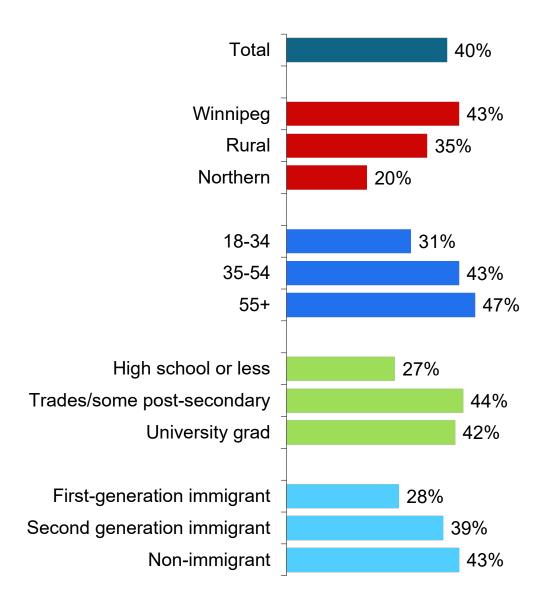
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# SIMILAR GROUPS WANT TO SEE INDEPENDENT BODIES CREATE CUSTOMER CLASSES FOR CROWN CORPS

B1. "...In your opinion, which of the following individuals or groups do you think is the most appropriate body that should have the power to create these customer classes? Please select only one response."

Base: All respondents (N=1,049)

#### % who say **an independent body** should create customer classes for Crown corporations

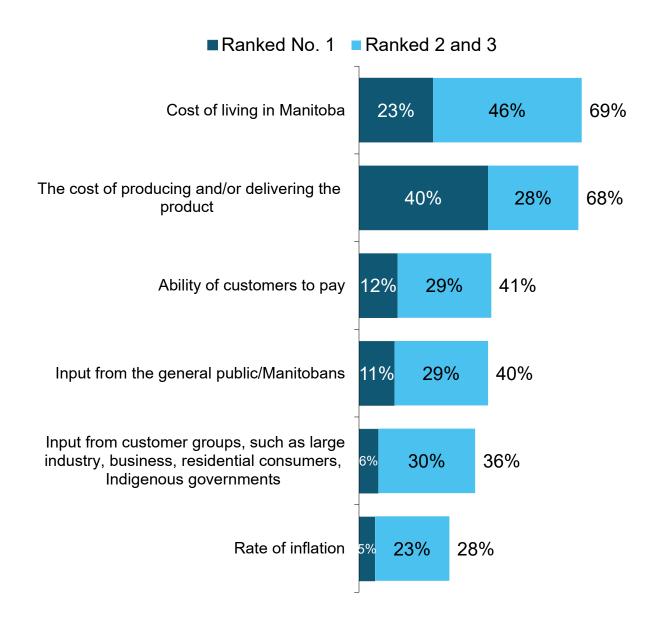


# PRODUCTION COSTS, COST OF LIVING MOST IMPORTANT FACTORS FOR CROWN CORP PRODUCTS

B3. "How important are each of the following when setting prices on products purchased from Crown corporations? From the list below, please rank the top-three items in order of their importance:"



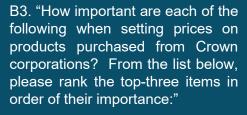
Multiple answers accepted. Totals will add to more than 100%.



# OLDER, WEALTHIER INDIVIDUALS MORE LIKELY TO RANK PRODUCTION AND DELIVERY COSTS HIGHLY

Those most likely to be concerned about product cost/delivery:

- Older adults aged 55+ (78% rank it in their top-3)
- Those with higher levels of education (74% among university graduates) and household income (76% among those earning \$100K+).





Conversely, younger adults are more likely to cite the cost of living as an important factor (78% among those 18-34 and 71% among those 35-54 vs. 55% among those 55+).



The ability of customers to pay, on the other hand, is more likely to be cited by those from lower-income households (52% among those earning \$100K+).

Base: All respondents (N=1,049)

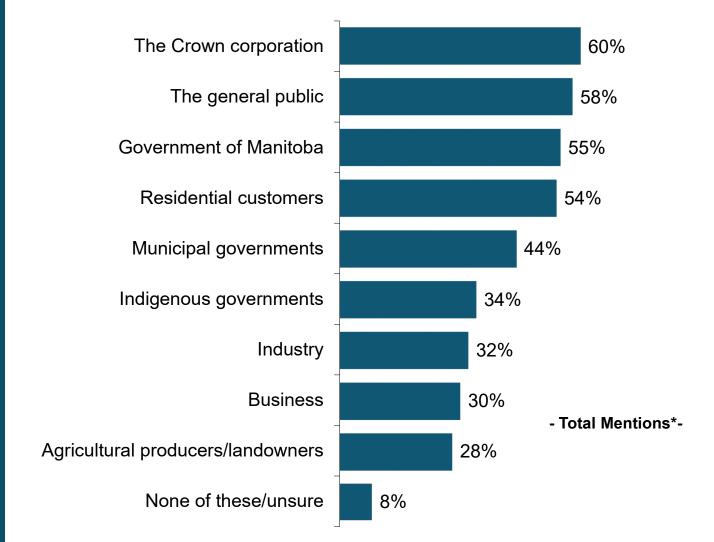
Multiple answers accepted. Totals will add to more than 100%.

# SIX-IN-TEN SAY THE PUBLIC SHOULD HAVE INPUT INTO CROWN CORPORATION STRATEGIC PLANS

B4. "When a Crown corporation develops a long-term, strategic plan for service delivery, who, if anyone, should have input in developing the plan? Choose all that apply:"



\*Multiple answers accepted.
Totals will add to more than 100%.

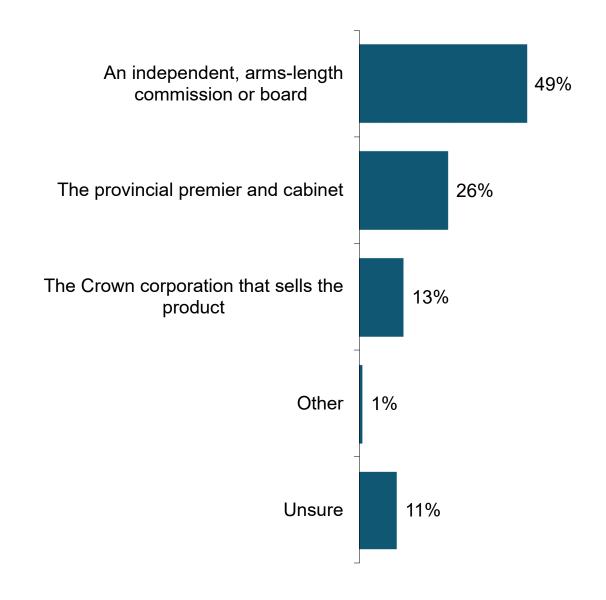


- Those in rural Manitoba are most likely to say agricultural producers should have a say into these strategic plans (35% vs. 23% among those living in Winnipeg and 20% among Northerners).
- Indigenous Manitobans (47%) and women (37% vs. 29% among men) are more likely to say Indigenous governments should have input into these strategies.

# ONE-HALF BELIEVE AN INDEPENDENT COMMISSION SHOULD APPROVE CROWN CORP STRATEGIC PLANS

B5. "When a Crown corporation develops a strategic plan, who should ultimately be responsible for approving that plan? Please select one option from the list below."



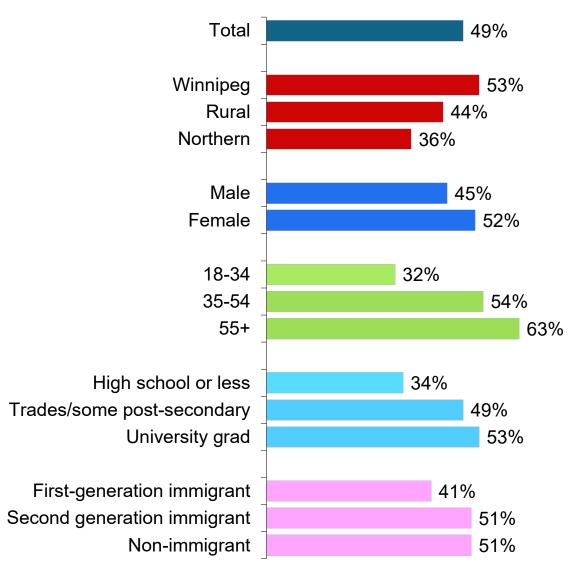


# OLDER ADULTS, WINNIPEGGERS MOST LIKELY TO WANT INDEPENDENT APPROVAL OF CROWN CORP STRATEGIC PLANS

B5. "When a Crown corporation develops a strategic plan, who should ultimately be responsible for approving that plan? Please select one option from the list below."

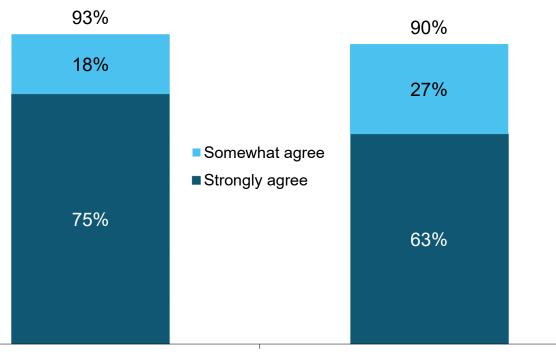
Base: All respondents (N=1,049)

#### % who say **an independent body** should approve Crown corporation strategic plans



# NINE-IN-TEN MANITOBANS AGREE THEY SHOULD BE ABLE TO PROVIDE INPUT, ACCESS INFORMATION ON PAYDAY LOAN RATES

B6. "The following question is about payday loans, which are short term loans provided by non-traditional lenders. To what extent do you agree or disagree with the following statements?"



Manitobans should continue to have access to information about the rates the provincial government allows payday lenders to charge for payday loans

Manitobans should continue to be able to provide input about the rates the provincial government allows payday lenders to charge for payday loans

Base: All respondents (N=1,049)

# OLDER MANITOBANS MOST LIKELY TO EXPRESS STRONG AGREEMENT WITH PUBLIC PARTICIPATION IN SETTING LOAN RATES

B6. "The following question is about payday loans, which are short term loans provided by non-traditional lenders. To what extent do you agree or disagree with the following statements?"



Older Manitobans aged 55+ are more likely to **strongly** agree that citizens should be able to both access information and provide input on payday loan rates (86% and 72% respectively).



Northern Manitobans are most likely to strongly agree that citizens should be able to provide input on the rates the government allow lenders to charge (75% vs. 61% among those in rural Manitoba and 64% among those living in Winnipeg).

Base: All respondents (N=1,049)

## Tab 1B



## RE-ENVISIONING AN ENERGY STRATEGY FOR MANITOBA: PLANNING FOR 2030 AND BEYOND

Report Prepared By: Kate Robb and Dr. Patricia Fitzpatrick

















Robb, K & P. Fitzpatrick (2020) Re-envisioning an energy strategy for Manitoba: Planning for 2030 and Beyond. A workshop held by the Consumers' Association of Canada, Manitoba Branch, the Public Interest Law Centre, and the University of Winnipeg. Winnipeg, MB.

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# 1.0 Introduction

On March 10, 2020 the Re-envisioning an Energy Strategy for Manitoba: Planning for 2030 and Beyond workshop was held at The University of Winnipeg. The purpose of the event was to initiate a discussion amongst Manitobans about energy in the province. In doing so, it brought together people with a variety of energy-based perspectives and interests, including consumers, researchers, students, Indigenous peoples, energy providers, entrepreneurs, decision-makers, and members of the public interested in the future of energy use in Manitoba.

This event was organized by The Community Appropriate Sustainable Energy Security (CASES) Partnership, the Manitoba Branch of The Consumers' Association of Canada (CAC), The Public Interest Law Centre (PILC), and Amanda Gelfant. Additional information about the organizing team is found in Appendix A.

The objectives of the workshop were to:

- 1) Encourage members of the community to come together to discuss the future of our energy in Manitoba;
- 2) Hear from experts working on energy-based initiatives;
- 3) Hear from participants regarding interest in, and factors that drive interest in, various energy sources and models (including but not limited to hydro-electricity, distributed energy resources, etc.); and,
- 4) Identify and prioritize which factors should be taken into consideration in a forward-thinking energy strategy (e.g. greenhouse gas emissions, local control, range of alternatives, etc.).

