FUTURE SUPPLY PLAN
2030 AND BEYOND

What We Heard Report

Stage 1: Getting to Know You

SEPTEMBER – NOVEMBER 2022

SaskPower
Powering our future®

CONTENTS

SUMMARY

What We Did

We're planning how to supply power to Saskatchewan beyond 2030 and have invited our customers to participate. There are five stages in the process – and we're looking for input at each stage. This project is focused on supporting participation from a broad range of customers, without requiring a technical background in electricity. We provided background information about our supply planning process, emissions regulations and introduced short-term supply options.

In Stage 1, we asked customers how they want to participate, what supply options they'd like to learn more about and what opportunities they see for the future. To do this, we conducted online surveys, polls and workshops.

From Sept. 6 to Nov. 15, 2022 we had:

- 13,300 site visits to saskpower.com/engage;
- 450 participants take part in a series of online learning sessions;
- 240 surveys completed; and
- 160 participants attend our visioning workshops.

SUMMARY

What We Heard

Many participants already had views about which generation options they wanted to see applied in the future. For example, some participants were strongly for or against using nuclear power. We observed similar views regarding wind and solar power.

Our customers expect us to lead in this transition, with a desire to see us make the most of available technologies and leverage expertise from established Saskatchewan-based industries.

Cost and reliability of power remain critical for our customers. Our future supply planning process can't lose sight of these core customer needs.

Most participants to date are already interested in our future supply work. Voices underrepresented in the conversation so far include youth, Indigenous communities and a greater share of our customers.

Key themes identified while exploring needs and opportunities included:

- Understanding costs of supply
- Confidence all viable options are considered
- Need for trust and transparency
- Diverging views on nuclear and renewables
- Understanding future impacts
- Equity and fairness
- Urgency and timing of transition
- Focus on efficiency first
- Create economic opportunities
- Leverage our strengths and assets
- Support participation and decentralization
- Be an innovative leader and facilitator
- Strengthen power distribution

SUMMARY

What's Next

Based on what we've heard, key focus areas for Stage 2 include:

1. Create a list of the traits the community wants to see in future supply options. Use the list to see how different future supply solutions compare.
2. Share the cost of the different power options in the province. And explore the long-term implications of supply decisions. For example — waste created, recyclability of materials, etc.
3. Host additional conversations and invite trusted third-party experts to contribute.
4. Share information about new technologies and developing supply options.
5. Increase outreach with a special focus on reaching young and Indigenous people.

Beyond Stage 2, also:

- Investigate interactive tools to allow participants to explore future scenarios independently.
- Consider shared opportunities with early adopter customers. For example — pilot design of demand-side management programs, joint research projects, etc.
- Explore opportunities with other partners to show what the future might look like.

PROCESS

Getting to Know You

Understanding Your Priorities

Exploring Future Power Supply Scenarios

Reviewing the Draft Long-Term Plan

Finalizing the Long-Term Plan

ACTIVITY OVERVIEW

Pre-Engagement Interviews

We interviewed around 25 Saskatchewan organizations or interested community groups before the project launched. We sought advice on the approach and the process.

Online Engagement

We launched saskpower.com/engage as the main hub for project activities and updates. This report includes input taken for the period of Sept. 6 to Nov. 15, 2022.

Online activities included a survey and quick polls, as well as ask a question and submit an idea tools.

Facilitated Sessions

We issued an open invitation to attend a Collaborative Visioning Workshop. We offered residential/farm and commercial/industrial workshops. The content was the same in each workshop but grouping sessions by customer type helped keep participants with similar knowledge together. Sessions were between 90 minutes and two hours. The agenda included:

- Introduction to supply planning
- Previous stakeholder input summary
- Break-out discussion on needs and opportunities

ACTIVITY OVERVIEW

Online Learning Sessions

Five online learning sessions ran in a 60-minute, webinar-type format. Topics included:

- power supply planning
- an introduction to the power grid
- emerging distributed energy technology
- information about nuclear power

Raising Awareness

In July 2022, we ran a province-wide information campaign. We focused on our need to look at all supply options and where people could get more information. This included print, radio, digital advertising and social media. In September 2022, we promoted opportunities to get involved in the project.

We used an e-newsletter to provide updates on progress and participation opportunities.

We stayed in touch with organizations and interested community groups. We asked them to share information with their members.

ONLINE FACILITATED SESSIONS

ACTIVITY OVERVIEW

Open registration was promoted online to attend a series of facilitated sessions.

These sessions were 90-120 minutes in duration. The agenda included introductory content about SaskPower's future supply planning, previous stakeholder input summary and a break-out discussion to discuss needs and opportunities.

Participants were given the opportunity to ask questions to a SaskPower subject matter expert in supply planning.

Session dates: Sept. 12-15, 2022

Total participants: 105

A similar facilitated session was also arranged by the Saskatchewan Chamber of Commerce and hosted with SaskPower. This sessions was 120 minutes in duration.

Session date: Oct. 19, 2022

Total participants: 28

The final set of facilitated sessions was timed around harvest for the agricultural community. We hosted two, 120 min sessions. We recruited participants in order to ensure we heard from a diverse representation of this segment.

Session dates: Nov. 3-4, 2022

Total participants: 25

SUMMARY OF KEY NEEDS

- Understanding costs of supply
- Confidence all viable options are considered
- Need for trust and transparency
- Diverging views on nuclear and renewables
- Understanding future impacts
- Equity and fairness
- Urgency and timing of transition

SUMMARY OF KEY NEEDS

Understanding costs of supply

Costs of supply were a commonly-mentioned area where participants wanted more information. This extended beyond a basic, short-term view of costs to a full life-time cost analysis of all associated costs.

The ability to understand all the costs from construction, operation, maintenance, costs of fuel supply, facility retirement, etc. over the planned lifetime of the facility is of interest.

"People on fixed income, who cannot afford inflationary costs. No one who is hungry cares about global warming."

Confidence all viable options are considered

Many participants were curious about the supply and storage options that were being evaluated by SaskPower in this process.

This applied, in particular, to energy storage options, where various examples of innovative storage options from around the world were mentioned.

Given the opportunity in Saskatchewan for wind and solar power generation, energy storage to leverage that capacity is an important aspect of the supply discussion.

Some projects and jurisdictions were commonly cited, especially areas in Europe that have already undergone major transitions.

SUMMARY OF KEY NEEDS

Need for trust and transparency

Participants wanted to know that their input would make a difference, and that decisions had not already been made about the future.

There was also a desire to understand how future supply decisions would be approached by SaskPower and what the role of elected officials would be in directing the company.

"Be more open about your evaluation process and the cost/benefit/risk of all options, not just projects you have already adopted and wish to promote. Without this, it is hard to view your efforts outside the 'party line' of government."

Diverging views on nuclear and renewables

As possible supply options, nuclear power and renewables came up most often as either the most, or least, desirable supply options.

For some participants, nuclear power was associated with being particularly expensive or risk-prone.

Concerns with renewables often focused on their cost-effectiveness and long-term effects of non-recyclable components.

In both cases, a segment of participants had strong preferences for, or against, these supply options.

