FUTURE SUPPLY PLAN

2030 AND BEYOND

What We Heard Report

Stage 2, Understanding Your Priorities

November 2022 – May 2023

SaskPower
Powering our future®

CONTENTS

SUMMARY

SUMMARY

Project Information

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.

September – November 2022

In Stage 1, we started engaging with customers by asking them how they want to participate, what supply options they'd like to learn more about and what opportunities they see for the future.

November 2022 – May 2023

In Stage 2, we shared information about the supply options we're considering. We also dug deeper into customer's values and priorities when evaluating power supply options.

Customer Values and Priorities

The topics on this map show some of the values and priorities we've heard so far in our engagement.

These are shown here in binary terms although some of these may, in fact, be complementary.

This inventory isn't comprehensive, but it does capture many perspectives we have heard so far.

NEXT STEPS

Based on what we've heard, we'll be focusing on the following key areas in Stage 3:

1. Provide detailed cost information for each supply option. This should include the Levelized Cost of Electricity and breakdowns of other information in the modelling. Include projections for how the price of power will change over time.

2. Provide information on the environmental impacts of each supply option from start to finish. This includes information about manufacturing, decommissioning, generated waste, recyclability of materials, water use, land use, and other biological impacts.

3. Provide information about the economic impacts of each option on host communities. Discuss how the plan is considering the need to attract and keep a workforce with the required skills.

4. Include more of a focus on how the grid could be less centralized. Consider how customers could take a greater role in generating their own power. Discuss the role of energy efficiency programs and demand-side management.

5. Clarify the role and scale of imports and exports. Discuss considerations about energy security in the plan.

6. Continue progress on ideas identified in Stage 1. These ideas include the development of online tools to allow customer to explore future scenarios independently.

STAGE 2 OVERVIEW

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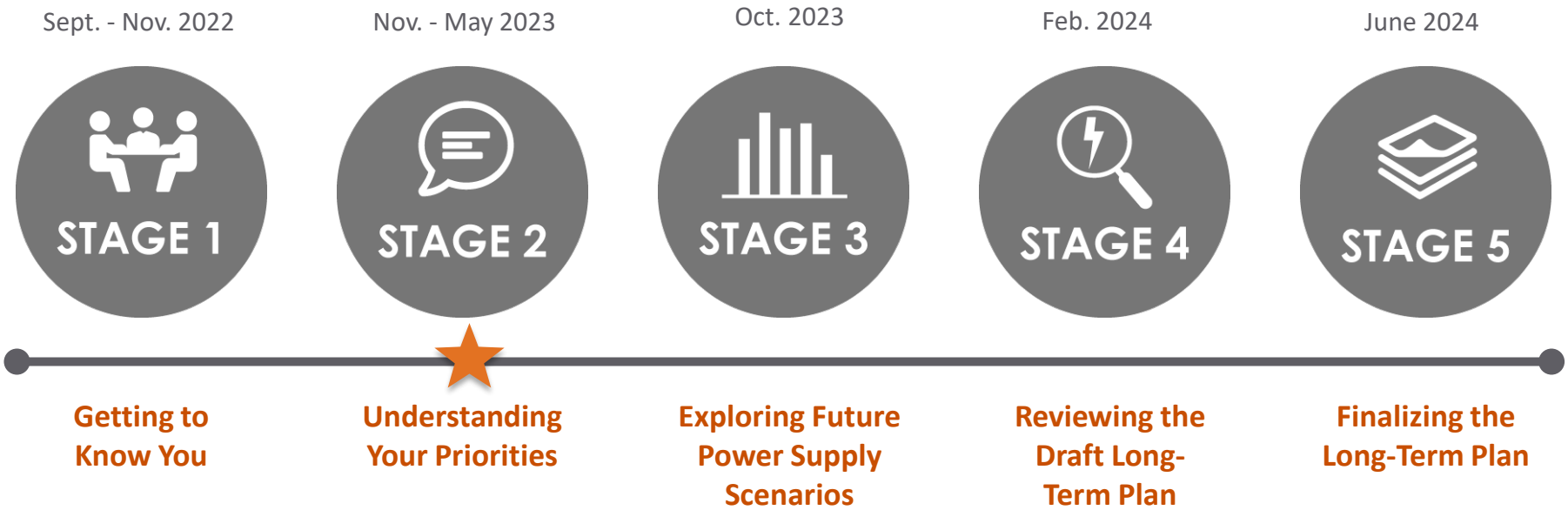
PROCESS



To best deliver on key areas of focus, we've shifted the 'Stage 3' timeline from beginning in June to beginning in October.

ACTIVITY OVERVIEW

Online Engagement

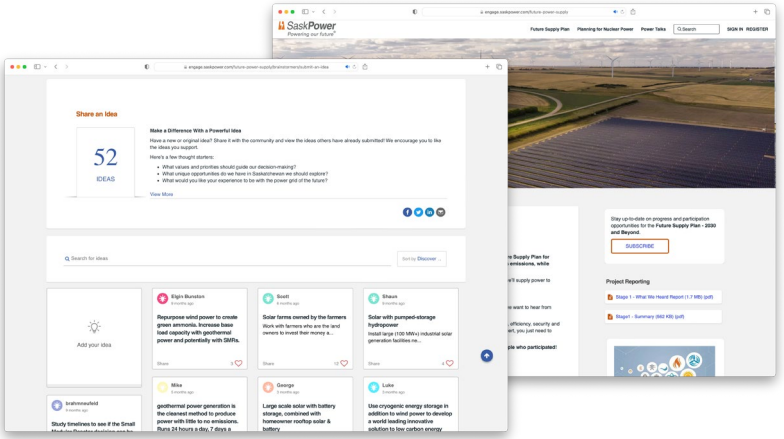
In Stage 2, saskpower.com/engage continued to be the hub for all project related updates and engagement opportunities.

The site featured online tools such as quick polls, ask a question, and submit an idea.

We launched a new survey based on the findings of Stage 1. Participation continued to increase throughout Stage 2, totalling over 15,000 survey completions. We attribute most of the additional participation to promotional activities.

Online tools in stage 2:

- 15,323 completed surveys
- 174 quick poll completions
- 42 ideas submitted
- 43 questions answered



ACTIVITY OVERVIEW

Power Talks

During Stage 1, participants told us they wanted to learn more about the supply options SaskPower currently uses and what's being considered for the future. They also said they want to hear from experts and industry professionals from other jurisdictions and utilities. In response, we delivered our first ever Energy Education Series – Power Talks.

Over 800 people attended one of the following sessions:

- Your Top Questions About Nuclear *(268 attendees)*
- SaskPower's SMR Nuclear Planning Project *(246 attendees)*
- Integrating Large-Scale Renewables *(171 attendees)*
- A Closer Look at Supply Options *(173 attendees)*

Session recordings are available online at saskpower.com/powertalks.

ACTIVITY OVERVIEW

Facilitated Public Workshops

We hosted a series of 2-hour workshops that enabled participants to learn about supply planning before partaking in a focused discussion about priority-setting.

Each small group received a presentation from a SaskPower subject matter expert on each of the following topic areas to support their discussion:

- Cost and Technology
- Environment and Emissions
- Social and Human Factors

We hosted a total of 7 workshops with a total of 125 attendees.

In a poll taken at the beginning of the session, half of participants (51%) indicated Costs & Technology was top of mind for them.

In our post-session evaluation, participants indicated they learned the most about Technology & Costs (82%) followed by Social & Human Factors (69%) and Emissions & Environment (67%).

A total of 91%* indicated that the session provided an effective opportunity to share their perspective on future supply priorities.

**Percentages of participants who provided a rating of either 4/5 or 5/5.*

ACTIVITY OVERVIEW

Student Learning Events

In response to what we heard in Stage 1, we increased our outreach to youth. We held four student engagement sessions at the following post-secondary institutions:

- University of Regina
- University of Saskatoon
- First Nations University of Canada
- Saskatchewan Polytechnic

The events were advertised specifically to students on social channels, posters and faculty-led invitations.