The workshop consisted of two sessions. Each included presentations from a panel of speakers, a round of questions and answers, and an audience focused workshop. Between the two sessions, results from a provincial wide survey on Manitobans' perspectives on energy were presented to the audience.

87 participants attended the event. Additionally, 10 people participated via the livestream on the CAC Manitoba Facebook page. As of June 18, 2020, the video of the event had a view count of 688 (https://www.facebook.com/119395024836293/videos/201046687905220/).

This report summarizes key aspects of the event, following a chronological format. Section 2.0 focuses on the afternoon session. Section 3.0 summarizes the events of the evening session. Section 4.0 outlines the conclusion at the end of the event. Supplementary information can be found in the appendices.

# 2.0 Afternoon Session

2.1 Opening Remarks by Elder Florence Paynter

The event began with an opening address by Elder Florence Paynter, who is from Sandy Bay First Nation and is a band member of Norway House Cree Nation. Beginning in Anishinabe, Elder Florence acknowledged the Creator, and all that the Creator has provided for us. She acknowledged the importance of this workshop, and what a great opportunity it was to bring

people together to discuss the topic of energy in Manitoba. Elder Florence's address explored keys themes that resonated throughout the day.

One of these themes situated energy in the context of human rights. Elder Florence described how Manitobans experience unequal access to affordable and reliable energy, questioning if current policies that see those in the southern portion of the province receiving the best service are race-based. She emphasized the impacts of hydro development on northern First Nation communities, which includes impacts on water quality. Although the right to water has recently been recognized as a human right, people in many of these communities still do not have access to clean and safe running water. Elder Florence called for a shift in thinking about where hydroelectricity is produced in Manitoba, and where it is transmitted to, in order to address these important human rights issues.

This need for a shift in thinking was woven throughout Elder Florence's address, as she called upon everyone to work together and join her in changing the narrative, with a reminder that the Treaties are the basis for all present and future agreements. Elder Florence noted the importance of working together to protect the resources that we have as they are currently being depleted. She emphasized that we must all come together and build relationships based on trust, and use our unique gifts and skill sets to build a better future for all of Manitoba.

Elder Florence advocated for the importance of local ownership and control of energy sources. In particular, she pointed to the need for First Nations communities to explore alternative energy sources as a mechanism for both sustainability and contributing to the local economy to reduce poverty. She emphasized the importance of thriving economies in communities, and that the key to achieving this is by the communities using their own environments to sustain themselves.

Elder Florence expressed her vision for the future of energy in Manitoba by illustrating the connection and energy between people through a story about an experience with a group of children. In the closing of her address, Elder Florence reminded everyone that we are all human, and that we can work together to make Manitoba prosper in a way that uses all of our combined energy.



Elder Florence Paynter and Holly Moore Photo Source: Patricia Fitzpatrick

#### 2.2 Panel 1 Presentations

The first panel was designed to provide expertise on the bigger picture of energy, both in Canada and internationally. Full biggraphies of the panelists can be found in Appendix B.

#### Dr. Andrea Kraj

Dr. Kraj's presentation focused on the need to shift energy paradigms around the world, emphasizing the need for innovation, as society cannot continue with the "business as usual" approach. She began by suggesting that energy security is the biggest threat to humanity, pointing to the falling oil stocks due to COVID-19, and the increase in natural disasters putting infrastructure at risk. In terms of what shifts need to be made, two prominent themes resonated: a shift in technology and a shift in scale. Looking to the technology side, the clean tech sector is rapidly growing in Canada, and solar and other renewable energy sources are dropping significantly in price. Technological solutions to address energy insecurity include distributed intelligent generation, which consists of microgrid systems and the use of multirenewable energy generation.

In terms of shifts in scale, Dr. Kraj echoed Elder Florence in emphasizing the north/south divide, including recognizing that four communities in northern Manitoba continue to rely on diesel fuel for heat and electricity. Technology cannot just be deployed into a community, community led operation of that technology is needed. Now is the time for First Nations communities to reconnect with the land to gain energy sovereignty and build resiliency. By shifting the scale from big systems to smaller ones, communities will have the power to empower themselves to produce energy that is efficient, affordable and reliable. The benefits of community level energy systems are significant, and include local job creation, less foreign reliance, and higher returns on investment.

#### Dr. Mark Winfield

Dr. Winfield's presentation focused on the North American energy sector context, and the changes in landscape that are occurring within it and will have implications for Manitoba's energy future. Key changes which must be addressed include: climate change, economic restructuring, technological revolutions, Indigenous peoples, and the fossil fuel market.

Beginning with climate change, we are now moving beyond projecting impacts to actually experiencing them first hand. Increased floods, wildfires, and other natural disasters are examples. In terms of economic restructuring, there have been market changes, including a flatlining of energy demand despite economic and population growth, likely due to structural economic changes such as a shift from manufacturing to service based activities. With this in mind, utilities will have to adapt and think about what future models will look like, as business as usual assumptions about demand no longer apply. Dr. Winfield brought up many of the same points as Dr. Kraj regarding technological revolutions in the energy sector. Key points included the convergence of renewables and storage developments, changes in the fossil fuel sector, and developments around smart grids. The benefits of Community Energy Plans for both urban and remote First Nations are among important aspects within the change in landscape around Indigenous peoples. Finally, in terms of changes in the fossil fuel market, fracking developments are altering the landscape, and the decrease in cost for natural gas is leading to a decline in demand for coal. In addition, we are seeing changes in political dynamics surrounding energy transportation and infrastructure. Recent pipeline protests are an example of such changes.

#### Sadie-Phoenix Lavoie

Sadie-Phoenix Lavoie's presentation focused on the work of Wa Ni Ski Tan: An Alliance of Hydro-Impacted Communities and the impacts of hydro-development in Manitoba. Wa Ni Ski Tan's work

focuses on the impacts and community responses to hydro power, as well as the implications of hydro power in Manitoba, across Canada, and in the United States. Wa Ni Ski Tan does community led research, education and mentorship, history and documentation, as well as other forms of action. Wa Ni Ski Tan aims to bring together hunters, trappers, Elders, youth, and others to learn how they are being impacted by hydro development.

Hydro development in Manitoba has various environmental and social implications. Considering the environmental impacts, hydro development has impacted the five largest lakes in the province, has led to shoreline erosion, and a decline in biodiversity. These environmental impacts are directly linked to the social impacts. For example, shoreline erosion has led to high mercury levels affecting the health of communities, as well as the loss of animals of cultural significance. Other social impacts include the damages to local fisheries impacting community level economies, increased poverty and unemployment leading to substance abuse and suicides, as well as many food related health problems such as diabetes and heart disease.

Sadie-Phoenix Lavoie concluded their presentation by stating that they are not necessarily against hydro development, but many changes need to be made in terms of how it is approached. These changes include considering the ways in which mega dams affect communities, and the rights to water. In addition, there is a need for a shift in framework for how Manitoba Hydro engages with Indigenous communities, as the majority of the current agreements they have are non-monetary. Moving forward, we need to center our relationship with Indigenous communities, to use the potential of renewable energy in a way that benefits everyone.

### **Terry Miles**

Mr. Miles' presentation came from Manitoba Hydro's utility perspective, and outlined the ways in which the crown corporation is planning to move forward over the next decade and beyond. He acknowledged that this is not an easy topic in Manitoba due to many issues that were brought up by the other panelists that must be dealt with in order to move forward. Three main disruptors that will drive change and impact the world of tomorrow were identified: the three D's of decarbonization, decentralization, and digitalization.

Decarbonization, refers to the increasingly important role of renewables as governments seek to lower their emissions. Changes in legislation like the carbon tax are driving this change, as well as the improvements to battery technology creating shifts in the transportation sector. This creates challenges for utilities, for example in terms of how ownership and distribution of charging stations will work. Regarding decentralization, Manitoba Hydro undertook a pilot project that saw considerable interest in self generation. Technological improvements are leading to cost declines, and it may therefore become cheaper for people to generate their own power rather than buy it from the grid. This in turn will lead to an increase in people unplugging from the grid, therefore leading to higher costs for those who are still grid connected. Clearly a challenge for utilities, Manitoba Hydro will have to manage a two-way flow of energy, while also keeping it reliable. The third and final disruptor was digitalization. With more automation and individual control, customer expectations are changing. They are now expecting immediate access to information, immediate responses via social media, and to be able to monitor energy use through smart phones. This is creating changes in the way in which Manitoba Hydro needs to interact with customers, in order to ensure they are getting what they want at the best value.

Manitoba Hydro is working to develop long term plans, that will give customers more choice about where they get energy. Due to the three disruptors, utilities need to adapt and change the way they interact with customers. The long-term plan will have a customer focus, and will adapt to changes in technology while maintaining affordable rates.

# Dr. Greg Poelzer

Dr. Poelzer's presentation began with the statement that there are three big challenges currently facing the energy sector: grid modernization, energy security, and climate change. His presentation focused on Manitoba's advantage of having a large and growing Indigenous population when thinking about the future of energy within the province. Investing in Indigenous peoples and communities can have positive economic impacts for the province, and increase energy security in those communities.

There are many opportunities to invest in Indigenous owned companies, especially when the New West Partnership is considered. Indigenous peoples tend to spend money locally, and are also the most entrepreneurial class in Canada (Indigenous entrepreneurs/small businesses are growing and outperforming the rest of Canada), therefore investing in them would significantly grow Manitoba's economy. In terms of where energy fits in, there is a need to go beyond infrastructure and cents per kilowatt-hour and prioritize partnerships with communities. There is an important connection between energy and food security, and as such, there is a need to leverage new economic opportunities that also improve health and social outcomes in Indigenous communities. The key to a sustainable energy future in Manitoba is partnerships with communities, such as the CASES partnership.

# 2.3 Panel 1 Questions

Following the first panel presentations, there was an opportunity for participants to ask questions of the panelists. Unfortunately, due to the presentations running long, the question period was cut shorter than had originally been planned.

# Key themes from this question period included:

#### **Community consultation:**

The panelists were asked about the future of consultation in order to protect communities and their resources. It is important to be prepared for climate change related events and ensure that everyone is adequately represented at decision making tables. In addition, Canada needs to improve in undertaking strategic environmental assessment that includes ongoing consultation and builds public literacy and trust.

# Legislation challenges in Manitoba:

Several participants were concerned with limitations imposed by legislation and/or policy in Manitoba. These concerns included the inability for individual producers to sell power back to Manitoba Hydro, which in turn impedes forward progress in improving Manitoba's energy system. Terry Miles acknowledged that while Manitoba Hydro is considering these things, the province has responsibility for the legislation.

# 2.4 Workshop 1

In the workshop sessions, participants were broken into small table groups and were presented with three questions:

- What are the strengths and weaknesses of Manitoba's current energy system?
- What limitations face Manitoba's energy system as we look forward to 2030 and beyond?
- What aspects do you think should be used to frame an energy plan for our province?

The responses were collected and analyzed for common themes using NVivo 12.

# Question 1: What are the strengths of Manitoba's current energy system?

The most common responses were grouped in to the four following themes, presented in order of most to least prominent:

#### **Environmental Strength:**

The low carbon footprint of Manitoba's energy system was identified as an environmental strength. Low reliance on carbon for heat and electricity throughout much of the province is positive, as it results in low greenhouse gas emissions. However, this low level of carbon usage does not include the transportation sector of Manitoba's energy system, which is still heavily reliant on fossil fuels. Many potential opportunities to increase the use of several renewable energy sources such as biomass, solar, wind and geothermal were identified.

#### Reliable:

Consistent access to reliable power was identified as a strength of Manitoba's energy system. However, the level of reliability varies in different parts of the province. For example, there is a greater reliability in large urban areas.

#### Available:

The consistent availability of hydro power was identified as another strength of Manitoba's current energy system. There should be a focus placed on using what hydro power is already available in the province for heating and transportation, as well as the opportunity to export to places like Saskatchewan.