SUMMARY OF KEY NEEDS

Understanding future impacts

Having a long-term view of today's decisions was seen as important, especially given the long lifetime of power generation facilities. Generally, there was a desire to avoid creating unnecessary burdens for future generations, especially those that could be anticipated and avoided.

Participants also wanted to better understand what was known about the future impacts of the materials used in renewables i.e. wind turbines blades, solar panels and minerals used in batteries.

Equity and fairness during transition

There was a general recognition that the upcoming transition in supply options could disproportionately impact those with less economic means, especially if power rates increase. These same groups are also less likely to be able to afford new power-saving technology that would allow them to save money by reducing consumption.

It was also noted it was important to engage with youth who will inherit the power supply and to use the opportunity for economic reconciliation with First Nations and Métis communities.

SUMMARY OF KEY NEEDS

Urgency and timing of transition

There were different views on the overall level of urgency around this transition. Some participants would like to see a much more urgent view taken around the need to reduce our emissions and transition from fossil fuel sources.

Regardless of views on the necessity of change, there was a desire to see SaskPower being an innovative leader rather than a follower in this transition.

"The infrastructure for renewable energy and power supply should have been started in earnest 30 years ago. We're now playing catch-up, and that's unfortunate. We've already missed a number of opportunities to invest and train."

"Go nuclear, stop wasting time and money with low-density, expensive, unreliable power generation such as wind and solar."

SUMMARY OF KEY OPPORTUNITIES

- Focus on efficiency first
- Create economic opportunities
- Leverage our strengths and assets
- Support participation and decentralization
- Be an innovative leader and facilitator
- Strengthen power distribution

SUMMARY OF KEY OPPORTUNITIES

Focus on efficiency first

While much of the discussion focused on reducing emissions, many participants called out the need for efficiency and reducing consumption to be the first point of focus.

Programs, tools and information to help customers consume less would be welcomed with SaskPower playing a role in facilitating this change.

"Forward thinking people that are either transitioning to heating their house without fuel or are already doing that."

Create economic opportunities

Aside from the immediate economic opportunities that exist for the workers and communities that host generation facilities, there was also a recognition of the importance of looking at big-picture opportunities to attract investment to Saskatchewan for energy-intensive industries.

"Become the France of Canada and be a powerhouse of nuclear power to export clean energy to Alberta and the U.S."

SUMMARY OF KEY OPPORTUNITIES

Leverage our strengths and assets

Given Saskatchewan's history with mining, oil and gas, there was interest in exploring how that collective experience could be leveraged into new forms of energy generation and storage.

Our abundant natural resources for wind and solar are recognized as valuable assets. Exploring the best way to optimize these supply options in our future power mix will be important. For a contingent of participants, the ideal grid would be powered entirely from renewable forms of power.

While there was little support for solar panels replacing agricultural land use, many farm participants mentioned the availability of land that would be well-suited to this use.

Support participation and decentralization

Many participants mentioned a desire to see more incentives put in place for residential solar installations, similar to the initial version of the residential solar program offered to customers.

In general, there was also a sentiment the future grid should be less centralized than it is today, with more decentralized generation and customers participating more in self-generation.

This was perceived to accomplish simultaneous goals of providing more autonomy for customers as well as improve the overall resilience of the grid with fewer single points of failure.

SUMMARY OF KEY OPPORTUNITIES

Be an innovative leader

There was an expectation that SaskPower play a leadership role in the coming energy transition.

This extended beyond reducing emissions on its own generation facilities to offering programs, incentives and education on how to reduce power consumption.

Many cited that they would be interested in content from SaskPower in terms of how to reduce energy consumption and new power technologies.

Strengthen power distribution

Particularly among participants who farm in rural areas, it was highlighted that there is a lot of work to be done in terms of the last-mile of distribution.

Aging rural lines need replacing and can't support major electrification of farm operations.

As it stands today, there is sometimes insufficient capacity to support farm operations with some farmers generating their own power in peak times to avoid demand charges.

"I believe it's critical to involve everyone in the conversation so that everyone feels heard. However, I don't think the decision-making process around supply options should be democratic – need the experts to build a reliable, affordable grid!"

ONLINE ENGAGEMENT

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How to Participate | Search | SIGN IN | REGISTER

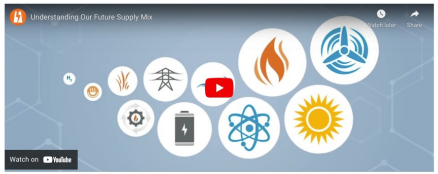
Help Us Reimagine How We Power the Province

Engage in the conversations that matter to you most.

Planning Our Power Future

We're on track to reduce our greenhouse gas (GHG) emissions by at least 50% below 2005 levels by 2030. And now we're working on how to make even deeper cuts to GHG emissions – like achieving a net zero future. There's a wide range of options to get us there and we're considering a few.

Watch the video below to understand our future supply mix:



Participate in Future Power Planning

Share Your Opinions on Powering Saskatchewan

Ask our experts, answer polls or questionnaires, and share your big ideas!

GET STARTED

Do You Have a Big Idea?

We want to hear it. Brainstorm ideas for the power grid of tomorrow.

GET STARTED

Home / Help Reimagine Our Power Future

Help Reimagine Our Power Future

The world around us is changing, and so are we. We're continuing to evolve our long-term plans outlining how we'll generate cost-effective, reliable power that meets greenhouse gas (GHG) emission targets.

Sound simple? It's not! In Saskatchewan, we have a diverse climate and different needs than other provinces. We know one supply option can't do it all. We need to consider all power supply options.

We have important decisions to make about how we power Saskatchewan and we want to hear from you.

There are many ways to participate:

- Complete the survey
- Vote in a quick poll
- Submit an idea and vote on others
- Ask a question to our project team

Survey | Ask a Question | Share an Idea

Survey

Take a few minutes to complete this short survey.

We want to hear about your values and priorities, your thoughts about your own power usage, and how we can help you participate during this process.

This survey should take approximately 5 to 7 minutes to complete.

Survey starts — Finish

All fields marked with an asterisk (*) are required.

1. What type of SaskPower customer are you? *Select all that apply.*
   - Residential
   - Farm
   - Commercial Customer
   - Industrial Customer
   - I am not a SaskPower Customer

2. Where do you live? *
   - Far North
   - North
   - Saskatoon and area
   - East
   - Regina and area
   - West
   - South
   - Outside Saskatchewan

SAVE & CONTINUE

Page last updated: 09 Sep 2022, 07:42 PM

Quick Polls

How quickly should we be transitioning to low and net-zero emissions power generation sources?

- As quickly as possible, even if it costs more to get it done
- Balance speed and cost of transitioning
- Limit costs and go only as quickly as required by regulations

View Results

SUBMIT

Next »

Videos

Project Stages

- **Getting to Know You** — September 2022
- **Setting the Stage** — October 2022 to January 2023
- **Future Power Supply Scenario Exploration** — March 2023
- **Draft Long-term Plan** — June 2023
- **Final Report Released** — Winter 2024

Who's Listening

Lara L.
Manager, Public Engagement & Stakeholder Consultation

Nanette S.
Manager, Supply Planning

Questions or Comments?

publicengagement@saskpower.com
1-855-566-1008 (toll free)

Stay Informed

Receive email updates about planning our power future.