ACTIVITY OVERVIEW

Promotional Tactics

During Stage 2 the following tactics were used to promote the engagement opportunities:

- Social media promotion and contesting
- In-person promotion at community events like Agribition and Co-operators Centre
- Direct mail to 345,000 households
- Province-wide print ad buy
- Project-specific online newsletter
- Media release
- Distribution by community organizations

Throughout Stage 2 our newsletter subscription grew to 7,461.

Community Events

The project team attended many events to promote the Future Supply Plan project, answer questions and gather feedback, including:

- SARM Mid-term Convention
- SK Young Ag-Entrepreneurs Conference
- Indigenous Business Gathering
- SARM Annual Convention
- SUMA Webinar
- FSIN Assemblies – winter and spring
- Yorkton Tribal Council Food and Energy Security Event
- SUMA Annual Convention
- Métis Nation of SK members sessions
- RM Administrations of SK Convention

ONLINE ENGAGEMENT

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STAGE 2 ONLINE ACTIVITY

During the period from November 16, 2022 to April 6, 2023, activity on the engagement site was as follows:

- 14,600 site visits
- 10,700 visitors
- 467 max visits per day

Mobile devices were the most common method of access (53.4%), followed by desktop (34.1%) and tablet devices (12.5%).

Analytics from online tools show participation as follows:

- 15,323 completed surveys
- 174 quick poll completions
- 42 ideas submitted
- 43 questions answered

Note: some surveys were completed using a survey tool separate from the engagement site.

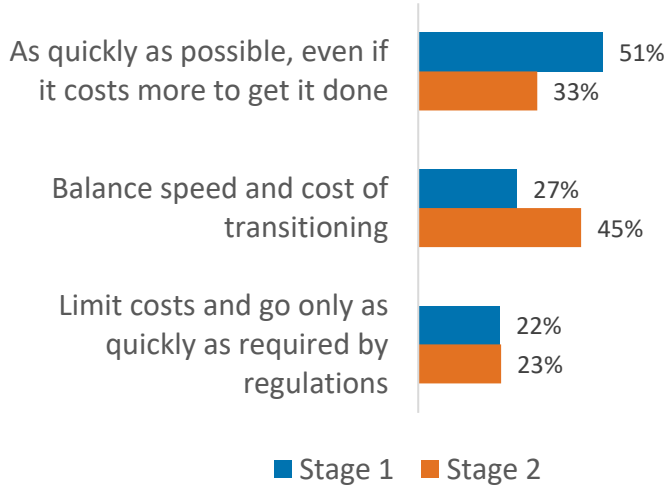
ONLINE ENGAGEMENT

QUICK POLL RESULTS

QUICK POLL RESULTS

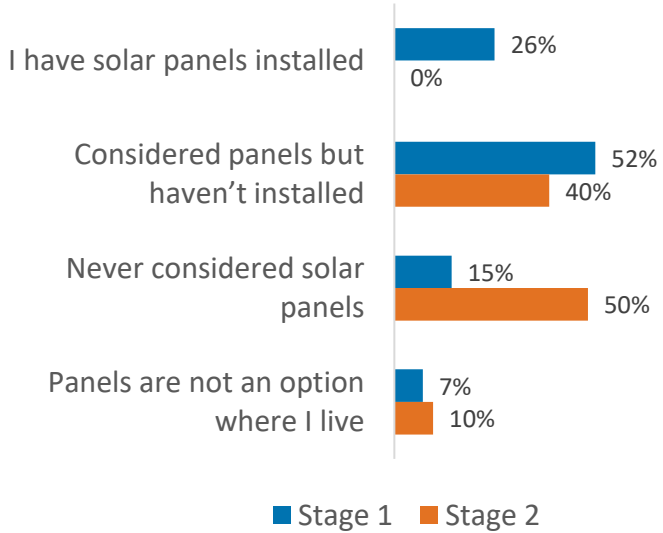
How quickly should we be transitioning to low and net-zero emissions power generation sources?

Stage 1 - 85 responses
Stage 2 - 132 responses



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

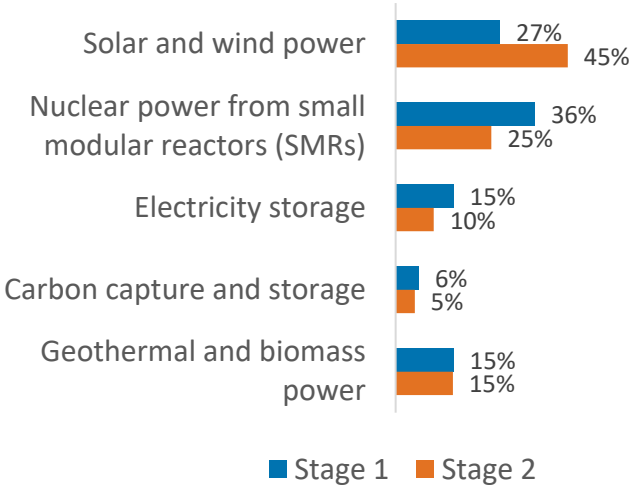
Stage 1 - 27 responses
Stage 2 - 10 responses



QUICK POLL RESULTS

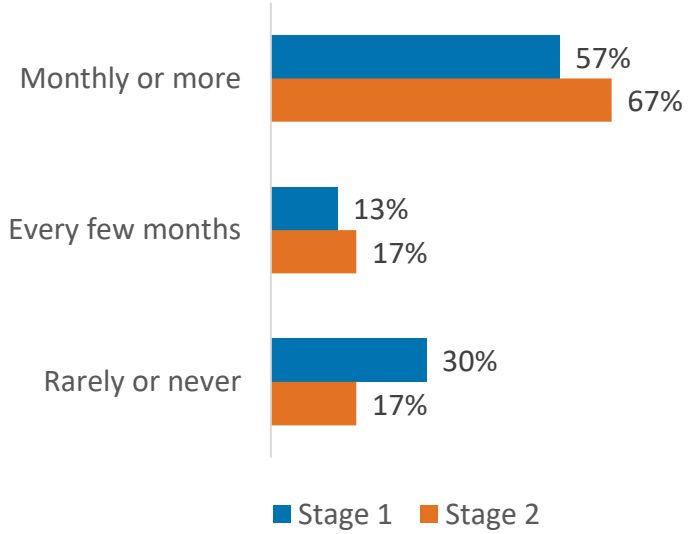
Which of the following generation technologies are you MOST interested in learning more about:

Stage 1 - 33 responses
Stage 2 - 20 responses



How frequently do you check your power consumption?

Stage 1 - 23 responses
Stage 2 - 12 responses



ONLINE ENGAGEMENT

SURVEY RESULTS

In market: Nov. 30, 2022 to April 6, 2023

SUPPORT FOR GENERATION OPTIONS

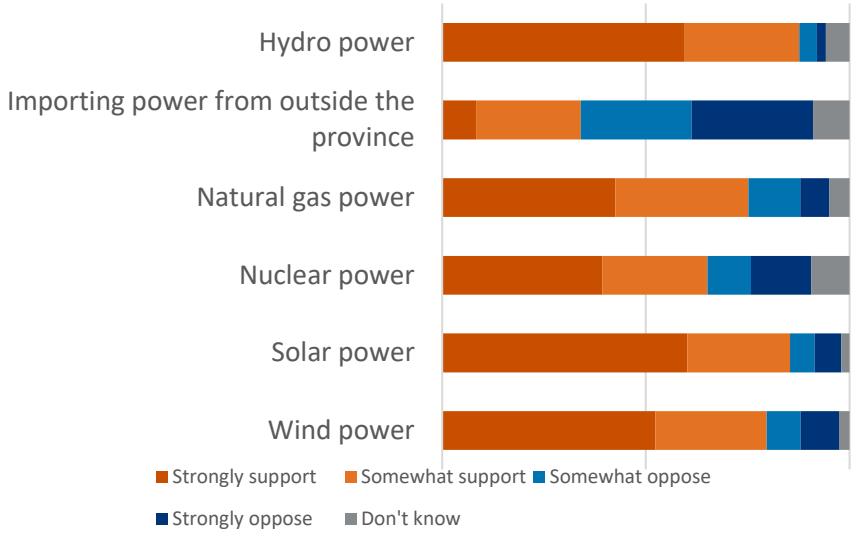
Hydro power had the greatest level of support with 88% in favour and the least amount of opposition at 7%.