#### Affordable:

Affordability was identified as a strength of Manitoba's current energy system. The cost per kilowatt hour is much lower in Manitoba compared to other provinces like Ontario, especially for those living in Winnipeg and the southern portion of the province with more energy efficient housing

# Question 2: What limitations face Manitoba's energy system as we look forward to 2030 and beyond?

The most common responses have been grouped in to the following four themes, presented in order of most to least prominent:

# **Legislative/Regulatory Limitations:**

Many legislative and regulatory limitations facing Manitoba's energy system were identified. The centralized monopoly model of Manitoba Hydro may be a barrier moving forward, as the single supplier system is inflexible, and leads to a lack of diversification within the province's energy system. Additionally, the centralized system limits the ability to adapt to new technologies without financial consequences to the existing hydro system. Furthermore, the Manitoba Hydro Act gives Hydro the exclusive right to sell, which limits innovation and diversification of energy sources as individual producers face difficulty in selling back to the grid. Issues with licensing and

lack of environmental assessment under the Water Power Act, leading to negative social and environmental outcomes, was also identified as a legislative limitation.

#### **Social Limitations:**

Social limitations were another common topic of discussion during the workshop. A major limitation for Manitoba's energy system moving forward is the lack of reconciliation between Manitoba Hydro and the many First Nations communities that have and continue to experience devastating impacts due to hydro development. In order to move forward, Manitoba Hydro and the provincial government need to recognize these impacts and change the way they engage with Indigenous communities. Additionally, the continued reliance on diesel fuel in several northern communities is a problem, as it limits social and economic outcomes in those communities.

#### Financial Limitations:

A range of financial limitations facing Manitoba's energy system moving forward were identified including:

- a lack of subsidies and incentives to support alternative energy projects;
- the low price of natural gas and hydroelectricity; and,
- limited funding for community energy projects.

#### **Environmental Limitations:**

A variety of environmental limitations were identified, including:

- continued dependence on fossil fuels for transportation and heating;
- reliance on imported energy in the transportation sector;
- environmental damage caused by hydro dams; and,
- the use of diesel fuel in remote communities

# Question 3: What aspects do you think should be used to frame an energy plan for our province?

The workshop groups came up with many aspects that should be used to frame an energy plan for Manitoba. The most common responses have been grouped in to the following six themes, presented in order of most to least prominent:

# **Environmental Aspects:**

Environmental aspects were identified as important in framing a provincial energy strategy. These aspects included:

- climate considerations;
- sustainability and conservation;
- environmental rights; and,
- the promotion of alternative energy sources.

# **Reconciliation:**

Reconciliation was another important aspect to workshop participants. Manitoba Hydro needs to consider the ways in which it has treated Indigenous communities in the past, in order to make

changes to this relationship moving forward. Additionally, the need for Indigenous knowledge to be included in the development of a provincial energy strategy was identified.

#### Local control:

Participants also identified the need to include opportunities for local control over energy production in a provincial energy strategy. This included opportunities for community ownership through co-op models, and addressing the idea of energy sovereignty.

#### Legislation/Regulations:

Within the theme of legislation and regulations, several aspects that should be considered when framing a provincial energy plan were identified. These included the need for better legislation relating to environmental assessment and monitoring, taxing activities that increase greenhouse gas emissions, as well as the recognition and inclusion of environmental rights and Indigenous rights. Additionally, a strategy should be long term and take a comprehensive approach.

# **Education/Engagement:**

Another important consideration for developing an energy strategy is the inclusion of public education and engagement. There is a need for an increase in public education and community discussions that would bring engagement to the forefront of policy development. The development of a provincial strategy should not come exclusively from the provincial government and Manitoba Hydro, but should bring in values and priorities directly from the public.

# Affordability:

Affordability is another aspect that was identified to be included in the framing of an energy strategy. While general costs to consumer are of concern, greater importance should be placed on social equity, or fair pricing for lower income and on reserve consumers.

# 3.0 Evening Session

#### 3.1 Survey Results

Following the first half of the event, select results from a survey commissioned by the organizing team were presented by Gloria Desorcy. Prairie Research Associates (PRA) conducted the survey through their online panel from February 25 to 28, 2020. One thousand Manitoban's participated in the survey. Some of the key results that were presented during the event are summarized below. A full report on the survey will be released (tentatively scheduled for Fall 2020).

# Importance of energy sources:

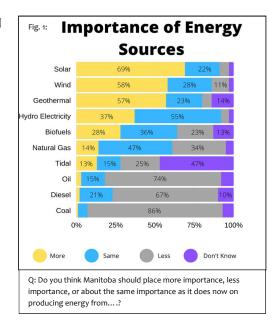
When considering the future of Manitoba's energy portfolio, the majority believed that more importance should be placed on alternative sources, including solar (69%), wind (58%), and geothermal (57%).

Most believed that less importance should be placed on fossil fuels including coal (86%), oil (74%), and diesel (67%) energy production.

# <u>Considerations for energy production decision</u> make<u>rs</u>:

Manitobans felt that the most important considerations when making energy production decisions should be:

- impact on water, land, vegetation and animals (72%);
- cost to ratepayers/taxpayers (63%);
- climate change (55%); and,
- greenhouse gas emissions (47%).



# Difficulty paying electricity bill:

69% of Manitobans believed there should be some type of support for consumers who have difficulty paying their energy bill. The most common choice for the type of support was that more resources should go into programs to help lower income consumers make their homes more energy efficient (40%). About 31% of respondents believed that all consumers should pay the same rates for the energy they use.

#### Future home energy use:

Respondents were asked to consider what changes they would like to make in their home energy use over the next 10 years. Installing LED or more LED lights (47%) was the most commonly mentioned change Manitobans would like to make. Other common responses were improving insulation (40%), installing new windows or doors (39%), supplementing energy with an additional energy source (39%), installing a more efficient furnace (28%), and producing one's own energy (27%).

#### Future transportation energy use:

When asked what changes they would like to make in their transportation energy use over the next 10 years, the most common responses were switching to an electric automobile (40%) and cycle, walk or use transit rather than using an automobile (37%). 29% of respondents said they would like to consider environmental impact when making travel plans.

#### Future energy use strategy:

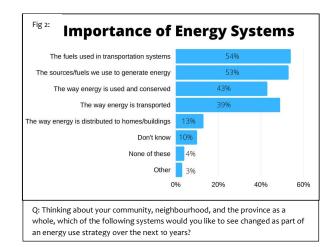
Respondents were asked to consider which systems they would like to see changed as a part of an energy strategy over the next 10 years. The top piorities for respondents were for change in the fuels used in transportation systems (58%), the sources/fuels we use to generate energy (56%), and the way energy is used and conserved in public spaces, buildings, and roadways (54%).

#### Importance of energy systems:

According to respondents, the most important changes for Manitoba's energy system over the next 10 year were fuels used in the transportation systems (54%) and the sources/fuels we use to generate energy (53%). These were followed by the way energy is used and conserved (43%) and the way energy is transported (39%).

# Future energy use decision making:

When considering what could help Manitoba make important energy use



decisions moving forward, respondents felt that having access to information is most helpful as the most common responses were information about economic costs and benefits (76%), environmental challenges and benefits (66%), or alternative energy systems (57%).

# 3.2 Panel 2 Presentations

This panel was designed to focus on the Manitoba context, including on-the-ground projects and initiatives. Full biographies of the panelists can be found in Appendix B.

# Kyle Macdonald BSc, PMP, LEED AP BD+C O+M

Mr. Macdonald's presentation provided insight into renewable energy in the Winnipeg context, using the many initiatives he has led as the Executive Director of Facilities at The University of Winnipeg as examples. He noted that although technically-speaking, a lot of the energy produced in Manitoba is renewable, the province imports energy. There is a need to shift our imported energy towards renewables. Additionally, there is a need to reduce overall energy usage (i.e., total consumption).

The University of Winnipeg has reduced its natural gas intensity by almost half since 1990. In its 2017 Sustainability Strategy, the energy related goals include becoming net zero by 2035. Reaching this goal will require the use of many types of renewables, such as biomass, hydro, and solar. The University recently installed 540 solar panels on the roof of the Recplex, and also uses a biomass system to heat three buildings with wood pellets.

Mr. Macdonald discussed several challenges associated with making the switch to renewables in Winnipeg. These challenges included storage of solar energy and cheap hydroelectricity making solar difficult to sell. He also pointed out several logistical challenges he has encountered, including permitting and inspection processes which have not been updated to reflect renewable energy.



Biomass Heating System at The University of Winnipeg Photo Source: The University of Winnipeg News Centre

#### Michael Stocki

Mr. Stocki's presentation focused on the importance of energy efficiency, and the role of Efficiency Manitoba. He began his presentation by stating that energy efficiency and conservation needs to come first and foremost in an energy strategy for Manitoba. He outlined the economic, environmental, and social benefits of this efficiency first approach.

Looking at the economic benefits, energy efficiency is the lowest cost energy resource, and energy efficiency creates many local employment opportunities for contractors, electricians, and others. The environmental benefits include the direct reduction of greenhouse gas emissions through reductions in fuel use, as well as indirectly through things like manufacturing and installing solar panels. If overall consumption is reduced, there is less of a need to invest in capital intensive infrastructure. Additionally, the reductions in water and waste promotes recycling and conservation culture. Regarding the social benefits, the incorporation of energy efficient measures can lead to better home comfort, increased property values, as well as increased productivity for businesses.

In terms of Efficiency Manitoba, it is a new crown corporation with a mandate to save 1.5% on electricity and 0.75% on natural gas per year following its launch on April 1st, 2020. It has begun some test programs so far, and its three-year plan is now before the government for final approval. The plan is cost effective, as about 70% of its budget goes back to consumers in the form of incentives, and it will create savings for Manitoba Hydro which will then be passed on to consumers through fewer rate increases. Looking to the future, the development of federal building codes that are more stringent in terms of energy consumption, leading to super-efficient smart homes, and integrated building designs and retrofits is critical. There is a need to first drive down consumption, and then to look at decarbonization and decentralization.

#### **Scott Beaton**

Mr. Beaton's presentation focused on the role that farms can play in the future of energy in Manitoba. The two biggest forms of energy use on Manitoba farms are nitrogen fertilizer which is produced through the burning of natural gas, and diesel fuel. By tackling the issue of nitrogen fertilizer, farms could greatly reduce their energy use, as it is a major contributor to Manitoba's emissions, and is not necessary for farming. Mr. Beaton explained that he doesn't use nitrogen fertilizer on his farm as he is an organic producer. As an alternative, farms can use nitrogen fixing crops. In addition to this change, farms can reduce their energy use in the fields by switching to electric vehicles, which includes farm equipment, to reduce their fuel consumption.

Farms are well positioned to consume less energy, as they are more permanently established compared to average people who may move several times over their lifetime. With this in mind, farms can benefit greatly from long term investments in energy conservation measures, and in renewable technologies. Mr. Beaton cited his own farm as an example, where he has installed solar panels on his shed which more than offset their current usage while also leaving room for future expansion.

### Dr. Patricia Fitzpatrick

Dr. Fitzpatrick's presentation outlined her vision for the future of energy in Manitoba, based on her years of experience as a professor and listening to what people have to say about energy at numerous hearings. It has become very clear that there is an appetite to diversify Manitoba's energy portfolio, and people on the ground are working very hard to do this, but there is often a disconnect between policy and decision makers and what is happening on the ground.

This disconnect is illustrated by the siloed approach towards energy in Manitoba, that has emerged due to Manitoba Hydro being a crown corporation. Whenever we talk about energy we immediately talk about Manitoba Hydro, often forgetting many other aspects that need to be a part of the discussion, such as the public. The recent mandate letters to the provincial ministers have charged Manitoba Hydro with developing a provincial energy strategy, but this responsibility should not fall solely to Hydro, and there is likely a better approach that can be taken.

Looking forward, there is a need to move beyond this siloed approach, to diversify and create more opportunities for others to have input in an energy strategy for the province. Communities play an important role as they each have different resources and needs. This is demonstrated through the CASES partnership, which works with communities to identify and map their energy usage. While communities may have different resources and needs, they have a lot in common in terms of motivations. Communities and survey respondents identified climate change, greenhouse gas emissions, and costs as their top priorities for an energy strategy. Additionally, communities want agency and control over what they're using and buying. Overall, Dr. Fitzpatrick's vision for 2030 and beyond consists of local projects across the province addressing electricity, heating, and transportation in ways that benefit communities.