SUBSCRIBE

ONLINE ACTIVITY

During the period of Sept. 6 and Nov. 15, activity on the engagement site was as follows:

- 13,300 site visits
- 9800 visitors
- 1200 max visits per day

Mobile devices were the most common method of access (69%), followed by desktop (20%) and tablet devices (11%).

Analytics from saskpower.com/engage show participation on the project page as follows:

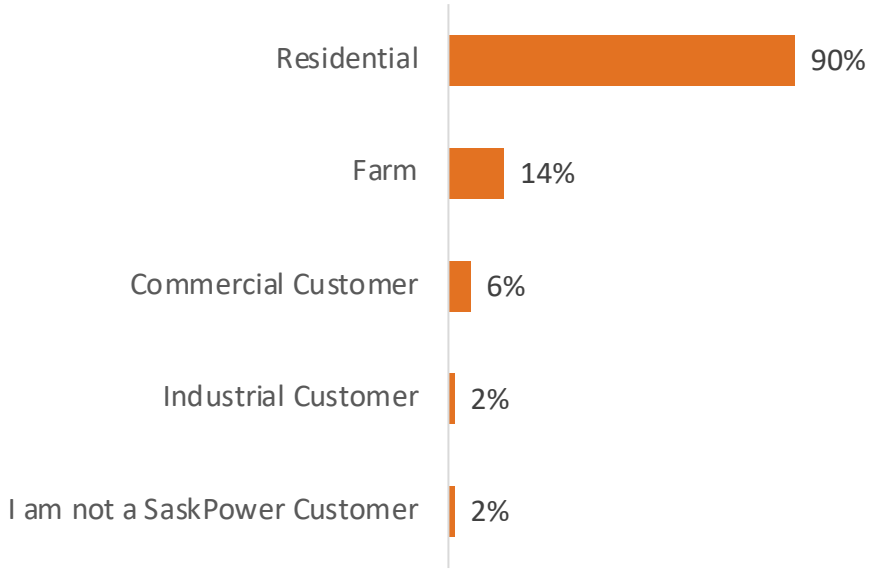
- 240 completed surveys
- 168 poll completions
- 77 ideas submitted
- 11 questions answered publicly, 2 privately