At 85%, support for solar power was close to hydro power but with more opposition at 13%. Wind power ranked third at 80% support but had more opposition compared to solar at 18%.

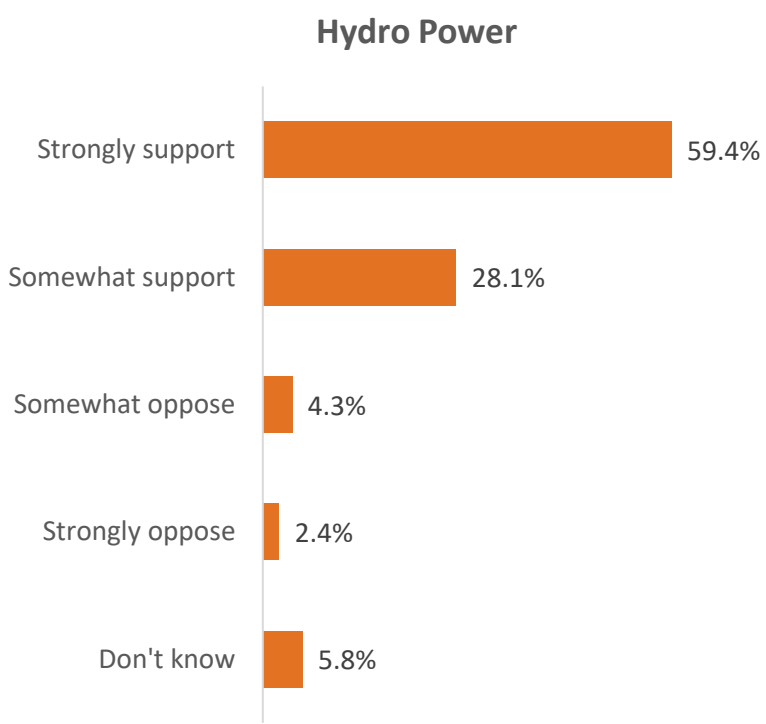
Natural gas and nuclear power had lower levels of support at 75% and 65%, respectively. Between the two generation options, nuclear had the most opposition as well as the most “Don’t Know” responses at 9%.

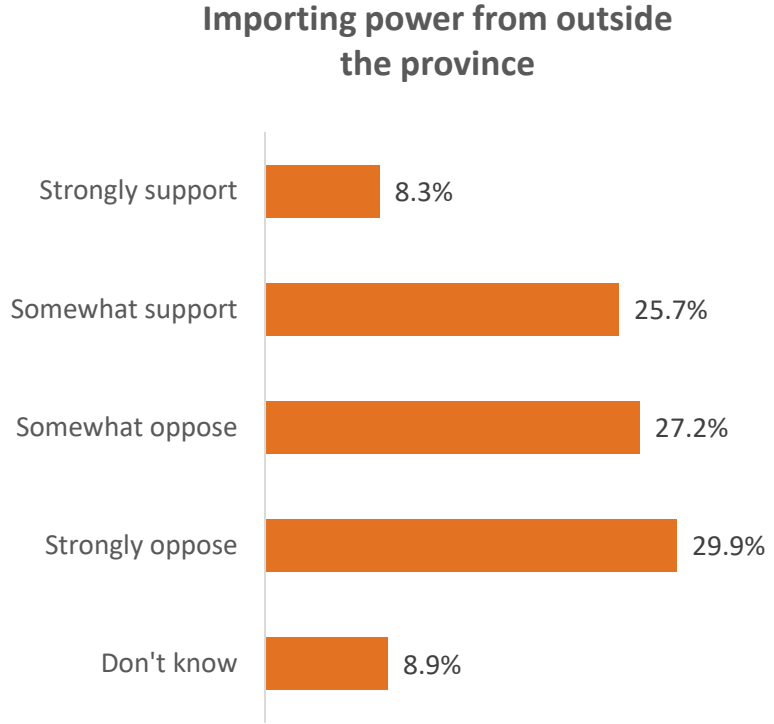
Imports was the only option that had more opposition than support with 34% support and 57% opposed.

Do you support the following ways to power Saskatchewan?