## Councillor Leo Dettanikkeaze

Councillor Leo's presentation outlined the various energy initiatives that Northlands Denesuline First Nation has undertaken recently. Northlands is a fly in community in northern Manitoba. The community of around 1000 people relies on diesel to heat homes, that is trucked in on winter roads. There are negative impacts of relying on diesel, including high costs, damage to the land, and health impacts due to fuel contamination.

In terms of energy initiatives in the community, they began with a feasibility study to determine the cost of connecting the community to the grid via Lynn Lake. The costs were too high so they remain off-grid. The renewable energy system that they have implemented in the community consists of biomass, in-lake geothermal, and solar. The biomass system uses burnt wood leftover from forest fires to produce heat. Additionally, harvesting the wood creates local jobs. The biomass project was funded by INAC, and can be monitored remotely from Winnipeg. As for the in-lake geothermal system, it uses the lake's energy for heating, and the installation was done entirely by local workers. Finally, the solar system consists of 1100 panels, and they are just waiting on the final agreement with Manitoba Hydro to go through in order to turn the power on. Councillor Leo also expressed the importance of partnerships, as Northlands Denesuline First Nation has worked with many partners including Aki Energy, Boke Consulting, and INAC on these projects.

### 3.3 Panel 2 Questions

Following the second panel presentations, participants had the opportunity to ask questions of the panelists. Panelists also asked questions of each other during this time. This question period was longer than the one that followed the first panel presentations.

#### Key themes from this question period included:

#### **Technical Questions:**

Panelists expanded upon several technical aspects of their work, including the impacts of biomass on air quality, and the requirements for employing geothermal technologies in northern environments.

#### Regulatory Challenges:

Similar to the first question period, participants were interested in the legislative challenges associated with energy innovation in Manitoba. Multiple panelists explained experiencing frustration with inspectors from Manitoba Hydro and the City of Winnipeg, in terms of delays and inconsistencies in interpretation of the rules.

#### **Efficiency Manitoba:**

Several participants asked questions about Efficiency Manitoba's future plans. For example, when asked about specific programs for remote and northern communities, Michael Stocki of Efficiency Manitoba stated that lots of opportunity to make positive social impacts exist within that customer segment, but they will need to do more work to develop community specific approaches. Additionally, participants were interested to hear about how Efficiency Manitoba could be involved in the development of a provincial energy strategy. Michael Stocki expressed that they could provide the efficiency perspective, which could include cost-benefit analyses to illustrate the long-term benefits of various efficiency measures for Manitoba.

# 3.4 Workshop 2

The second workshop session followed the same format as the first. The three questions were:

- What barriers confront Manitobans who seek alternative energy sources?
- What are the opportunities that could be used to support Manitobans who seek alternative energy sources?
- What are your top three priorities for framing an energy strategy?

# Question 1: What barriers confront Manitobans who seek alternative energy sources?

Workshop groups came up with several barriers that Manitobans seeking to access alternative energy sources face. The responses have been grouped into the following four themes, presented from most to least prominent:

# Legislative/Regulatory Barriers:

Several legislative and regulatory barriers that are currently in place in the province were identified, the biggest being the Manitoba Hydro Act impeding smaller scale producers from selling power back to the grid system. Additionally, several participants noted experiencing issues with inspectors interpreting codes for solar and biofuel installations inconsistently. A delay in the rate that policies are being updated compared to the advancement in renewable technologies was also identified as a barrier.

#### Financial Barriers:

Several financial barriers were also identified. These included the high costs of renewable technologies, as well as the length of the payback period following the initial investment in alternatives. The low costs to consumers within the current energy system are also a financial barrier, as they reduce incentive to switch to alternative sources.

#### **Education and Information Barriers:**

A lack of education and information was identified as a barrier for Manitobans who seek alternative energy sources. For example, a lack of readily available information on programs available to assist with the switch to alternative sources, as well as a lack of the specific skills needed to implement these technologies.

#### Accessibility:

The accessibility of alternative energy sources is also a barrier. Many products are not commercialized or scalable to the needs of small scale or individual energy producers

# **Geographic Barriers:**

The climate in Manitoba can be a barrier, as not all alternative energy technologies can operate effectively in harsh winters. Additionally, the great distance between communities is a geographic barrier, as it creates challenges for transmission and transportation.

Question 2: What are the opportunities that could be used to support Manitobans who seek alternative energy sources?

The workshop groups identified many potential opportunities that could be used to support Manitobans who seek alternative energy sources. These opportunities have been grouped in the following six themes, presented from most to least prominent:

#### Legislation/Regulatory Changes:

As many legislative and regulatory barriers were identified in the previous question, solutions to these problems were also identified. These solutions included changing legislation to allow for decentralization of the energy system, allowing for multiple grids and utilities to operate in the province. Additionally, updating building codes to increase efficiency, increasing consistency in applying the electrical code, and allowing community energy projects to sell power at the local level.

#### Incentives:

The need for subsides and incentive programs to facilitate alternative energy projects was identified. Funding should be provided for energy innovators who are leading the way, and affordability in the north should be increased.

### Carbon Pricing:

Carbon pricing was identified as another opportunity to support Manitobans who are interested in alternative energy sources. Participants supported the idea of long-term carbon pricing, that sees revenue going to support alternative energy projects. Additionally, there is a need to stop subsidizing the oil and gas industries as a way to facilitate the transition to renewable energy across all sectors.

#### Education:

An increase in education was also identified as an opportunity to support Manitobans seeking alternative energy sources. It is necessary to increase the accessibility of educational materials, such as energy maps, and use different tools to educate people about the use of alternative energy, such as YouTube videos.

#### **Investment:**

The need for more government level investment into alternative energy projects was identified. For example, using geothermal or biomass for heating, and district heating for large scale institutions.

#### **Collaboration:**

Another area of opportunity identified is an increase partnerships and collaborations between industry, communities and academics to do research and create opportunities for renewable energy projects.

#### Question 3: What are your top 3 priorities for framing an energy strategy?

Prior to the start of the second workshop session, two University of Winnipeg students complied and coded the responses from the third question of the first workshop session (see Appendix C). The dominant responses were presented to the participants on a screen, and the groups were encouraged to identify their top three priorities for framing a provincial energy strategy. As some

groups chose more than three, the responses have been grouped into the following five themes, grouped from most to least prominent:

#### **Environmental Considerations:**

This includes conservation, lowering greenhouse gas emissions, comprehensive environmental assessment, and other climate considerations.

# **Indigenous Inclusion:**

This includes reconciliation on the part of Manitoba Hydro for past and present damage to communities, as well as the inclusion of Indigenous knowledge in shaping the energy strategy.

# **Education and Engagement:**

This includes an increase in opportunities for public education, such as community forums and other events, and ensuring that public input contributes to the development of the energy strategy.

#### Long-term Planning:

Ensuring that the strategy is holistic, in the sense that it includes a variety of perspectives and considerations, and is also long term was very important among participants.

#### Decentralization:

Decentralization of the province's energy structure is also a priority.

### 4.0 Conclusion

The closing remarks were made by Byron Williams, director of the Public Interest Law Centre. He offered a concise summary of the day, pointing out several highlights and prevalent themes. He began by recalling the great start to the day with Elder Florence's address, emphasizing that the energy she started the event with could still be felt in the room. The highlights of the first panel were described using the letter 'D'. First of all, diversity, which was reflected in the perspectives of the panelists and participants. Followed by disruption, which includes the disruption of climate change, economic and technological disruptions, and the disruptions to Indigenous communities caused by hydroelectric activity. Next were the 3 D's of decarbonization, digitization, and decentralization. Finally, democracy, which was reflected in the consumer survey that showed a desire for more choice for consumers.

Byron outlined the highlights of the second panel which included a need for a long-term view regarding energy in the province, a desire for agency over production, and the inspiring real-world stories of what people are doing on the ground in Manitoba. Additionally, there was a common theme relating to the intersection of policy barriers and opportunities, for example carbon pricing, that can be used strategically to drop the competitive advantage to natural gas. Byron concluded his remarks by emphasizing the need to get out from the siloed approach that has been dominating Manitoba's energy sector.

# Re-envisioning an Energy Strategy for Manitoba: Planning for 2030 and Beyond

At the end of the event, participants were asked to complete feedback forms to share their thoughts on the workshop format and purpose. A summary of this feedback can be found in Appendix D.

This report will be shared with all panelists and participants, as well as key decision makers in Manitoba. Additionally, the report will be publicly available on the CAC Manitoba website.

#### Appendix A: About the organizers

**CASES** - The **C**ommunity **A**ppropriate **S**ustainable **E**nergy **S**ecurity (**CASES**) Partnership is a SSHRC-funded project with the goal of reimaging energy security in northern and Indigenous communities by co-creating, with communities, and sharing the knowledge, understanding and capacity to design, implement and manage renewable energy systems that support and enhance social and economic values. It is hosted by the University of Saskatchewan and jointly led by an international team of northern researchers and partner organizations from Canada, including the University of Winnipeg, the United States (Alaska), Sweden, and Norway.

Consumers' Association of Canada – Manitoba – Formed in 1947, CAC Manitoba is a volunteer, non-profit, independent organization working to inform and empower consumers and to represent the consumer interest in Manitoba. It is a branch of the national Consumers' Association of Canada but is financially separate and separately incorporated. CAC Manitoba represents the interests of consumers across Manitoba in a number of areas including financial services, food safety and security, patient rights, environmental sustainability and the regulatory review of utilities and Crown's delivering services and products to consumers.

**Public Interest Law Centre** – PILC is an independent office of Legal Aid Manitoba which represents groups and individuals on issues affecting the environment, human rights, Indigenous people, consumers and low-income persons. We are here to assist those who are far too often silenced in legal and public policy debates by providing high quality, evidence-based advocacy.

Amanda Gelfant – is an independent researcher and consultant in the areas of Clean Technology.



Organizing Committee: From Left to Right – Jaqueline Wasney, Gloria Desorcy, Amanda Gelfant, Kate Robb, Patricia Fitzpatrick, Katrine Dilav

#### **Appendix B: Panelist Biographies**

#### Panel 1 Biographies

# Professor Greg Poelzer

Dr. Greg Poelzer, is a Professor in the School of Environment and Sustainability (SENS) at the University of Saskatchewan. He is the Co-Director of a multi-million-dollar SSHRC Partnership Grant (2019-2026), Community Appropriate Sustainable Energy Security (CASES), which spans 15 Indigenous and Northern communities across Canada, Alaska, Norway, and Sweden. He also is the Lead of the Renewable Energy in Remote and Indigenous Communities Flagship Initiative at the University of Saskatchewan and Lead of the UArctic Thematic Network on Renewable Energy. He is the co-lead of the International, Fulbright Arctic Initiative III. Dr. Poelzer serves as an Advisor and Negotiator for SaskPower, working toward a global settlement with a major First Nation in northern Saskatchewan that will resolve historical issues and build new relationships going forward. A political scientist by training, his deep connections with industry, government, NGO's and Indigenous communities in Canada and across the circumpolar states are successfully driving both initiatives.

# Professor Mark Winfield

Dr. Mark Winfield is a Professor of Environmental Studies at York University. He is also Co-Chair of the Faculty's Sustainable Energy Initiative, and Coordinator of the Joint Master of Environmental Studies/Juris Doctor program offered in conjunction with Osgoode Hall Law School. He has published articles, book chapters and reports on a wide range of climate change, environment and energy law and policy topics. Professor Winfield has acted as an advisor to the Environmental Commissioner of Ontario and federal Commissioner for Environment and Development. He is a member of the Conseil d'administration (board of directors) of Transitions energetique Quebec, a Crown corporation established in 2017 to implement an energy transition strategy for Quebec.

# Terry Miles, Director of Power Planning, Manitoba Hydro

Terry is a civil engineer with over 25 years of experience with Manitoba Hydro in the areas of planning, operation and maintenance of generation assets.

His responsibilities have included monitoring of the future business environment from energy, environmental, climate change and GHG policy perspectives as well as the provision of water resources and environmental engineering support and environmental management and monitoring services.

## Professor Andrea Kraj, Core Renewable Energy

Dr. Andrea Kraj is a leader in developing advanced, multi renewable energy systems. She is a practicing professional engineer (Engineers Geoscientists Manitoba), with 22 years of experience, specialized in Microgrid Energy Systems and Smart Grid Technology. Her work focuses on the application of intelligent energy systems for improved management of multiple renewable energy systems (wind, solar, biomass, storage etc.) for remote electrification. She holds degrees in Mechanical and Manufacturing Engineering with Aerospace Specialization and is a pioneering

leader in developing sophisticated computer modeling and simulation of advanced energy systems.