SURVEY RESULTS

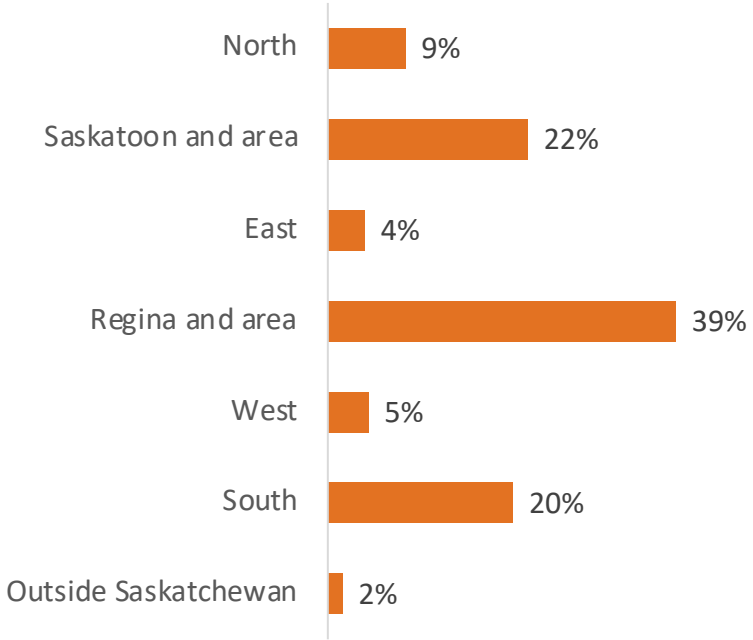
DEMOGRAPHICS

CUSTOMER TYPE AND LOCATION

1. What type of SaskPower customer are you? Select all that apply.

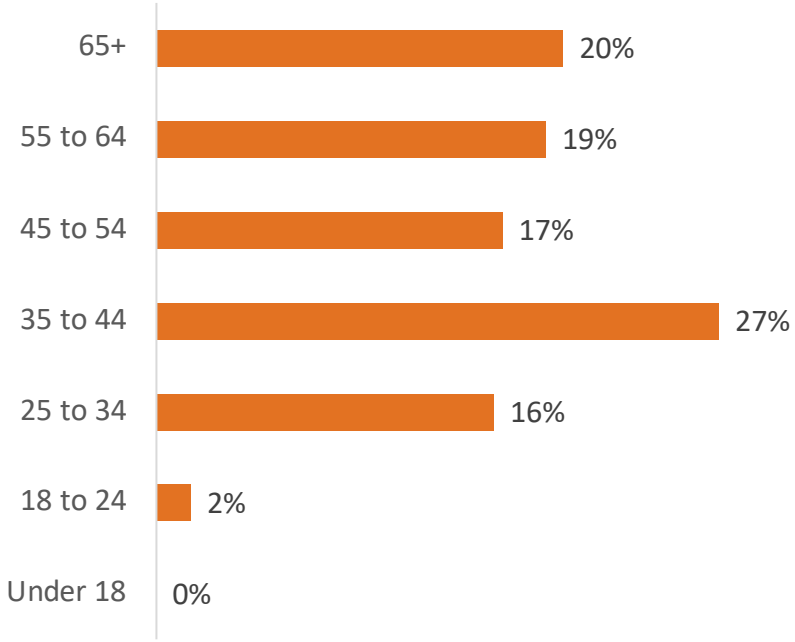


2. Where do you live?

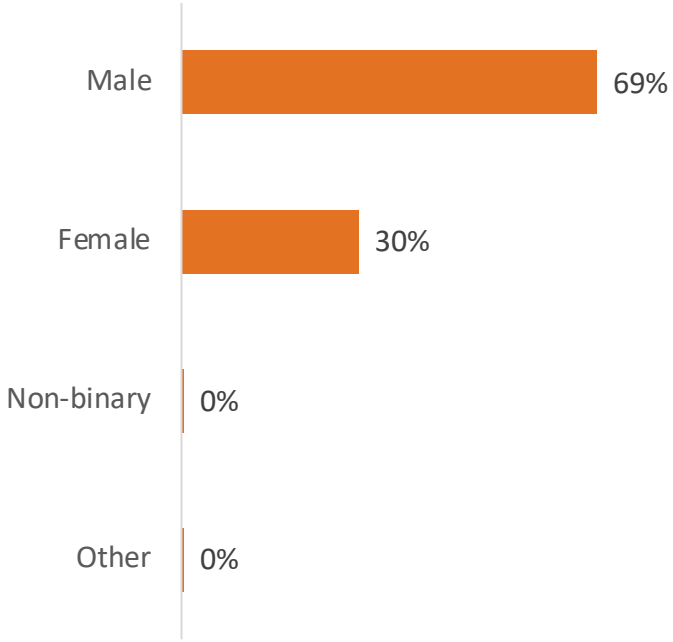


AGE AND GENDER

3. Age

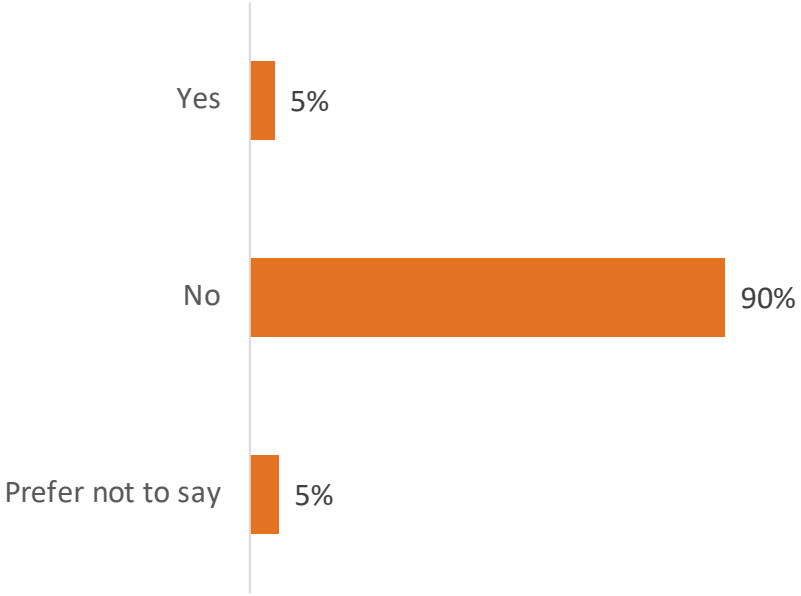


4. Gender

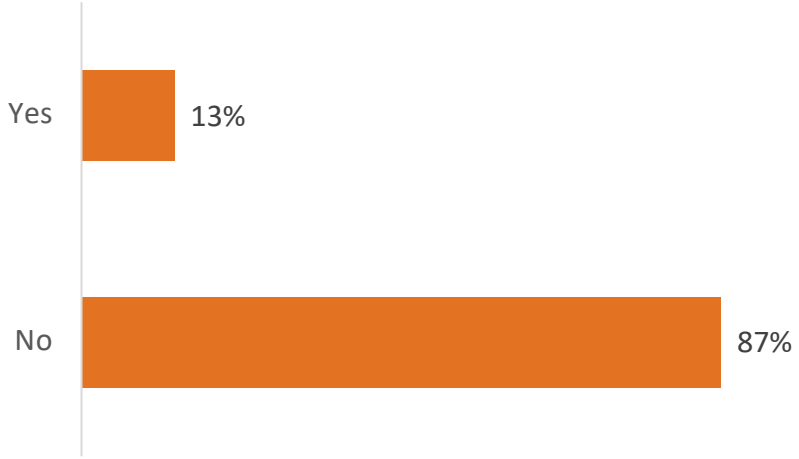


INDIGENOUS OR EMPLOYEE RELATIONSHIP

5. Do you identify yourself as an Indigenous person?



6. Are you, any member of your household, or an immediate family member, currently or previously employed by SaskPower, Saskatoon Light and Power or Swift Current Light and Power?

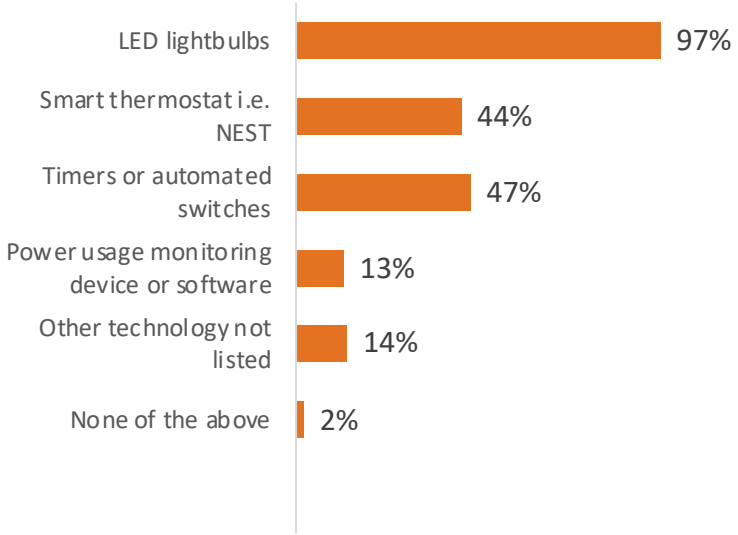


SURVEY RESULTS

POWER USAGE BEHAVIOURS

POWER SAVING BEHAVIOURS

7. Which of the following power-saving technologies have you adopted in your home? Select all that apply.



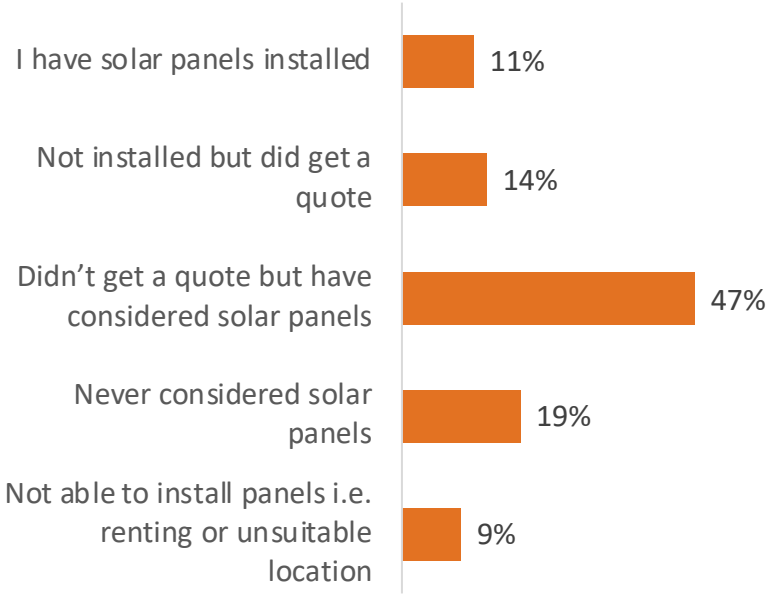
Nearly all respondents have adopted LED lightbulbs in their home.

Adoption of all other technologies was less than 50%, with smart thermostats and timers or automated switches being the most common.

Considering the relatively niche market for power usage monitoring devices and software, the nearly 13% of participants with power monitor devices and software is certainly high compared to a more general consumer population. That said, this correlates with the 12% of participants who reported having solar panels and would likely have a monitoring solution included.