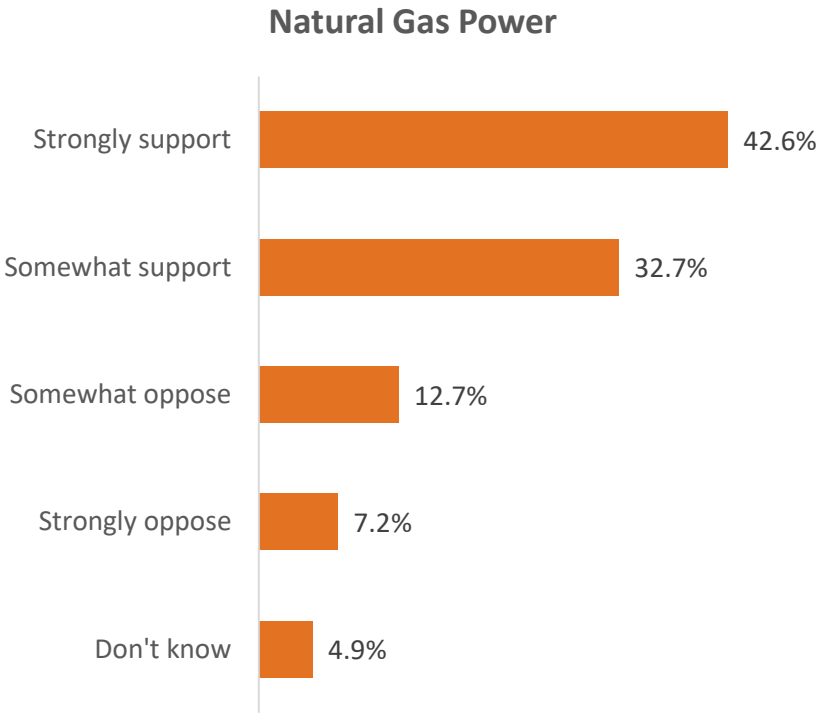


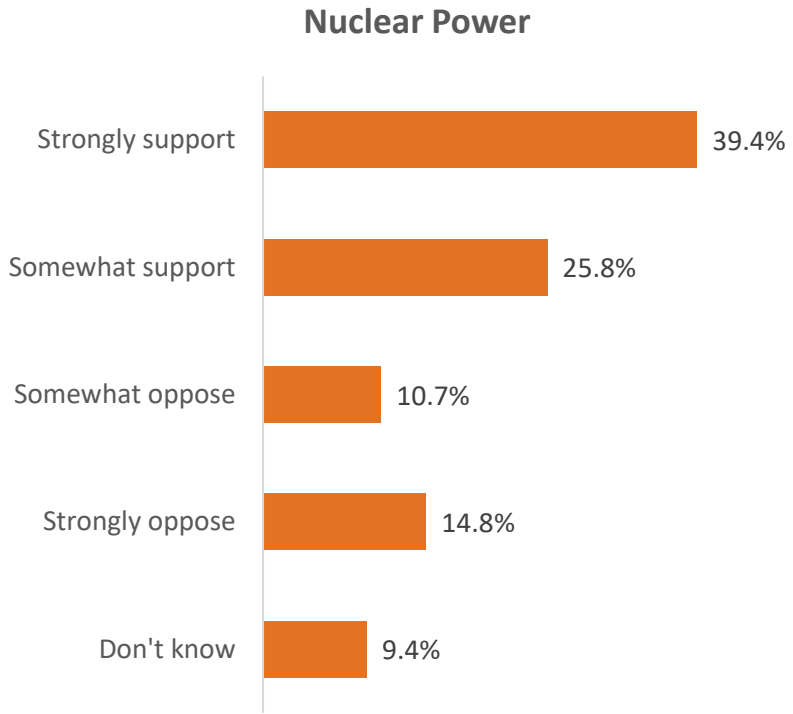
SUPPORT FOR GENERATION OPTIONS



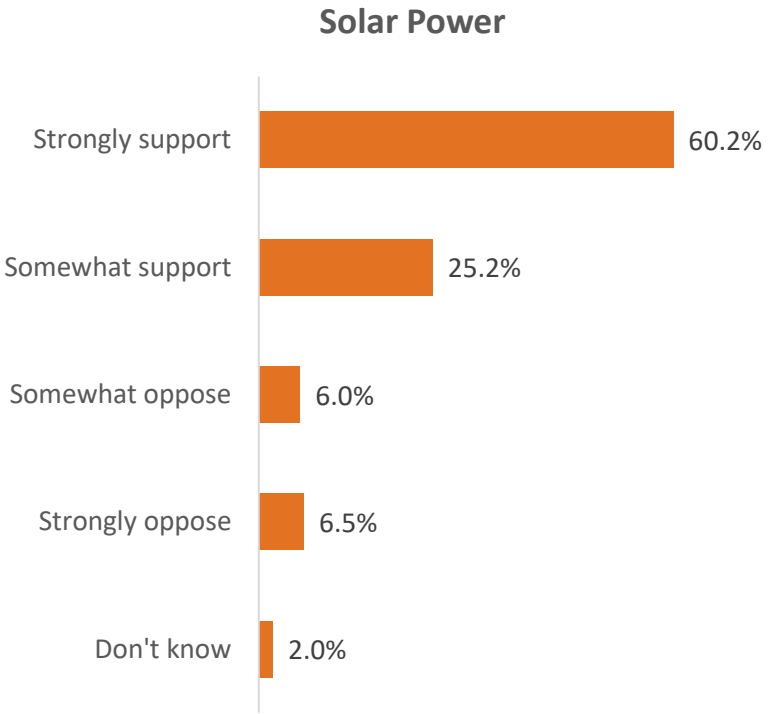


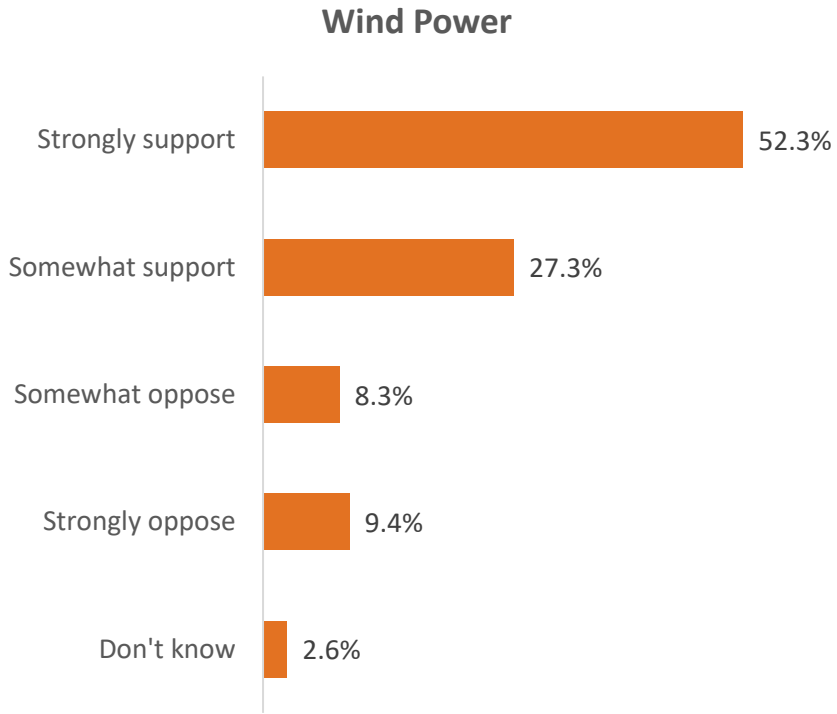
SUPPORT FOR GENERATION OPTIONS





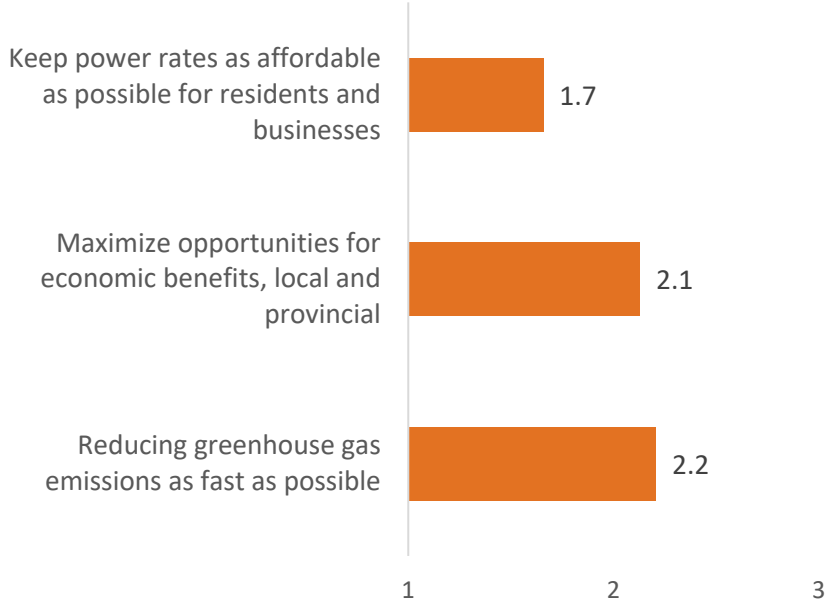
SUPPORT FOR GENERATION OPTIONS





CUSTOMER PRIORITIES

Rank the importance of the following, with number 1 being the most important.

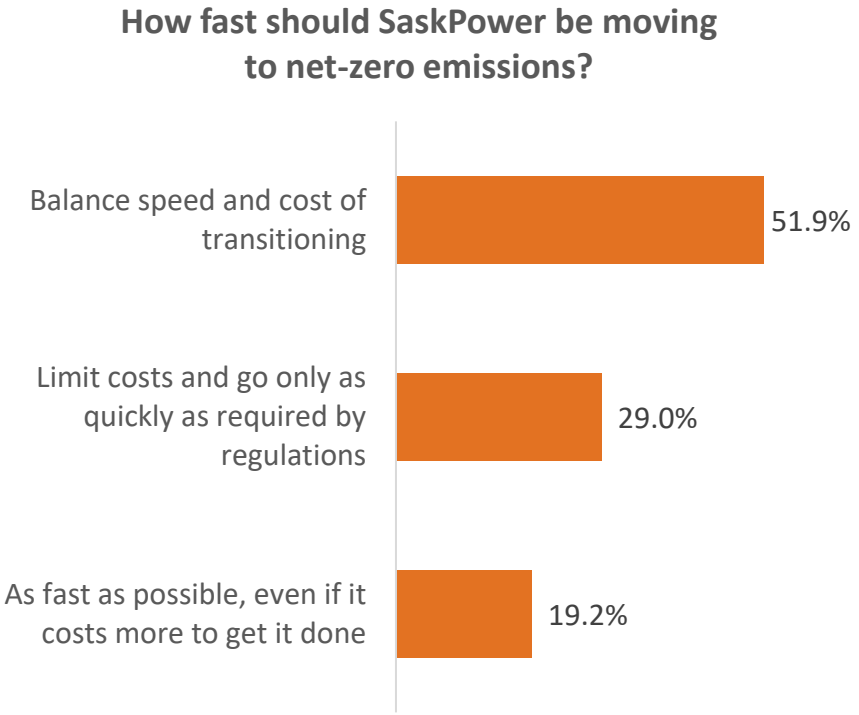


Customers ranked affordability as the highest priority. The difference in ranking for affordability was more pronounced than other areas. A total of 51% of participants selected this as their top priority.

Economic benefits ranked second and chosen as the top priority by 20% of respondents. Participants rated it most often as their second priority (47%).

Reducing greenhouse gas emissions ranked third on average. However, participants chose it as the top priority more often than economic benefits. A total of 29% of respondents rated it as their top choice. This priority area was ranked most frequently as the third choice (50%).