She is an accomplished author and speaker (TEDx), having published several articles on energy policy, community energy development, and remote power systems. Dr. Kraj also created and hosts the podcast, Fempower, with the intention of celebrating women, especially focused on representing women in the T.E.A.M.S. fields.

#### Sadie-Phoenix Lavoie

Sadie-Phoenix Lavoie is an Anishinaabe Two-Spirit from Sagkeeng First Nation located in Treaty 1 territory. They graduated in 2017 at the University of Winnipeg with a BA in Indigenous Studies and Political Science. They are currently the Community Coordinator at Wa Ni Ska Tan: An Alliance of Hydro-Impacted Communities, and Co-Founder of Red Rising Magazine, an Indigenous-led magazine that aims to give Indigenous youth a platform to share their perspectives and experiences to a broad audience.

Sadie-Phoenix worked on numerous student-led initiatives including the Indigenous Course Requirement and the Fossil Fuel Divestment Campaign, as well attended the UN COP22 in Marrakech, Morocco on behalf of the Canadian Climate Youth Coalition. They were also one of the 100 youth arrested on Parliament Hill protesting the Kinder Morgan Pipeline, and have been on the front lines of Standing Rock.

Sadie-Phoenix strives to honour their traditional roles of the Turtle Clan, spreading truth to all corners of society, and organizes action through a matriarchal approach of Indigenous leadership.

### Panel 2 Biographies

#### Michael Stocki

Michael Stocki is the Vice President of Efficiency Programs at Efficiency Manitoba. Efficiency Manitoba is Manitoba's newest crown corporate devoted to energy conservation and our goal is to make saving energy and reducing your energy bills easy, affordable and satisfying. Michael is responsible for planning, design, administration and delivery of residential, income qualified, Indigenous, commercial, industrial & agricultural efficiency programming. Michael joined Efficiency Manitoba in March 2019, has a bachelors and master's degree in mechanical engineering and is a registered professional engineer with Engineers Geoscientists Manitoba.

# Professor Patricia Fitzpatrick

Dr. Patricia Fitzpatrick (Trish) is an Associate Professor in the Department of Geography, and an Instructor in the Masters of Development Practice: Indigenous Development, at the University of Winnipeg. Trish's research focuses on different aspects of environmental governance surrounding energy and mining development in Canada. She is working with Churchill and York Factory on the CASES Partnership, a SSHRC-funded project with the goal of reimaging energy security in northern and Indigenous communities.

# Kyle Macdonald BSc, PMP, LEED AP BD+C O+M

Kyle Macdonald is the Executive Director of Facilities at the University of Winnipeg where he is responsible for ongoing operations and campus infrastructure. His work at the University over the last several years has been focused on reducing energy consumption and driving change to meet numerous sustainability goals. He has significant professional experience in high performance building systems and retrofitting. Kyle regularly engages with many on and off campus to discuss green initiatives and build creative partnerships.

#### Councillor Leo Dettanikkeaze

Leo Dettanikkeaze is a band councillor overseeing capital projects on Northlands Denesuline First Nation, which is a diesel-powered, fly-in community that relies on winter roads. Councillor Dettanikkeaze has been self-employed in the construction industry for the last 20 years.

#### Scott Beaton

Scott is an organic farmer and conservationist. His farm is about 20 minutes North-West of Winnipeg, where they grow organic grains, raise grass-fed beef, and provide wildlife habitat, and clean water to downstream water users and the aquifer beneath their land through maintenance of riparian habitat, perennials on the landscape and wetland retention. As well, Scott works on wetland restoration, and conservation projects with Manitoba Habitat Heritage Corporation, a crown corporation, set up to preserve wildlife habitat for ecosystem services on private farmland within the province.

# **Appendix C: Workshop Themes**

# Workshop 1 - Question 3: What aspects do you think should be used to frame an energy plan for our province?

#### EQUITY

#### INDIGENOUS

Improved communication between Manitoba Hydro and communities

- -Indigenous energy justice -Reconciliation
- -Land Back Movement

#### ECONOMIC

-Options for low income consumers -Fair prices on Reserve

# SUSTAINABILITY & EFFICIENCY

# CONSERVATION

-Increased energy efficiency -Increased use of renewables

#### LONG TERM PLANNING

-Comprehensive/strategic EIA -Holistic analysis

#### CLIMATE

-Lower greenhouse gas emissions

## LOCAL CONTROL

# DECENTRALIZATION -Local energy generation

-Local ownership -Cooperative ownership -Integration of remote communities

#### PUBLIC ENGAGEMENT& EMPOWERMENT

-Public education and awareness -Community consultation

# Appendix D: Summary of Participant Feedback

At the end of the event, participants were asked to provide feedback on provided forms. Organizers received 27 forms, a response rate of 31%.

The feedback forms asked participants for their opinions on the venue, refreshments and structure of the event. There was also space for participants to express what they enjoyed the most about the event, the least, and any other comments they may have had.

The feedback that was received was generally positive, as only 7 people filled out the section about what they enjoyed the least. 3 of those comments were about the venue and 2 were about the length of the event. One participant said that there was not enough focus on long term energy planning, and another said there was not enough contribution from Manitoba. 8 participants left comments expressing positive feedback about the panel presentations, and 2 left positive comments about Elder Florence's opening address. 3 participants left comments expressing interest in attending more events in the future.

When asked about the amount of time provided for audience questions, 22 participants said it was "just right" and 2 responded that it was "too short". 17 participants thought the length of the panel presentations was "just right", while 8 thought it was "too short". 20 participants responded "yes", when asked if the information presented by the speakers helped prepare them for the workshops.

# Tab 1C

# REPORT ON ENERGY SURVEY OF MANITOBANS

March 6, 2020

Prepared for CAC Manitoba by PRA Inc.



Contact:

Nicholas Borodenko, Partner borodenko@pra.ca 204-594-2080

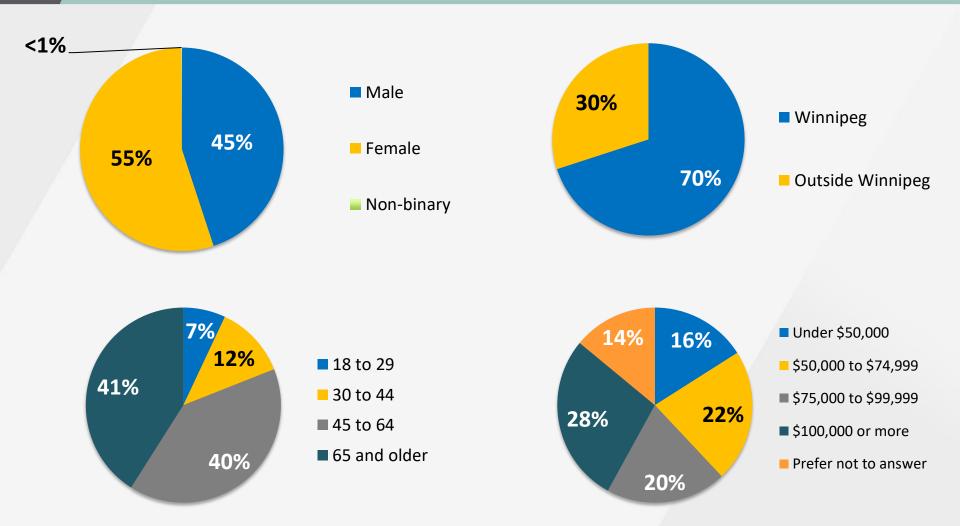


# **METHODOLOGY**

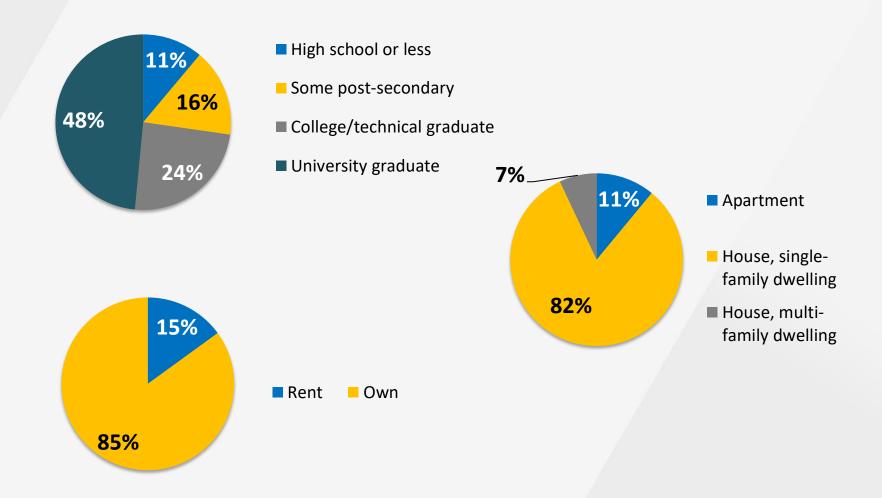
- PRA conducted a survey of Manitobans using its online panel from February 25 to 28, 2020.
- In total, 1,000 Manitobans completed the survey.
- The survey slightly over represents respondents over 45 years of age and those living in Winnipeg. To correct for those discrepancies, the data presented in this report were weighted by age, gender, and region to correct for differences between the demographics of the survey respondents and the Manitoba population; data presented are weighted unless otherwise stated.
- Data in charts may not always sum to 100% due to rounding.

# PROFILE OF RESPONDENTS

# Profile of respondents unweighted (n = 1,000)



# Profile of respondents weighted (n = 1,000)

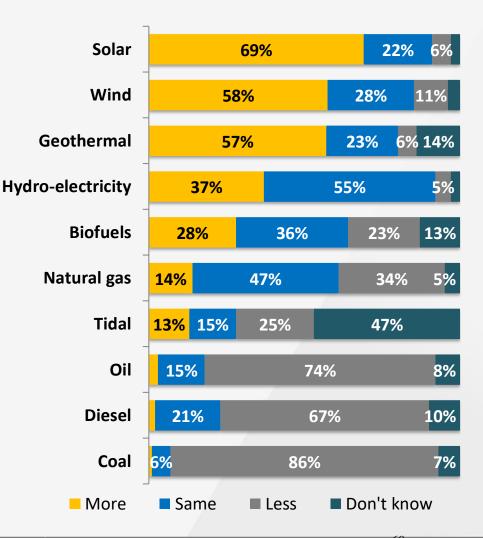


# **ENERGY PRODUCTION**

# Importance of energy sources

Do you think Manitoba should place more importance, less importance, or about the same importance as it does now on producing energy from ...? (n = 1,000)

- The majority of Manitobans believe more importance should be placed on solar (69%), wind (58%), and geothermal (57%) energy production.
- Most believe that less importance should be placed on coal (86%), oil (74%), and diesel (67%) energy production.
- While more Manitobans felt less importance (25%) should be placed on tidal energy production versus more importance (13%), it should be noted that nearly half (47%) were unsure about this type of energy production.
- Another 17 respondents mentioned nuclear energy production, with 79% of those saying it should be of more importance.



# Importance of energy sources key differences

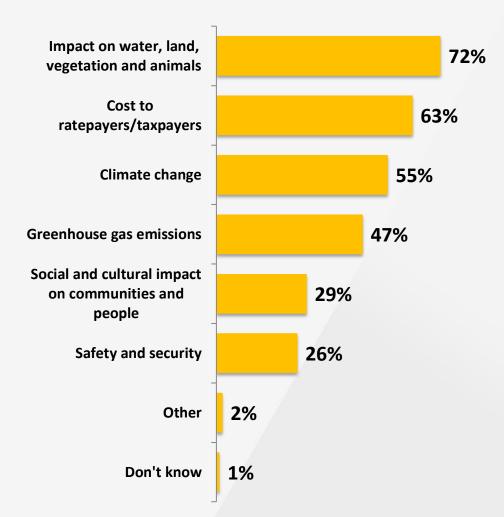
Do you think Manitoba should place more importance, less importance, or about the same importance as it does now on producing energy from ...? (n = 1,000)

- There are a few key differences between demographic groups:
  - Women are more likely than men to say Manitoba should place more importance on solar energy production, but less likely to say more importance should be placed on hydro-electricity.
  - Men, those 65 and older, and those with no post-secondary education are less likely than their counterparts to say more importance should be placed on producing energy from biofuels.
  - Winnipeggers are more likely than non-Winnipeggers to say less importance should be placed on *diesel* energy production.
  - 18 to 29 year olds are more likely than older respondents to say *tidal* energy production should have more importance placed on it.
  - Those with a university degree or higher are most likely among educational groups to say there should be less importance on diesel.