INTEREST IN SOLAR PANELS

8. Have you installed or considered installing solar panels on your home?

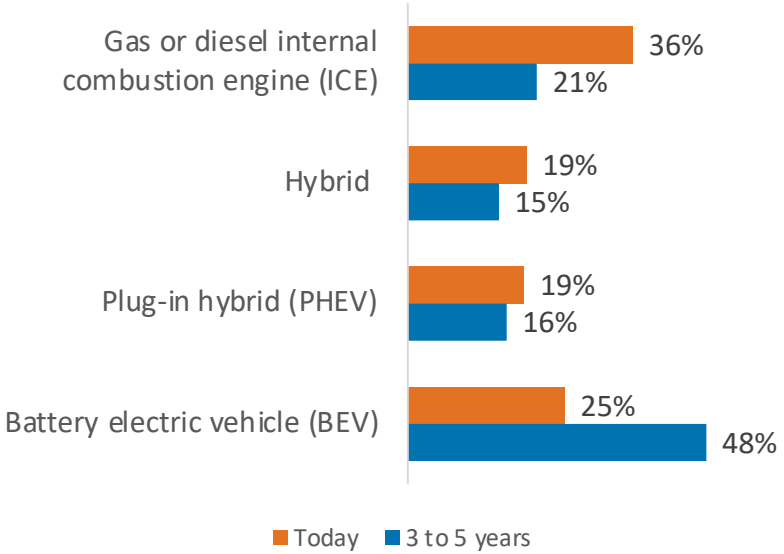


While relatively few (11%) had solar panels installed, there were 61% of respondents who had considered it. Of those, 14% went as far as getting a quote from a supplier.

19% had never considered solar panels and 9% indicated they were unable to install panels due to their rental arrangement or constraints of their location.

PURCHASE INTENT FOR ELECTRIC VEHICLES

9. If you were purchasing a new vehicle today, what type of vehicle would you be most likely to buy?



The same question was asked in order of a vehicle purchase being made today versus in three to five years.

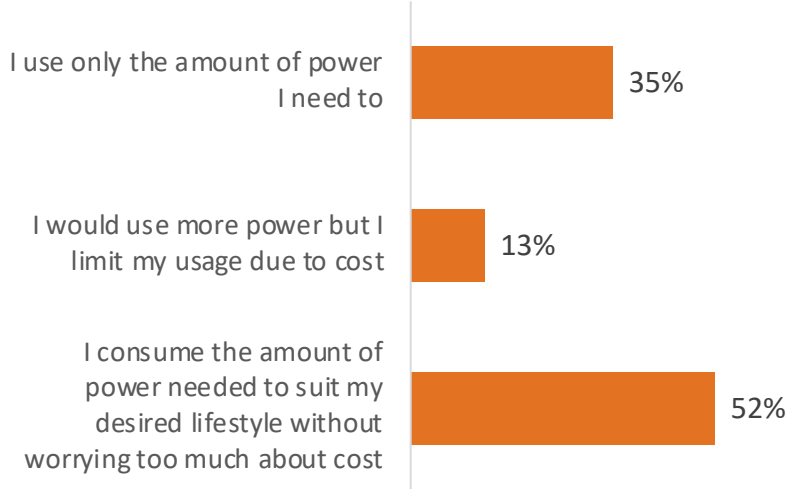
In either time frame, internal combustions engines and battery electric vehicle were the most popular choices individually.

Despite lower scores individually, hybrid variants in combination totaled up to 38% if purchasing today. Viewed slightly differently, when combining plug-in variants of PHEVs combined with BEVs, the total represented 44% of responses.

In a future timeframe, BEVs were significantly more popular than other options at 48%. There was the greatest reduction in likelihood to purchase internal combustion engine (ICE) vehicles compared to hybrid variants in the future.

ATTITUDES ABOUT POWER USAGE

10. Which of the following best describes how you think about your power usage?



Over half of respondents (52%) indicate they prioritize their lifestyle in terms of their power consumption, with less concern for cost.

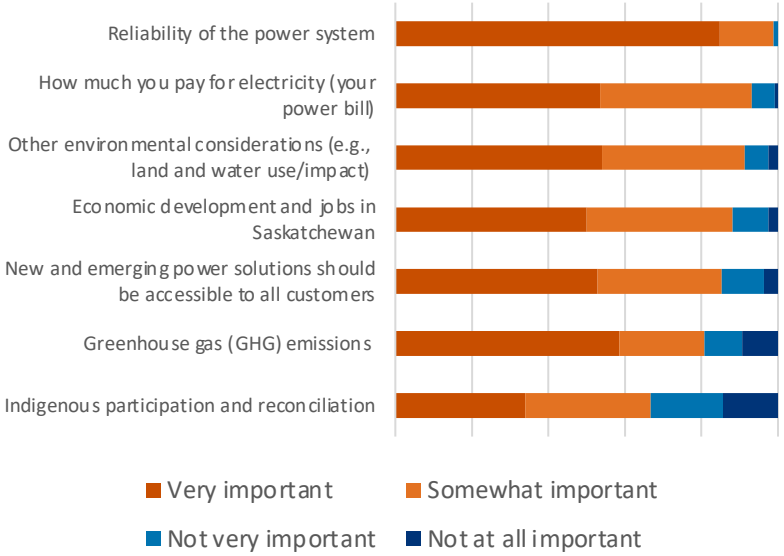
Another 35% indicate they consume only what they need with another 13% indicate they would use more were it not for cost.

SURVEY RESULTS

POWER SUPPLY PRIORITIES

ATTRIBUTES OF POWER SUPPLY

11. Thinking to the future, how important is the following criteria when deciding how power is supplied in Saskatchewan?



Reliability was rated highest overall with 85% indicating it was very important and a further 14% as somewhat important (combined 99%).

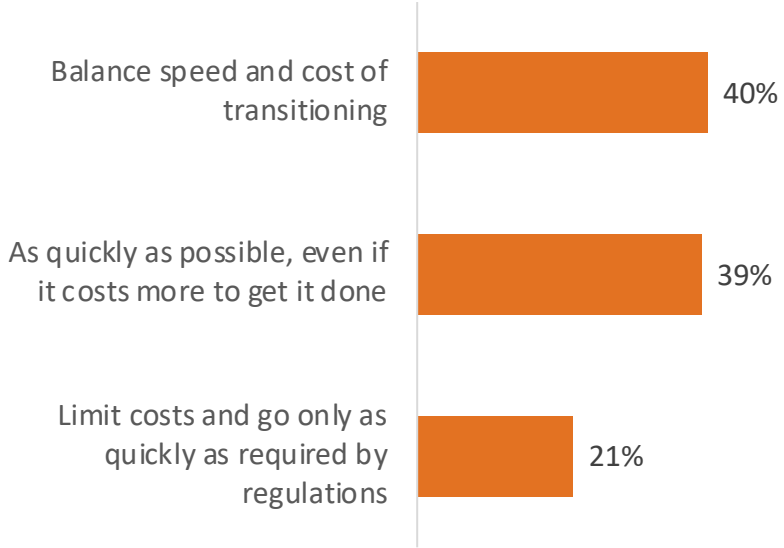
The cost of electricity was rated next in importance, being ranked as very important or somewhat important by 93% of respondents.

Greenhouse gas emissions were ranked second in terms of being deemed very important but lower overall when combining responses of very or somewhat important.

Other environmental concerns i.e. land and water use/impact ranked higher than GHGs in terms when combining responses of very and somewhat important.