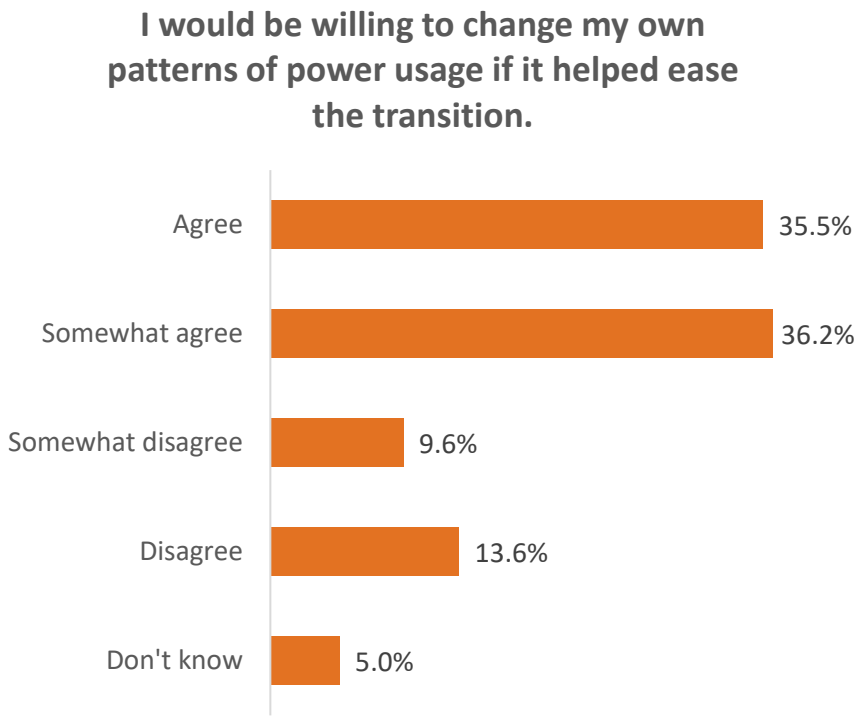
SPEED OF TRANSITION



More than half of participants favoured an approach that balanced speed and cost. There were 29% who believed the focus should be on limiting costs while staying compliant. Support for an expedited transition that costs more was 19% .

The results to this question are different from the results in Stage 1, which had fewer participants. Results at that time showed 40% support for a transition that balanced speed and cost. Nearly as many (39%) were in favour of a faster transition even if it resulted in more expense. In Stage 1, 21% believed the focus should be on limiting costs.

ATTITUDES AND PERCEPTIONS



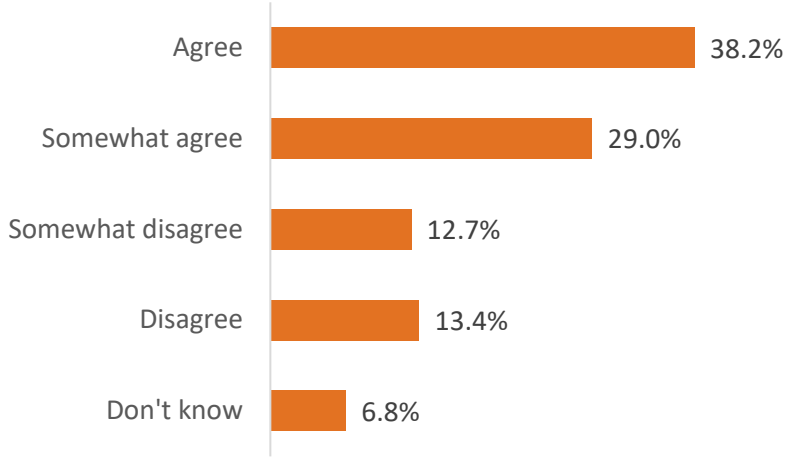
72% of participants agreed that they were willing to change their patterns of power usage if it helped ease the transition.

Less than a quarter of participants didn't agree (23%).

Female participants, and those under 45, were more likely to agree.

ATTITUDES AND PERCEPTIONS

SaskPower should support customers who want to use their own solar panels. SaskPower should do this even if it is less cost-effective than the company making the power itself.



Over two-thirds of participants believe SaskPower should be supporting customers who want to use their own panels. This included the caveat that it may be less cost-effective for customers than for SaskPower to generate the power.

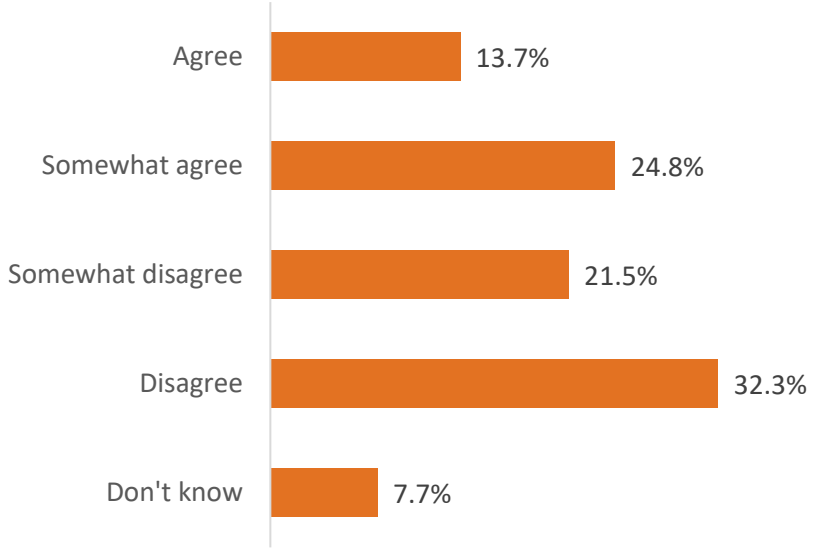
There were 26% of participants who either somewhat disagreed or disagreed and 7% which indicated they didn't know.

Participants aged 35-44 and 65+ were the most likely to agree with this statement.

This result is consistent with what we heard during the previous stage.

ATTITUDES AND PERCEPTIONS

SaskPower should import power in the province when necessary so we can rely more on wind and solar power.

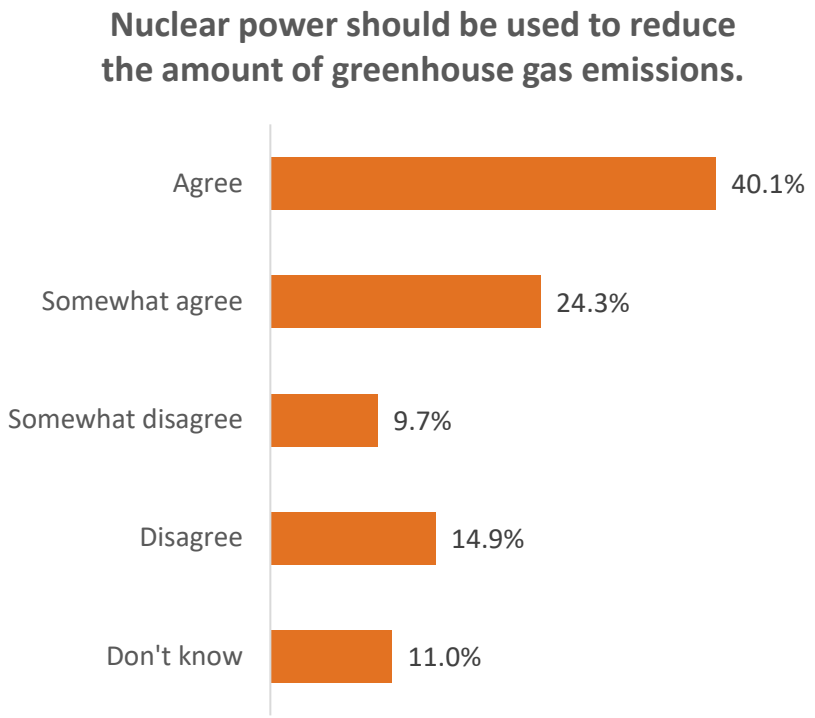


Results about imports was consistent with the previous questioning about importing power.

Responses was more favourable when asked about the use of imports to enable SaskPower to rely more on wind and solar power.

In both cases, there was more opposition than support. Over half of participants disagreed with relying on imports.