# Considerations for energy production decision-makers

What are the three most important reasons decision-makers should consider when deciding about the sources of energy production for Manitoba? (n = 1,000) NOTE: Respondents could give more than one response; therefore, percentages will sum to more than 100%.

- Manitobans feel that the three most important considerations when making energy production decisions should be impact on water, land, vegetation and animals (72%), cost to ratepayers/taxpayers (63%), and climate change (55%), followed closely by greenhouse gas emissions (47%).
- It should be noted that a number of respondents mentioned the connection between climate change and greenhouse gas emissions, and that they should be considered with equal importance.
- Men, those 30 and older, non-Winnipeggers, and home owners are all more likely than their counterparts to say cost to ratepayers/taxpayers should be one of the most important considerations.

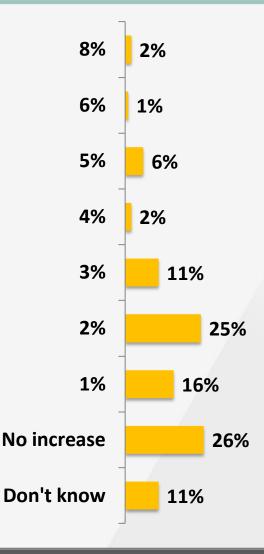




## **Electricity rate increase**

Thinking specifically about your electricity bill, if electricity rates were to increase next year, how much of an increase would you consider reasonable and affordable for your household? (n = 1,000)

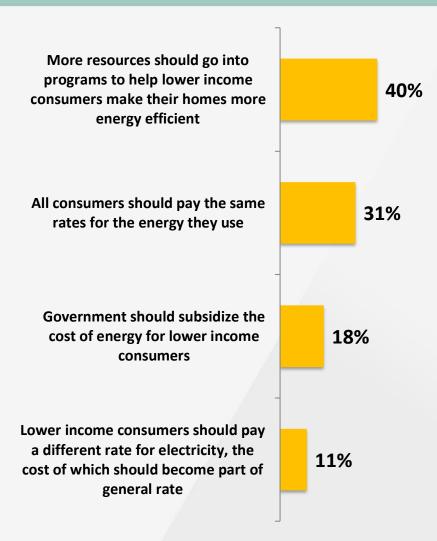
- About 63% of Manitobans say that some type of electricity rate increase would be reasonable, with an overall average increase of 1.7%, which is slightly below the rate of inflation in Manitoba (2.3%).
- About 1 in 4 Manitobans (26%) disagree with any rate increase, while another 11% were unsure.
- Winnipeggers, those in households making at least \$75,000, and those with at least some post-secondary education are more likely than their counterparts to consider some type of electricity rate increase as reasonable and affordable.



## Difficulty paying electricity bill

Thinking about those consumers who have difficulty paying their electricity bill, which of the following would you recommend? (n = 1,000)

- About 7 in 10 (69%) Manitobans believe there should be some type of support for consumers who have difficulty paying their energy bill, with the most common being more resources should go into programs to help lower income consumers make their homes more energy efficient (40%).
- About 31% believe that all consumers should pay the same rates for the energy they use.



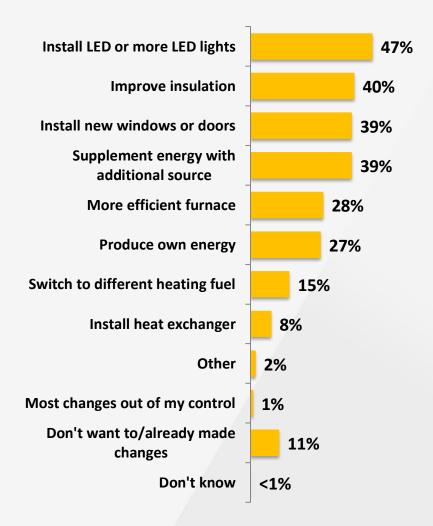
## **FUTURE ENERGY USE**

### Future home energy use

What changes would you like to make in your home energy use in the next 10 years? (n = 1,000)

NOTE: Respondents could give more than one response; therefore, percentages will sum to more than 100%.

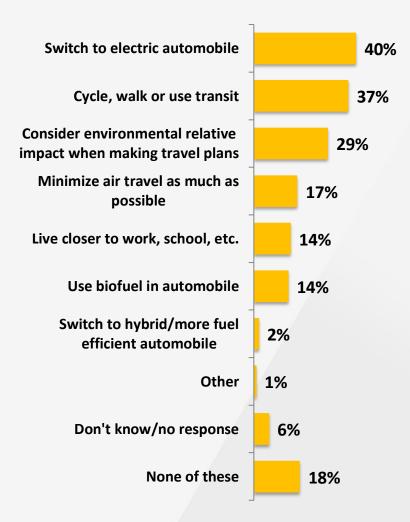
- Given the ease and cost efficiency, it is not surprising that installing LED or more LED lights (47%) is the most commonly mentioned change Manitobans would like to make in their home energy use.
- Other common responses were *improve* insulation (40%), install new windows or doors (39%), and supplement energy with an additional energy source (39%).



### Future transportation energy use

What changes would you like to make in your transportation energy use in the next 10 years? (n = 1,000) NOTE: Respondents could give more than one response; therefore, percentages will sum to more than 100%.

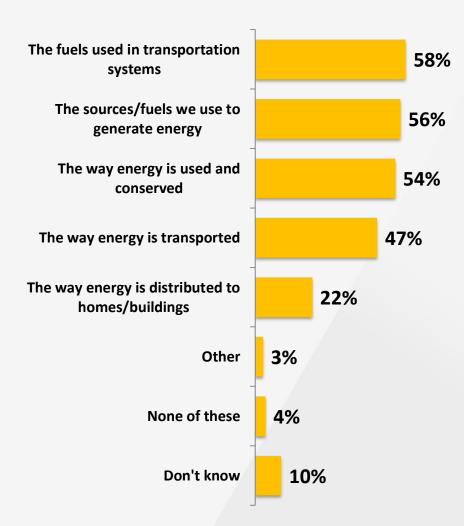
 When asked what changes they would like to make in their transportation energy use over the next 10 years, Manitobans most often mention switch to an electric automobile (40%) or cycle, walk or use transit rather than using an automobile (37%).



### Future energy use strategy

Thinking about your community, neighbourhood, and the province as a whole, which of the following systems would you like to see changed as part of an energy use strategy over the next 10 years? (n = 1,000) NOTE: Respondents could give more than one response; therefore, percentages will sum to more than 100%.

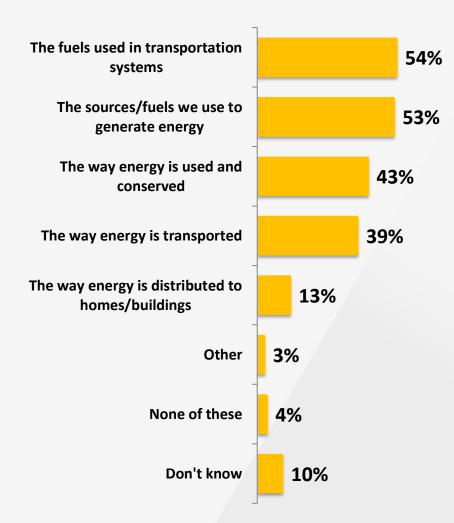
- Of the five options listed, Manitobans appear to place near identical desire for change in the fuels used in transportation systems (58%), the sources/fuels we use to generate energy (56%), and the way energy is used and conserved in public spaces, buildings, and roadways (54%) in terms of future energy strategy.
- Manitobans appear to be less concerned with changing the way energy is distributed to our homes and buildings (22%).



## Importance of energy systems

Which of the following would you say are the three most important changes that should be made as part of an energy use strategy for Manitoba over the next 10 years? (n = 1,000) NOTE: Respondents could give more than one response; therefore, percentages will sum to more than 100%.

- Two aspects seem to be the most important change for Manitoba – fuels used in the transportation systems (54%) and the sources/fuels we use to generate energy (53%).
- This is followed by the way energy is used and conserved (43%) and the way energy is transported (39%).

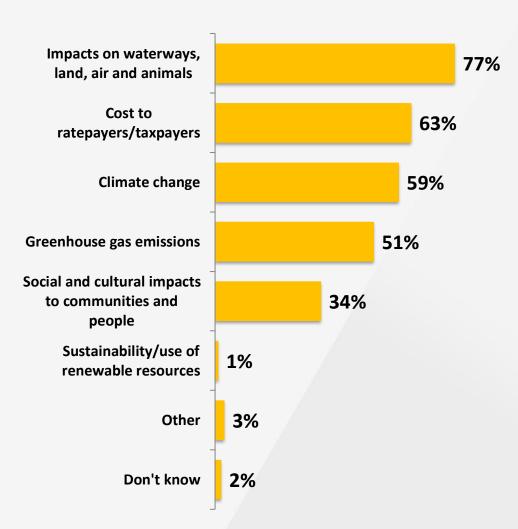


## Considerations for future energy use strategy

From the following list, which are the three most important considerations for decision-makers when making decisions about Manitoba's future energy use? (n = 1,000)

NOTE: Respondents could give more than one response; therefore, percentages will sum to more than 100%.

 Very similar to energy production considerations, Manitobans feel that the three most important considerations when making decisions about future energy use should be impacts on waterways, land, air and animals (77%), cost to ratepayers/taxpayers (63%), and climate change (59%), followed closely by greenhouse gas emissions (51%).

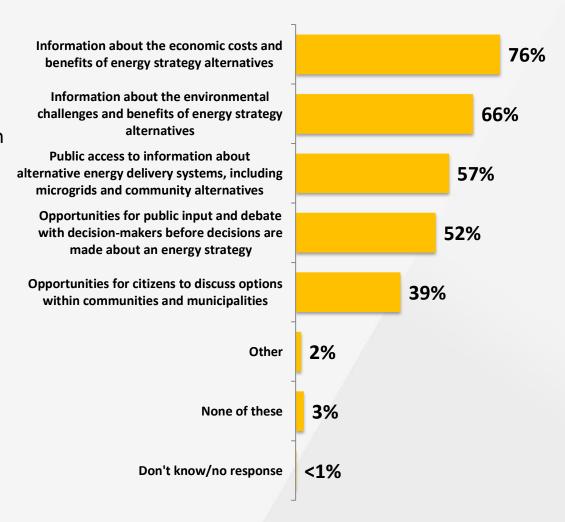


## Future energy use decision making

Which of the following do you think would help Manitoba make important decisions in energy use for the future? (n = 1,000)

NOTE: Respondents could give more than one response; therefore, percentages will sum to more than 100%.

 Results show that Manitobans feel that having access to information is most helpful in making important decisions in energy use, as the most common responses had to do with information about economic costs and benefits (76%), environmental challenges and benefits (66%), or alternative energy systems (57%).

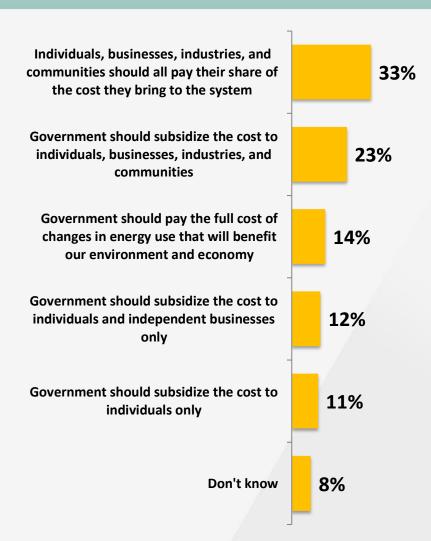


## **COST OF CHANGES**

## Responsibility of costs

Who should be responsible to pay the cost of changes in energy use in our homes, communities, and the province as a whole? (n = 1,000)

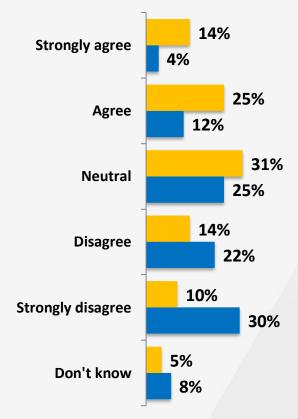
- About 1 in 3 (33%) Manitobans feel that those using energy should be the ones fully responsible for paying for changes in energy use, with no help from the government.
- Conversely, about 59% believe the government should be responsible for at least some of the costs, with the most common response in this area being subsidizing the cost to individuals, businesses, industries, and communities (23%).
- Manitobans under 65 are more likely than older respondents to say the government should be responsible for the cost of changes in energy use.