SPEED OF TRANSITION

12. How quickly should SaskPower be transitioning to low and net-zero emissions power generation sources?

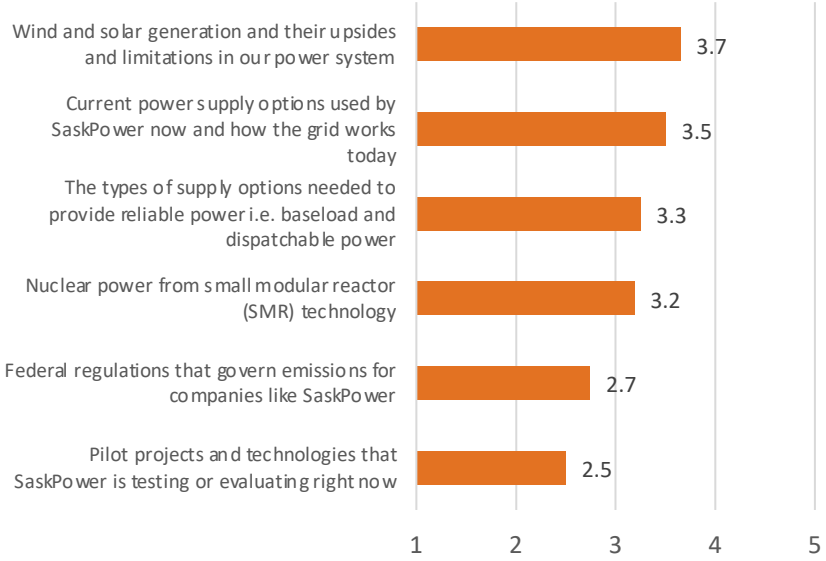


By a narrow margin, the greatest share of survey respondents (40%) favoured a transition that balanced speed and cost. However, nearly as many (39%) were in favour of a faster transition even if it resulted in more expense.

Generally, there was less support (21%) for an approach that was focused on limiting expense and not proceeding any faster that regulations required.

KNOWLEDGE OF POWER SUPPLY OPTIONS

13. On a scale of 1 to 5 with 1 being very poor and 5 being excellent, how would you rate your KNOWLEDGE of the following?



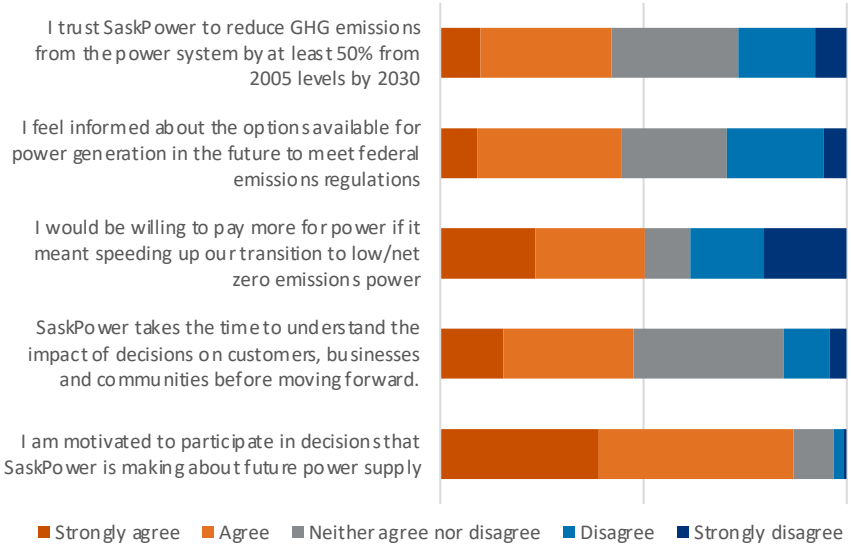
While no topic was rated over a 4 out of 5 in an overall average, participants rated their knowledge of wind and solar the highest (overall score of 3.7) followed by knowledge regarding current supply options in use and how the grid system current operates (3.5).

Knowledge of supply options that support baseload power followed (3.3) and knowledge of nuclear power from SMRs was slightly lower (3.2)

The lowest areas of knowledge pertained to federal regulations (2.7) and knowledge of pilot projects SaskPower is undertaking (2.5).

CURRENT PERCEPTIONS

14. Please state your level of agreement or disagreement with the following questions:



While 42% of respondents either agreed or strongly agreed that they trusted SaskPower to reduce GHGs by 50% of 2005 levels by 2030, 27% disagreed, with a further 31% being neutral.

Responses regarding feeling informed about available options was similar with 45% in agreement and 30% disagreeing.

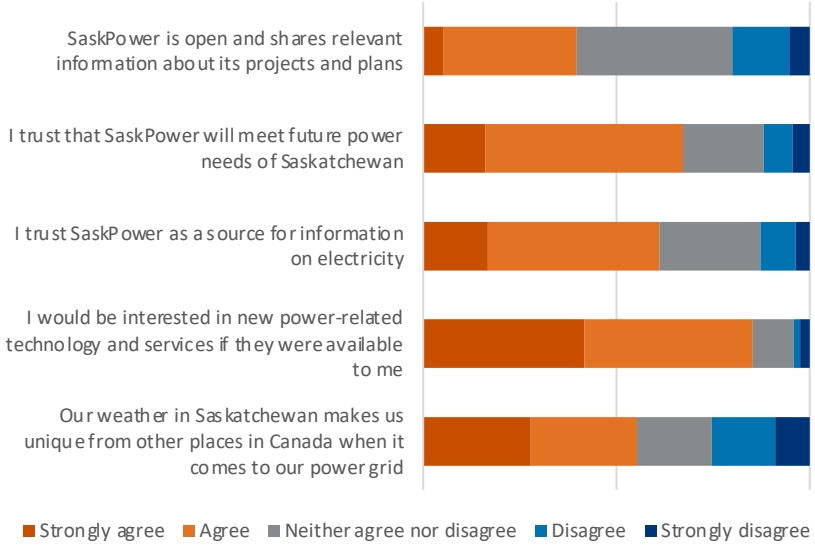
There was the least consensus in terms of being willing to pay more with 50% in agreement and 39% in disagreement.

48% agreed that SaskPower takes the time to understand impacts with 16% in disagreement with 37% being neutral.

87% of respondents indicated they were motivated to participate in decisions regarding future power supply with only 3% in disagreement and 10% neutral.

CURRENT PERCEPTIONS – CONT'D

15. Please state your level of agreement or disagreement with the following questions:



An equivalent number of neutral responses (40%) to the question of SaskPower being open and sharing relevant information compared to those in agreement (40%) with 20% in disagreement.