ATTITUDES AND PERCEPTIONS



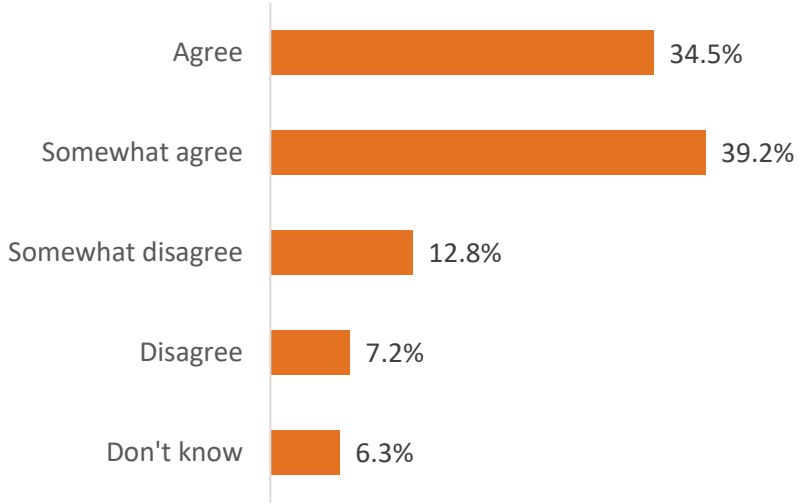
A total of 64% of participants agreed, or somewhat agreed, that nuclear power should be used to reduce greenhouse gas emissions.

Approximately 25% either disagreed, or somewhat disagreed, with the statement. This result was comparable with the previous question about nuclear.

Support for nuclear power was higher among male respondents compared to female respondents.

ATTITUDES AND PERCEPTIONS

I trust SaskPower to make future supply decisions that balance the needs of residential, business and industrial customers.



74% of participants either agreed or somewhat agreed that they trust SaskPower to make decisions that balance the needs of all its customers.

A total of 20% either disagreed or somewhat disagreed with the statement.

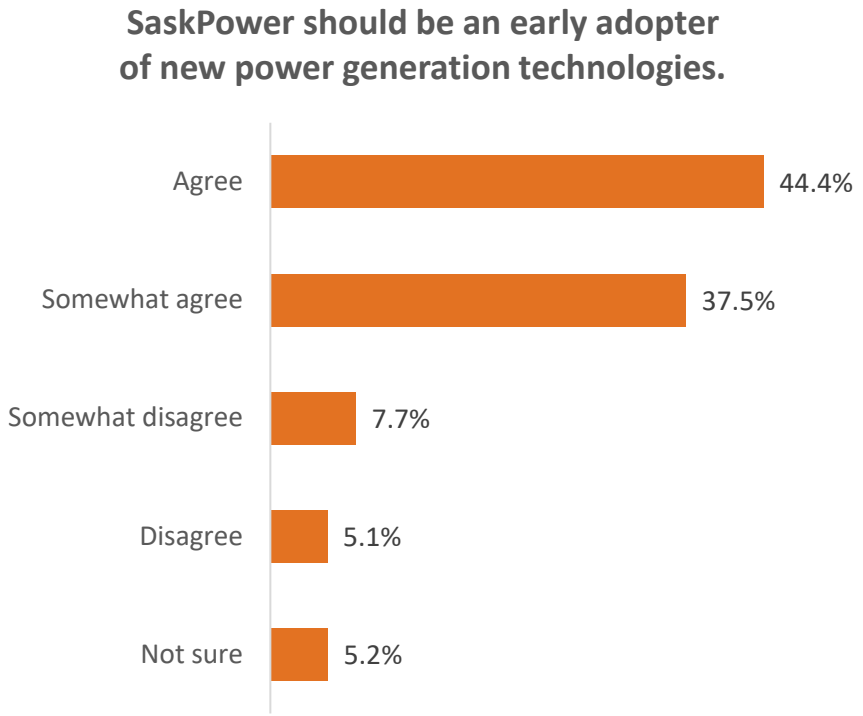
Participants over the age of 65 were more likely to agree with this statement.

INNOVATION AND NEW TECHNOLOGIES

Most customers (82%) believe SaskPower should be quick to adopt new technologies.

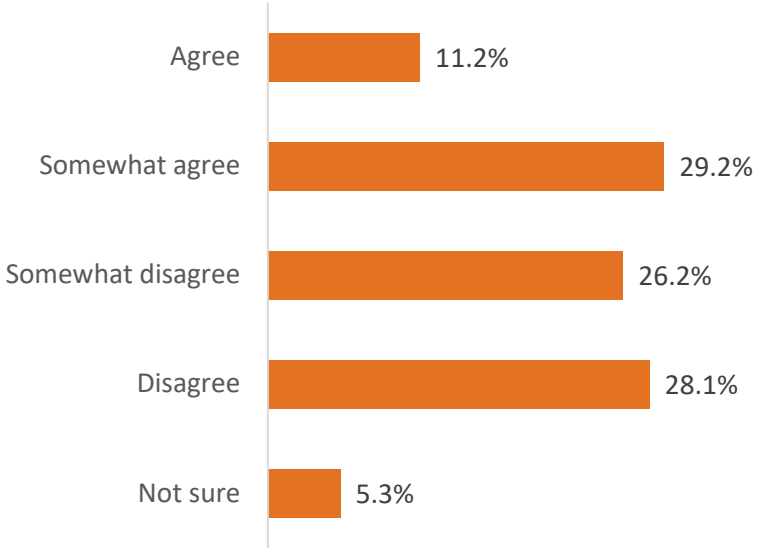
When asked about using technology that wasn't proven, the level of agreement dropped to less than half (40%).

Almost two-thirds (64%) agree SaskPower should be innovative and make some calculated risks.

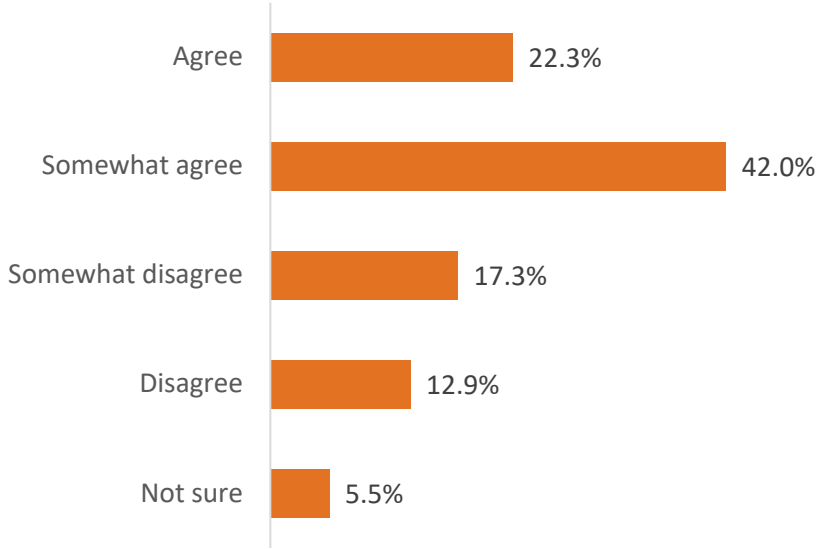


INNOVATION AND NEW TECHNOLOGIES

SaskPower should try promising new technologies, even before they're completely proven.



SaskPower should be innovative and take some calculated risks during this transition.



RANKING OF POWER SUPPLY OPTIONS

In this question, we asked participants to rank the three listed items in order of importance i.e. 1, 2 & 3.

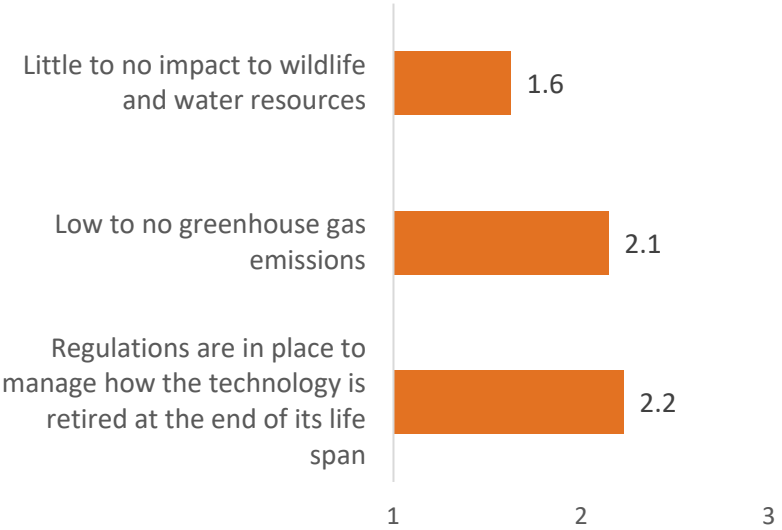
Among environmental considerations, impacts to wildlife and water resources was rated highest.