### Cost of changes

Agreement rating: The cost of changes to the energy use of Manitobans over the next 10 years should be paid for by consumers, businesses, industry, and communities through the rates they pay on their energy bills. (n = 1,000) Agreement rating: The cost of changes to the energy use of Manitobans over the next 10 years should be paid for by Manitobans through their income taxes. (n = 1,000)

- Manitobans are more likely to agree that the cost of changes to energy use over the next 10 years should be paid for through rates on energy bills (39%) versus through income tax (16%).
- Men and those with at least some postsecondary education are more likely than their counterparts to agree that changes in energy use should be paid for through rates on energy bills, while those who rent their homes are more likely than those who own to agree they should be paid for through income tax.



- Paid by consumers, businesses, industry, and communities through energy bills
- Paid by Manitobans through income tax

# Tab 2

From: CAC Manitoba <<u>cacmb@mts.net</u>>
Date: October 15, 2020 at 5:08:00 PM CST

To: Brad Wall

Subject: Thank you and follow up for meeting with CAC Manitoba on October 2nd

#### Mr. Wall:

On behalf of CAC Manitoba, we thank you very much for taking time to both hear, and discuss, our organizations' thoughts and concerns regarding your review of the Keeyask and Bipole III projects in Manitoba. We appreciated hearing your thoughts and views on the issues as well. You kindly offered us the opportunity to follow up with more thoughts or information if we wished.

One of the topics we covered in our discussion was the idea of government setting Crown utility rates for ratepayers. As we hope we made clear, we are strongly **not** in favour of that approach. Attached for your consideration are two documents regarding some of Manitoba's history with the issue of independent oversight versus government rate setting, specifically Premier Filmon's decision in the late 1980's to legislate that responsibility AWAY from government, and some of the reasons for it.

Thank you again for your time and interest in our concerns.

All the best,

Jacqueline Wasney Gloria Desorcy CAC Manitoba

--

CAC Manitoba 21-222 Osborne Street South Winnipeg, MB R3L 1Z3

Info@<u>CACManitoba.ca</u> 204-284-1876

# Tab 2A



### Consumers' Association of Canada Association des consommateurs du Canada Manitoba

#### <u>Independent rate-setting in Manitoba</u>

Since the late 1980s, the rates charged for public auto insurance in Manitoba have been reviewed by the Public Utilities Board every year in a rigorous, evidence-based process.

This independent oversight protects Manitobans from rates that are too high, that change unpredictably, or that aren't high enough to keep MPI around for future Manitobans.

It hasn't always been this way – the Public Utilities Board was given this responsibility following a particularly dark period in the history of Manitoba's Crown Corporations.

Manitoba Public Insurance spent the 1980s plagued by low profits, poor operational efficiency and significant losses (\$62.5M in 1987 alone). A government Commission set up in response made two key findings:

- MPI's financial situation was deteriorating quickly,<sup>2</sup> and
- Increased political influence over MPI's rates had eroded public trust.<sup>3</sup>

According to then-Minister of Finance Clayton Manness, the same was true of all of Manitoba's Crown corporations.<sup>4</sup>

In response, the provincial government at the time led by then-Premier Gary Filmon, took action to "[restore] public confidence in Autopac" and all Crown Corporations.

From that point on, all Crown corporations were "mandated to appear before Public Utility Boards at any consideration of a rate change." The Public Utilities Board would provide "independent third-party approval and the regulation of Hydro, Telephone and Autopac rates," giving consideration to both financial and "compelling social policy factors." The government "[placed] Crown corporations at arm's length from Government by separating management from accountability" in an effort to ensure that they were "depoliticized". 10

<sup>3</sup> Judge Robert Kopstein, *supra* note 1, "Position Paper No. 3 Improving Autopac Ratemaking and Coverage", at 54-55, "Position Paper No. 1: Towards Greater Accountability for Autopac" at 30.

<sup>&</sup>lt;sup>1</sup> Judge Robert Kopstein, Commissioner, Autopac Review Commission (1988), ch 7 at 23.

<sup>&</sup>lt;sup>2</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> Manitoba, Legislative Assembly, Hansard, 34th Leg, 1st Sess, Vol 72 (November 4, 1988) at 2803 (Clayton Manness).

<sup>&</sup>lt;sup>5</sup> Government of Manitoba, "Government Takes Aim at Autopac Restoration" (News Release), 3 November 1988, online: https://news.gov.mb.ca/news/archives/1988/11/1988-11-03-government takes aim at autopac restoration.pdf.

<sup>&</sup>lt;sup>6</sup> Manitoba, Legislative Assembly, Hansard, 34th Leg, 1st Sess, Vol 72 (November 4, 1988) at 2806 (Clayton Manness).

<sup>&</sup>lt;sup>7</sup> Ibid.

<sup>&</sup>lt;sup>8</sup> Ibid.

<sup>&</sup>lt;sup>9</sup> *Ibid* at 2808.

<sup>&</sup>lt;sup>10</sup> *Ibid* at 2805.

# Tab 2B

## Manitoba



Information Services

Phone: (204) 945-3746

Room 29 Legislative Building Winnipeg, Manitoba, CANADA R3C 0V8 News Service

Date:

November 3, 1988

39-88

GOVERNMENT TAKES AIM AT AUTOPAC RESTORATION

Initiatives Based on 27 Review Recommendations

The Manitoba government has mapped out a wide range of policy and legislative initiatives, to be implemented immediately, in an effort to begin to put Autopac back on the road to recovery.

"Nothing is more crucial to Manitobans than restoring public confidence in Autopac," said the Minister responsible for the Manitoba Public Insurance Corporation Glen Cummings. "I believe these actions are an important first step in that process."

The plan, based on the report of the Autopac Review Commission, includes immediate acceptance of 27 of Commissioner Judge Robert Kopstein's recommendations. The remainder are under active review. Some require decisions by Cabinet while others, relating to administration or management, will be dealt with by the board of directors of MPIC.

Highlights of the government plan include:

- . Enactment of legislation requiring MPIC to submit, for approval, its rate-making policies and practices to the Public Utilities Board (PUB) annually beginning with 1989 rates. This move goes a step further than Judge Kopstein's recommendation of reviewing rates retroactively.
- . Granting of authority to the board of directors of MPIC to finalize all rate changes, subject only to approval by the Public Utilities Board. This will guarantee that the Manitoba government will not be able to interfere in the rate-setting process.
- . Enacting legislation to ensure the board of MPIC has clear authority to direct the operations of the corporation, subject to clearly identified government directives.
- . Amendment of the MPIC Act to preclude the appointment of the minister responsible as chairperson of the board.
- . Repealing the authority of the Public Investment Corporation of Manitoba to prevent it from "undermining the MPIC board of directors."

- . Monitoring and assessing the expected ruling by the Supreme Court of Canada on the constitutionality of restricting access to the court which is what a pure, no-fault automobile insurance plan would do. As recommended by Judge Kopstein, if the decision leaves doubt, a further opinion will be sought from the Manitoba Court of Appeal.
- . Development of a program to keep elected officials informed about Autopac developments.
- . Taking measures to ensure that hazardous written-off vehicles cannot be registered unless approved by the safety inspection unit.

"We have made every effort to ensure that Autopac operates independently, without political interference," Cummings said. "I am certain the board will handle its management decisions with the same sense of responsibility."

Last February, the Autopac Review Commission was mandated to solicit the views of Manitobans and to carry out research on the most appropriate ways through which MPIC can provide low-cost, high-quality automobile insurance on a continuing self-sustaining basis.

The two-volume, 800-page report contains recommendations directed at both government and the corporation.

## APPENDIX C: NPV REFERENCE SCENARIO INPUTS AND ASSUMPTIONS

**KEY ASSUMPTIONS - REFERENCE SCENARIO** 

Economic Evaluation Inputs	Reference Scenario Assumption (See Appendix 9.3 - Economic Evaluation Documentation)	Appendix Reference
Electricity Export Revenue	<ul> <li>Adjusted 2012 electricity export price forecast</li> </ul>	• Section 1.5.1.3, Appendix 9.3
	<ul> <li>Proposed and existing export sale</li> </ul>	
	contracts	• Section 1.6, Appendix 9.3
Power Purchases (Import	Adjusted 2012 electricity export	• Section 1.5.1.3, Appendix
Cost)	price forecast	9.3
	Generation Planning Criteria	Appendix 4.1
Capital Costs – generation	Base estimate in 2014\$	Section 3, Appendix 9.3
and transmission	• Real escalation applied to hydro	• Section 2.1.3, Appendix
	and natural gas-fired generation	9.3
Fuel Costs	Water rental costs	Section 3, Appendix 9.3
	Natural gas fuel costs associated	Section 3, Appendix 9.3
	with Manitoba generation	
Net Load	• 2012 Electric load forecast, base	Appendix C
	forecast	
	• 2012 base DSM Forecast	Appendix E
CDN/U.S. Exchange Rate	• 2012/13 consensus forecast of	Appendix F
	exchange rates	
Discount Rate	Real weighted average cost of	Section 1.4, Appendix 9.3
	capital = 5.05%	
Total Study Life	• 2012 to 2090	Section 1.2, Appendix 9.3

Source: Manitoba Hydro, NFAT Submission, Chapter 9: Economic Evaluations – Reference Scenario, p. 10 [Appendix A, Tab 90].

### APPENDIX D: TABLES SUMMARIZING ACCOUNTS OF THE MA-BCA

SUMMARY OF MULTIPLE ACCOUNT FRAMEWORK

Account	Purpose	Analysis	Indicators
Market Valuation	Net benefit to Manitoba Hydro and project partners.	Incremental revenues from surplus sales less incremental capital and O&M expenditures.	Present value of net revenues or cost (market valuation of investment).
Manitoba Hydro Customer	Consequences for customers in short to medium and long term.	Rate increases required to recover costs and meet MH financial targets.  System reliability.	Average annual and cumulative rate increases over the planning period.  Load carrying capability and cost of expected unserved load.
Manitoba Government	Net benefit to taxpayers.	Incremental government net revenues.  Amount of additional Manitoba Hydro debt guarantee.	Present value of incremental revenues to government, net of incremental costs (including consideration of risk of debt guarantee).
Manitoba Economy	Consequences for the economy.	Employment generated and incremental income earned.	Present value of incremental income.
Environment	Consequences for emissions and natural and bio-physical effects.	Impact on GHGs in Manitoba and elsewhere. Manitoba CAC emissions Biophysical impacts.	Present value of social cost of Manitoba GHGs in excess of carbon charge.  Present value of CAC damage costs.  Nature and extent of residual biophysical impacts.
Social	Consequences for aboriginal and non-aboriginal communities.  Other social impacts not addressed elsewhere.	Benefits to project partners. Impacts on affected communities. Value people place on assets remaining at end of planning period.	Nature and significance of partner benefits.  Nature and extent of residual community impacts.  Potential bequest value of remaining assets.
Risk	Nature and significance of key assumptions.	Range of possible consequences. Risk mitigation potential.	Probability distribution of system net revenues and rates.

Source: Manitoba Hydro NFAT Submission, Chapter 13: Integrated Comparisons of Development Plans, p. 16 [Appendix A, Tab 97].