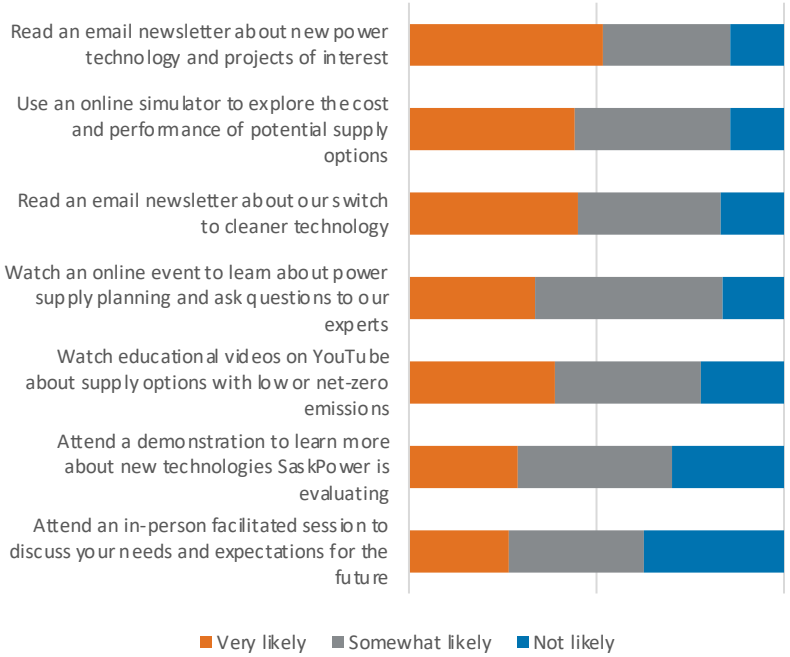
67% trust SaskPower will meet the future power needs of Saskatchewan and 61% trust SaskPower as a source of information on electricity.

85% indicated interest in new power-related technology and services if they were available.

There was less consensus on the extent that Saskatchewan weather makes our circumstances unique in Canada as it relates to our power grid with 55% in agreement, 25% in disagreement and 19% neutral.

DESIRED METHODS OF PARTICIPATION

16. How likely would you be to participate in the following?



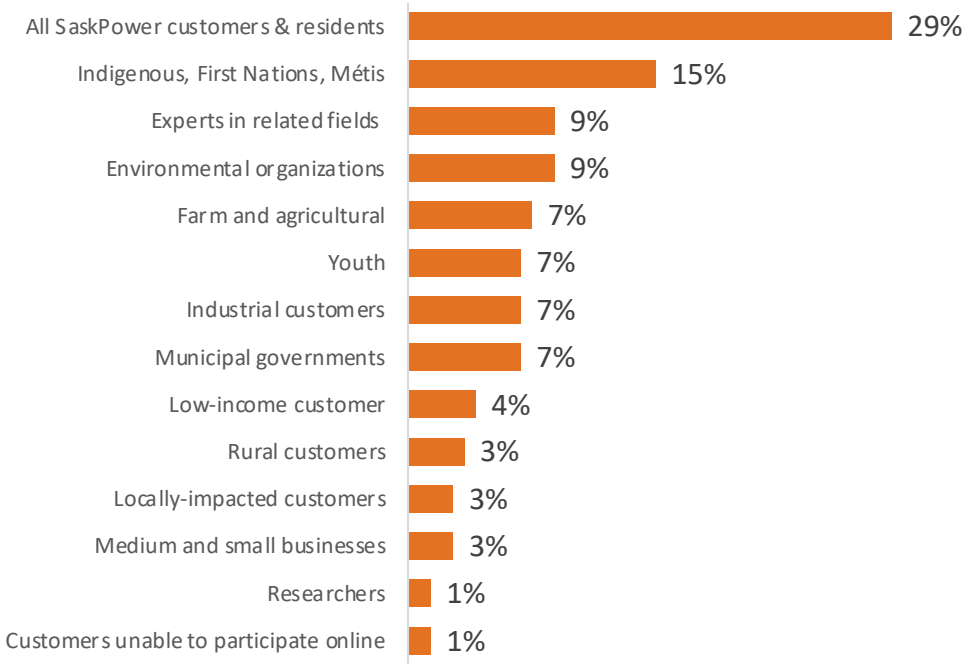
Respondents indicated they were most likely to participate by reading email newsletters or using an online simulation tool to explore potential supply options. For both options, 86% were very likely or somewhat likely to participate using that method.

Live webinars with the option to ask a question, or watching educational videos were slightly less popular options comparatively.

Attending a demonstration and attending an in-person session were the least likely methods of participation. However, all participation options received no less than 27% in terms of being very likely to participate and 63% when combined with being somewhat likely to participate.

KEY AUDIENCES AND STAKEHOLDERS

17. We are working hard to contact and involve a variety of stakeholders throughout this process. Who do you think is critical to involve?



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KEY AUDIENCES AND STAKEHOLDERS

We asked this open-ended question:

"We are working hard to contact and involve a variety of stakeholders throughout this process. Who do you think is critical to involve?"

The most frequent comment related to the importance of broad consultation of all SaskPower customer and residents of Saskatchewan.

Indigenous partners were mentioned frequently as partners, often in connection with renewable projects.

Experts with varying knowledge sets, often in academia, were mentioned as being important to the discussion as sources of objective information.

Environmental organizations, both in terms of change advocates and regulators were mentioned.

Youth were often called out as being those who will inherit this future system and should be involved in determining the future.

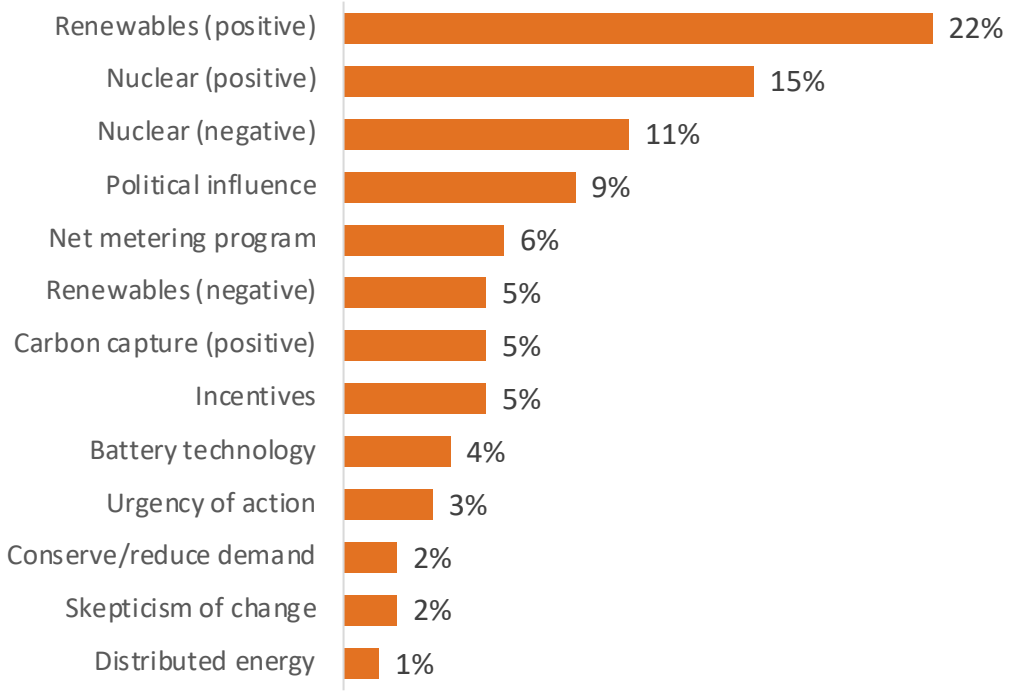
Customers who were low-income and would be adversely affected by cost increases were seen as being particularly affected. Similarly mentioned were those who were not online to participate in engagements like this.