Low to no greenhouse gas emissions followed next in importance.

Having regulations in place to manage the end-of-life retirement was next, just ahead of emissions.

When you think of your ideal power system and the environment what's most important to you?

Number 1 is most important.



RANKING OF ECONOMIC PRIORITIES

In this question, we asked participants to rank the four listed items in order of importance.

Long-term price stability was the highest priority. Nearly half of participants selected this as their top priority. It was the second option for another quarter (25%).

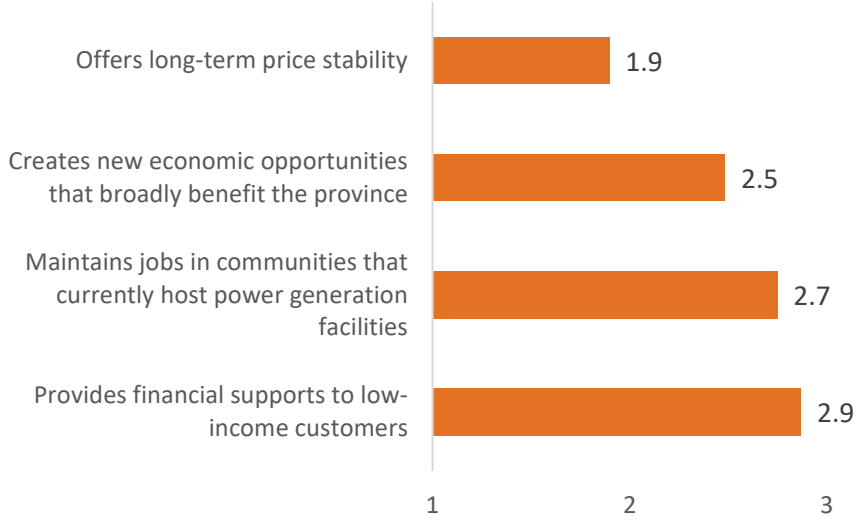
Creating new economic opportunities was second. This option was the top choice for 22% of participants and the number two choice for 30%.

Maintaining jobs in communities that currently host power generation facilities was third. It was the top choice for 14% of participants and second for 25%.

Providing financial supports to low-income customers was lowest on average. Still, 16% of participants ranked it as their top priority and second by another 20%.

When you think of your ideal power system and the economy what's most important to you?

Number 1 is most important.



RANKING OF OPTIONS TO BACK UP RENEWABLES

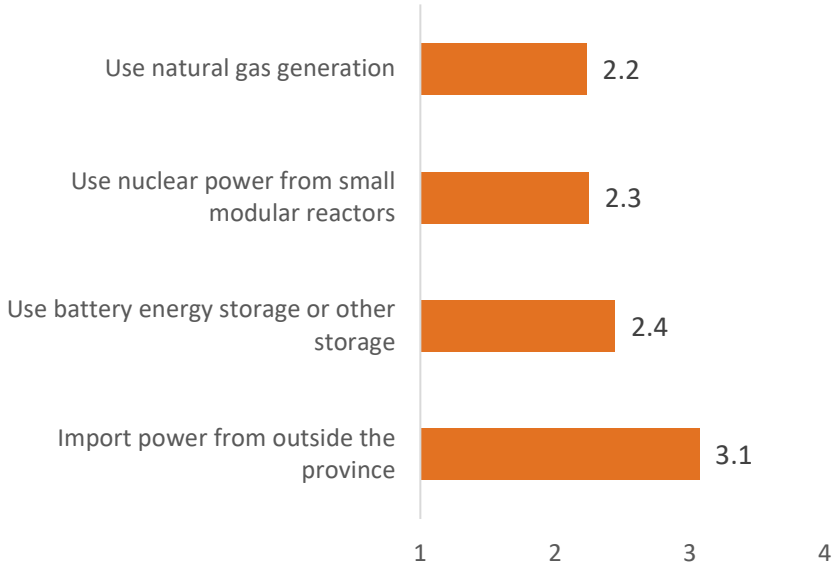
Natural gas was the top choice to back up solar and wind in the future, followed closely by nuclear power.

Battery energy storage was ranked just behind the top two generation options.

Support for importing power has the least favourable response. This result was consistent with previous questions about imports.

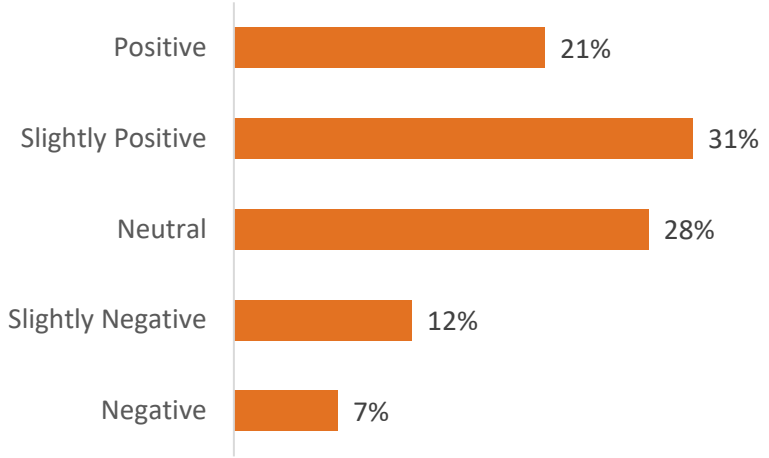
How would you like to back up solar and wind in the future?

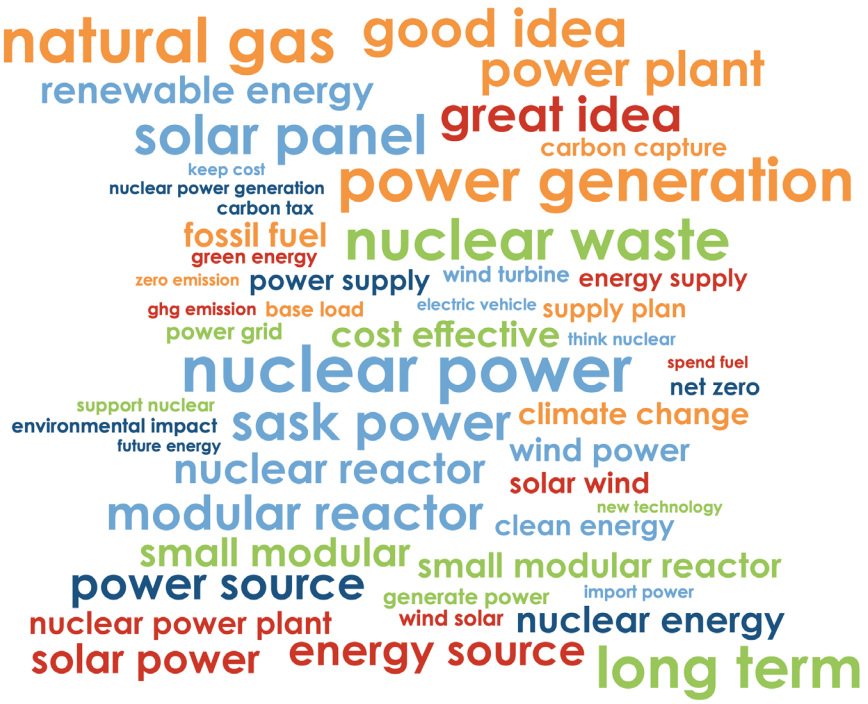
Number 1 is most preferred.



OPEN-ENDED QUESTIONS

Nuclear power from small modular reactors (SMRs) is under consideration in Saskatchewan. Do you have any comments about nuclear as a potential future power source?