#### MARKET VALUATION OF PREFERRED AND ALTERNATIVE PLANS

	Preferred Development Plan	K19/G24/ 250MW	K22/Gas	All Gas
Incremental capital exp.	7,373.9	3,812.1	3,338.0	1,158.9
Less: residual asset value (relative to all gas)	[1,933.3]	[804.6]	[849.6]	0.0
Fuel exp (excl tax)	307.7	856.3	767.6	1,151.2
Imports	971.0		847.7	1,030.9
O&M, other (excl tax)	2,220.5	2,227.6	2,170.3	2,171.2
Taxes and carbon charge	3,008.1	2,729.8	2,676.7	2,445.2
Total Expenditures	11,947.9	9,714.1	8,950.7	7,957.4
Firm export sales	4,513.6	2,685.1	1,606.0	1,331.7
Spot / opportunity sales	4,818.5	4,430.2	4,458.4	3,355.8
Total Revenues	9,332.1	7,115.3	6,064.4	4,687.5
Net Cost	2,615.8	2,598.8	2,886.3	3,269.9
Difference from Development Plan	0	(17.0)	270.5	654.1

NFAT REFERENCE SCENARIO ASSUMPTIONS (2014 PRESENT VALUE IN MILLIONS OF 2014\$)

Source: Manitoba Hydro NFAT Submission, Chapter 13: Integrated Comparisons of Development Plans, p. 23 [Appendix A, Tab 97].

#### NET BENEFITS TO MANITOBA GOVERNMENT

	Preferred Development Plan	K19/G24/ 250MW	K22/Gas	All Gas
Capital tax	1,457.1	1,202.7	1,188.0	991.9
Water rentals	1,512.4	1,413.3	1,385.6	1,303.4
Total net benefit	2,969.5	2,616.0	2,573.6	2,295.3
Difference from Preferred Development Plan	0	[353.5]	[395.9]	[674.2]

NFAT REFERENCE SCENARIO ASSUMPTIONS (2014 PRESENT VALUE IN MILLIONS 2014\$)

Source: Manitoba Hydro NFAT Submission, Chapter 13: Integrated Comparisons of Development Plans, p. 32 [Appendix A, Tab 97].

**EMPLOYMENT NET BENEFITS FOR PROJECT CONSTRUCTION AND O&M** 

	Preferred Development Plan	K19/G24/ 250MW	K22/Gas	All Gas
Construction – N. Man.	160.7	74.4	62.5	
Construction – S. Man.	20.7	10.8	7.6	4.9
Total Construction	181.5	85.2	70.1	4.9
O&M – N. Man.	26.2	15.3	12.5	
O&M – S. Man.	0.6	7.1	5.6	10.7
Total O&M	26.8	22.4	18.1	10.7
Total Net Benefits	208.3	107.6	88.2	15.6
Difference from Preferred Development Plan	0.0	(100.7)	(120.1)	(192.7)

NFAT REFERENCE SCENARIO ASSUMPTIONS (2014 PRESENT VALUE IN MILLIONS 2014\$)

Source: Manitoba Hydro NFAT Submission, Chapter 13: Integrated Comparisons of Development Plans, p. 41 [Appendix A, Tab 97].

EXTERNAL COST OF MANITOBA THERMAL GENERATION-RELATED GHG EMISSIONS

	Preferred Development Plan	K19/G24/ 250MW	K22/Gas	All Gas	
Estimated social cost of GHG emissions	188.8	472.6	427.6	620.4	
Estimated coal tax and carbon charge payments	38.6	113.8	103.1	149.9	
External Cost of GHG Emissions	150.2	358.8	324.5	470.5	
Difference from Preferred Development Plan		208.6	174.3	320.3	

NFAT REFERENCE SCENARIO ASSUMPTIONS (2014 PRESENT VALUE IN MILLIONS 2014\$)

Source: Manitoba Hydro NFAT Submission, Chapter 13: Integrated Comparisons of Development Plans, p. 46 [Appendix A, Tab 97].

CAC DAMAGE COSTS FROM MANITOBA THERMAL GENERATION IN PREFERRED AND ALTERNATIVE PLANS

	Preferred Development Plan	K19/G24/250MW	K22/Gas	All Gas
Estimated damage cost of NO <sub>x</sub> emissions	13.4	16.9	16.3	18.9
Estimated damage cost of PM emissions	4.1	9.2	8.3	11.9
Total CAC Damage Costs	17.5	26.1	24.6	30.8
Difference from Preferred Development Plan		8.6	7.1	13.3

NFAT REFERENCE SCENARIO ASSUMPTIONS (2014 PRESENT VALUE IN MILLIONS OF 2014\$)

Source: Manitoba Hydro NFAT Submission, Chapter 13: Integrated Comparisons of Development Plans, p. 52 [Appendix A, Tab 97].

## APPENDIX E: NEED ASSESSMENTS FOR LONG-TERM ELECTRICITY PROJECTS AND MAJOR TRANSMISSION LINES

Project	Need Assessment	Need Identified
Hydroelectric Dams		
Site C (BC)	Joint review panel May 2014 report (chapter 15)	<ul> <li>BC Hydro relied on a 20-year load forecast to justify need for the project</li> <li>The NFAT Panel concluded: <ul> <li>"uncertainties necessarily proliferate in long term forecasts";</li> <li>"basing a \$7.9 billion Project on a 20-year demand forecast without an explicit 20-year scenario of prices is not good practice"; and</li> <li>"B.C. will need new energy and new capacity at some point. Site C would be the least expensive of the alternatives, and its cost advantages would increase with the passing decades as inflation makes alternatives more costly," but</li> <li>BC Hydro had "not fully demonstrated the need for the Project on the timetable set forth" (i.e., in the mid-2020s), largely based on understated DSM savings</li> </ul> </li> </ul>
Lower Churchill (NL)	Joint review panel August 2011 report (chapter 4)	<ul> <li>Nalcor relied on a 57-year study period to justify need for the project</li> <li>The NFAT Panel did not take issue with the long-term forecast, but concluded that Nalcor had not shown the project to be the least cost alternative to meet domestic demand to 2067</li> </ul>
Romaine Hydroelectric Complex (QC)	Joint review panel February 2009 report (chapter 2)	<ul> <li>Hydro-Quebec relied on a 29-year forecast period to justify project need</li> <li>It expected that all project output would go to exports until 2020, but it would all be needed within Quebec by 2036</li> <li>The NFAT Panel noted that "additional supply would be required between 2012 and 2017" within the Quebec market</li> </ul>
Eastmain-1-A and Rupert Diversion (QC)	Panel <u>November</u> 2006 report (chapter 4)	<ul> <li>The NFAT Panel relied on a 10-year forecast of Quebec's energy demand</li> <li>The NFAT Panel concluded that Quebec's domestic energy needs would be met in 2014 without the project, but that the project would be justified in the short and medium term for exports</li> </ul>
Wuskwatim (MB)	Department of Fisheries and Oceans <u>October</u> 2005 report (chapter 2)	<ul> <li>Manitoba Hydro relied on a 20-year forecast to justify need for the project</li> <li>It indicated that additional energy would be needed in 2020</li> <li>The project was advanced to allow for additional exports</li> </ul>

Project	Need Assessment	Need Identified
Partial Diversion of the Manouane River (QC)	Department of Fisheries and Oceans <u>July 2002</u> <u>report</u> (chapter 2)	<ul> <li>Rationale for the project was based on a 5-year strategic plan which showed 17.4 TWH of increased demand in Quebec from 1999 to 2004</li> </ul>
Toulnustouc Hydroelectric Facility (QC)	Department of Fisheries and Oceans <u>September</u> 2001 report (chapter 2)	<ul> <li>Rationale for the project was based on a 5-year strategic plan which showed 17.4 TWH of increased demand in Quebec from 1999 to 2004</li> </ul>
Nuclear		
Darlington New Nuclear Power Plant (ON)	Joint review panel August 2011 report (chapter 4)	<ul> <li>The NFAT Panel accepted a 20-year forecast that formed the basis of Ontario's Long Term Energy Plan, which confirmed the need for 2000 MW from new nuclear units at Darlington after 2020</li> <li>The NFAT Panel accepted the need for the project to produce a total of up to 4800 MW to "allow for flexibility for future electricity planning needs"</li> </ul>
Major Transmission Line	s	
Manitoba-Minnesota Transmission Project (MB)	National Energy Board <u>November</u> 2018 report (chapter 5)	<ul> <li>The Board found that there was an economic need for the project based on:</li> <li>a 15-year export sales contract and a 20-year export sales contract;</li> <li>additional exports and imports over the 80-year economic life of the project; and</li> <li>improved reliability over the 80-year economic life of the project.</li> </ul>
East-West Tie Expansion (ON)	Independent Electricity System Operator December 2015 report	The rationale for the project was based on a 20-year demand and supply forecast for the area that would be supplied by the line
Fort McMurray West 500-Kilovolt Transmission Project (AB)	Alberta Electric System Operator 2009 Long Term Plan	The project was designed as critical transmission infrastructure in 2009 based on AESO's 2009 long term transmission system plan, including a 20-year demand forecast
Montana Alberta Tie Ltd. (AB)	Alberta Electric and Utilities Board November 2006 NID	<ul> <li>As a private merchant line, the project was justified based on market "need" for the project</li> <li>The market need was based on two 15-year contracts, a 24-year contract, and two 25-year contracts, as well as other requests for capacity</li> </ul>

## APPENDIX F: ACTUAL EXPORT REVENUES (2007/08 – 2018/19) VS. FORECASTS UP TO 10 YEARS PRIOR<sup>508</sup>

Year	Forecast/				Actua	l Export	Revenu	es (Milli	ions \$) b	y Year			
of IFF	Accuracy	2007/08 \$625M	2008/09 \$623M	2009/10 \$427M	2010/11 \$398M	2011/12 \$363M	2012/13 \$353M	2013/14 \$422M	2014/15 \$384M	2015/16 \$415M	2016/17 \$460M	2017/18 \$437M	2018/19 \$430M
1007	Forecast	181.7											
1997	Accuracy	-71%											
1998	Forecast	176.2	180.7										
1998	Accuracy	-72%	-71%										
1999	Forecast	251.1	256.1	261.3									
1999	Accuracy	-60%	-59%	-39%									
2000	Forecast	338.5	332.9	333.3	331.6								
2000	Accuracy	-46%	-47%	-22%	-17%								
2001	Forecast	427	425	419	439	436							
2001	Accuracy	-32%	-32%	-1.9%	10%	20%							
2002	Forecast	490	504	512	536	540	542						
2002	Accuracy	-21%	-19%	20%	35%	49%	54%						
2003	Forecast	448	480	491	583	621	653	660					
2003	Accuracy	-28%	-23%	15%	46%	71%	85%	56%					
2004	Forecast	446	457	479	539	583	652	670	688				
2004	Accuracy	-29%	-27%	12%	35%	61%	85%	59%	79%				
2005	Forecast	463	463	442	483	535	579	629	645	691			
2003	Accuracy	-26%	-26%	-3.5%	21%	47%	64%	49%	68%	67%			
2006	Forecast	551	496	463	471	481	556	585	604	667	672		
2000	Accuracy	-12%	-20%	8.4%	18%	32%	58%	39%	57%	61%	46%		
2007	Forecast	582	468	416	415	471	537	550	573	636	645	679	
2007	Accuracy	-6.8%	-25%	-2.6%	4.3%	30%	52%	30%	49%	53%	40%	55%	
2008	Forecast		619	546	465	477	498	509	524	624	649	651	800
	Accuracy		-0.6%	28%	17%	31%	41%	21%	36%	50%	41%	49%	86%
2009	Forecast			414	383	554	583	615	590	701	729	742	894
	Accuracy			-3.0%	-3.8%	53%	65%	46%	54%	69%	58%	70%	108%
2010	Forecast				444	461	499	510	529	611	621	646	654
	Accuracy				12%	27%	41%	21%	38%	47%	35%	48%	52%
2011	Forecast					363	341	363	394	469	502	531	554
	Accuracy					0.0%	-3.4%	-14%	2.6%	13%	9.1%	22%	29%
2012	Forecast						369	344	343	380	406	435	441
	Accuracy						4.5%	-18%	-10%	8.4%	-12%	-0.4%	2.6%
2013	Forecast							408	383	362	390	441	448
	Accuracy							-3.3%	-0.2%	-13%	-15%	0.9%	4.2%
2014	Forecast								409	434	450	457	479
	Accuracy								6.5%	4.6%	-2.2%	4.6%	11%
2015	Forecast									395	406	449	474
	Accuracy									-4.8%	-12%	2.7%	10%
2016	Forecast										468	454	432
	Accuracy										1.7%	3.9%	0.4%