Municipal governments, especially those in areas affected by changes to generation facilities, were mentioned.

150 participants responded to this question. Percentages do not total 100% due to the opportunity to name multiple audiences in a response.

OPEN-ENDED COMMENTS

18. Is there anything else that you wish to share with us specific to our approach to future power planning? (*Responses by theme category)*



OPEN-ENDED COMMENTS

The final question in the survey was open-ended and asked:

"Is there anything else that you wish to share with us specific to our approach to future power planning?"

The most frequent comments were either in support or opposition to a particular generation technology, often addressing both in the same comment.

A desire to see the Net Metering program return to its earlier form and adding incentive programs was also cited.

New battery technology was mentioned, especially in conjunction with renewables.

Support for carbon capture technology was also cited, often for its familiarity, sometimes as a preferable alternative to both nuclear and renewables.

Underscoring the need for action, or that taking action was overdue, was mentioned.

The need for conservation was mentioned in comments as well as the importance of education and energy literacy.

In contrast to comments around urgency, some respondents were skeptical of the need for change or saw it as largely political in nature with skepticism about the importance of adhering to federal regulations.

ONLINE ENGAGEMENT

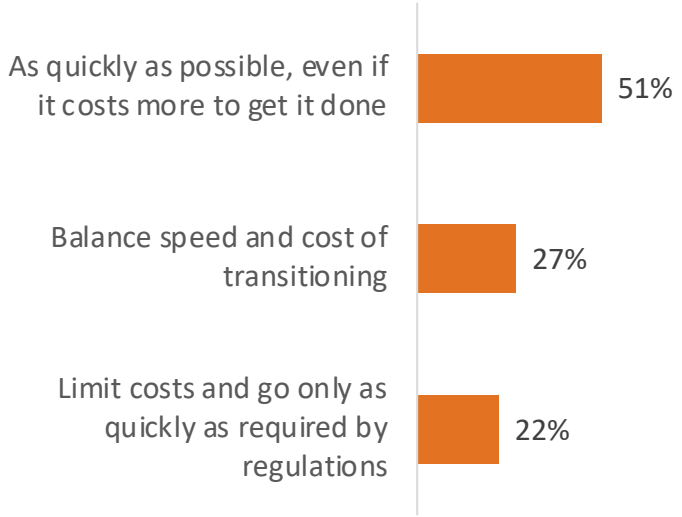
QUICK POLL RESPONSES

Results from: Sept. 6 to Nov. 15, 2022

QUICK POLL RESPONSES

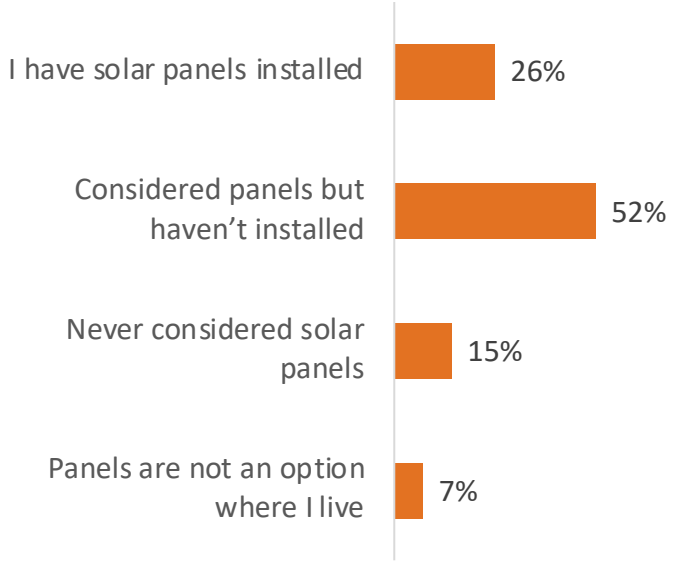
How quickly should we be transitioning to low and net-zero emissions power generation sources?

(85 responses)



Have you installed or considered installing solar panels on your home?

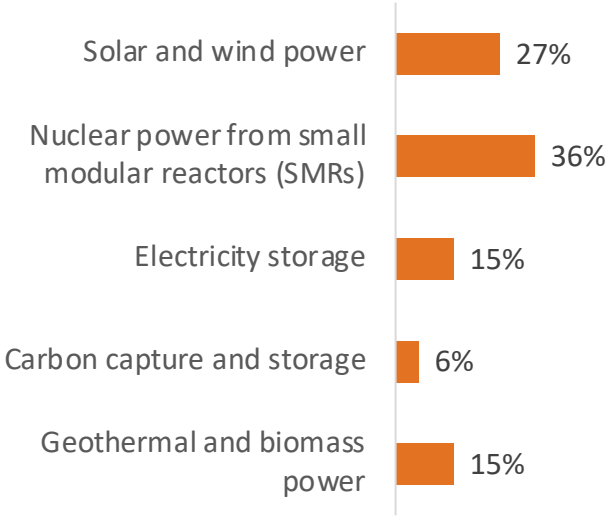
(27 responses)



QUICK POLL RESPONSES

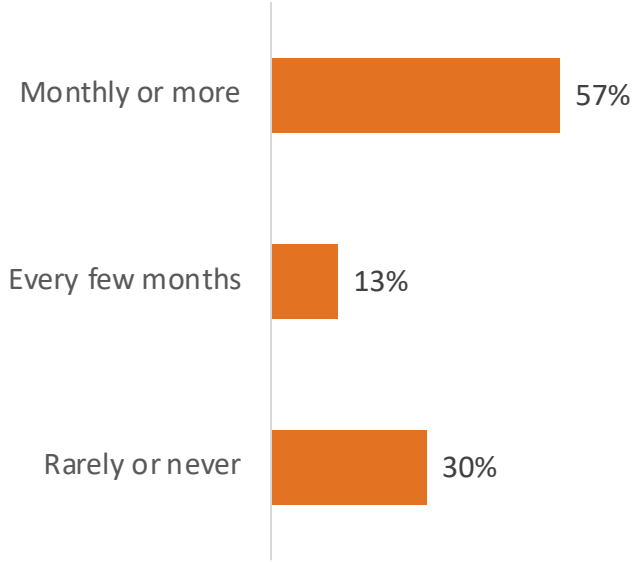
Which of the following generation technologies are you MOST interested in learning more about:

(150 responses)



How frequently do you check your power consumption?

(155 responses)



NEXT STEPS

Recommended Focus Areas for Stage 2

NEXT STEPS

Based on what we've heard, key focus areas for Stage 2 include:

1. Create a list of the traits the community wants to see in future supply options. Use the list to see how different future supply solutions compare.
2. Share the cost of the different power options in the province. And explore the long-term implications of supply decisions. For example — waste created, recyclability of materials, etc.
3. Host additional conversations and invite trusted third-party experts to contribute.
4. Share information about new technologies and developing supply options.
5. Increase outreach with a special focus on reaching young and Indigenous people.

Beyond Stage 2, also:

- Investigate interactive tools to allow participants to explore future scenarios independently.
- Consider shared opportunities with early adopter customers. For example — pilot design of demand-side management programs, joint research projects, etc.
- Explore opportunities with other partners to show what the future might look like.