CUSTOMER QUOTES

Participants were polarized in their support for nuclear power. While many were strongly supportive, others had significant concerns about cost, safety and waste.

- *"The rational part of me loves this idea, the fearful parent in me hates it."*
- *"As someone who isn't super educated on nuclear power, my initial thought is a bit of fear. A great information campaign by SaskPower would be awesome."*
- *"Please proceed with the development of SMRs as quickly as possible. I have zero concerns about using this type of clean energy to reduce our GHG emissions."*
- *"Until the issue of long term, safe waste disposal is proven the idea of nuclear power is not appealing."*
- *"Very concerned if something goes wrong, storage of the nuclear waste and building cost."*
- *"Nuclear power is great when it works but completely disastrous when it doesn't and not worth the risk."*

CUSTOMER QUOTES

Wind and solar had their share of supporters and detractors. Concerns focused on intermittency and environmental impacts of manufacturing and decommissioning.

- *"We should invest in wind and solar power first."*
- *"Use the natural advantages we have – solar and wind, and minerals to invest in very good battery storage."*
- *"We're in the sunniest part of Canada and there are plenty of proven energy storage solutions – it's not hard!"*
- *"I think wind power is not cost effective, generates large amounts of waste and resource consumption to build and should not be pursued unless the technology can be improved."*
- *"Stay away from wind and solar, these are worse for the environment than gas, hydro and nuclear."*
- *"Please do not saddle us with wind and solar power without the backup plans for our cold winters and hot summers."*

CUSTOMER QUOTES

The impacts of planned changes on host communities and workers was a concern.

- *"Please plan for future power generation in Estevan to replace the lost of coal power generation."*
- *"Killing jobs in the community of Estevan once you get rid of the coal industry is absolutely unacceptable."*
- *"Do not shut down our coal plants. That results in job losses and communities suffer! Just look at Coronach for example. That town will be doomed when Poplar River shuts down."*
- *"Please train the current power workers to learn about nuclear energy – your middle aged workers to millennials. Do not let them lose their jobs because they don't have the skills and knowledge."*
- *"I hope for a "just transition" where people currently employed in areas that produce GHG emissions are able to move to clean energy jobs."*
- *"Sustainability and economy can go hand in hand. If we invest now we will be providing a better future for our youth and stable jobs for energy workers."*

CUSTOMER QUOTES

Increases in the cost of power was a concern, particularly for customers with low income. Participants want to see programs for energy efficiency and conservation.

- *"Clean energy is good but at this difficult time, we should care more about affordability, especially for low income families."*
- *"Be fair. Don't screw the poor over, please."*
- *"Develop programs to promote energy efficiency in all sectors of the economy."*
- *"Everyone needs to reduce their power usage and SaskPower can help spread that message. Energy use reduction is the only way we can actually achieve any sort of workable system."*
- *"SaskPower should invest much more heavily in electricity efficiency and in incentivizing electricity conservation."*

CUSTOMER QUOTES

Compensation for the net metering program does not align with customer expectations.

- *“Don’t punish customers who are more serious than you about the environment.”*
- *“Stop butchering net metering rates and making it sound like it’s costing too much money. It’s one piece of the puzzle and utility scale is not moving fast enough, homeowners are.”*
- *“SaskPower treats solar generation and small producers like me as a problem to be managed, not a resource to be drawn on.”*
- *“Residential early adopters of renewables should not be punished with the current poor solar net metering program.”*
- *“Call the current ‘net metering’ program what it is – feed-in-tariffs.”*
- *"Investments in generation approved by SaskPower should be accompanied by a contract for a specific period of time to ensure the investor a reasonable return on investment and not be subject to ever changing ideologies about the generation of electricity.”*

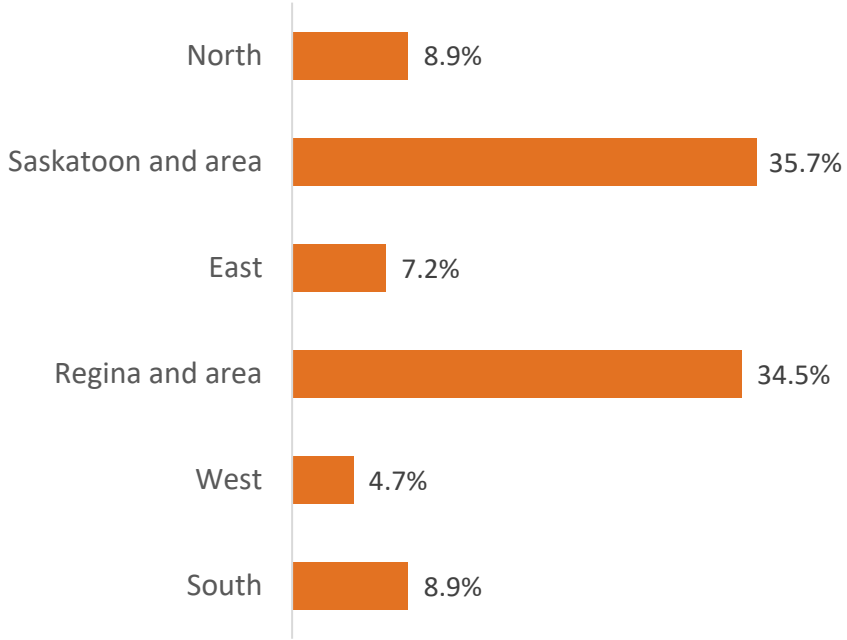
CUSTOMER QUOTES

Perspective on climate change continue to be polarized. Comments indicate a range of perspectives from grave concern to indifference.

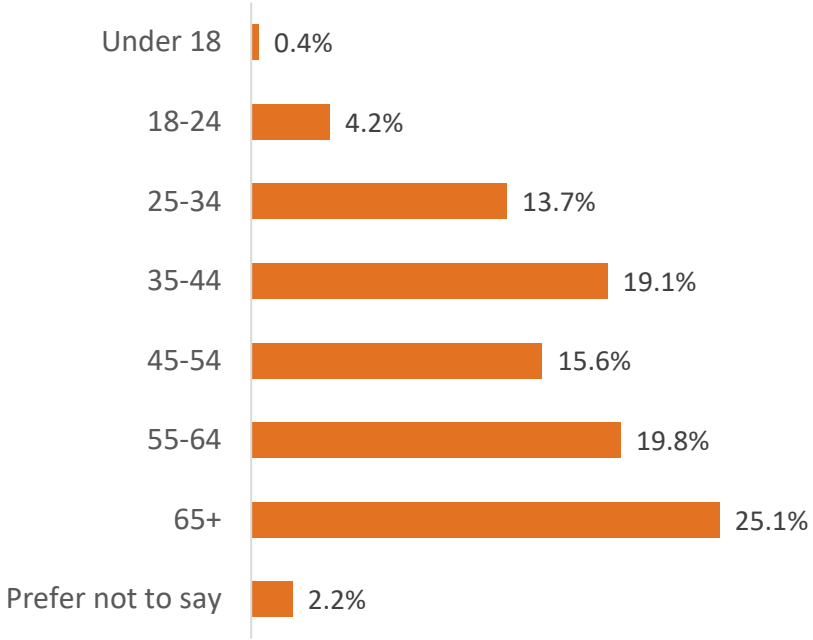
- *"I stay awake at night wondering if you have a handle on the power grid, not about climate change."*
- *"I am personally sick of the "climate crisis"."*
- *"Decisions need to be made to support the people of the Saskatchewan and not the unreasonable thoughts of climate change activists."*
- *"Climate change has been blown out of proportion. We need to have a balanced approach to power."*
- *"I'm sorry to be so blunt, but you have had 40 years to come to terms with this global crisis and so far every Saskatchewan government and every SaskPower management team has hidden from it, offering only tiny changes that fail to recognize the magnitude of the emergency."*
- *"Why are we dragging our feet in a climate crisis?"*
- *"Unfortunately, this province is populated by climate change deniers, so any positive change for the environment is going to be met with strong opposition, especially if it means people need to lower their consumption and/or pay more."*

DEMOGRAPHICS

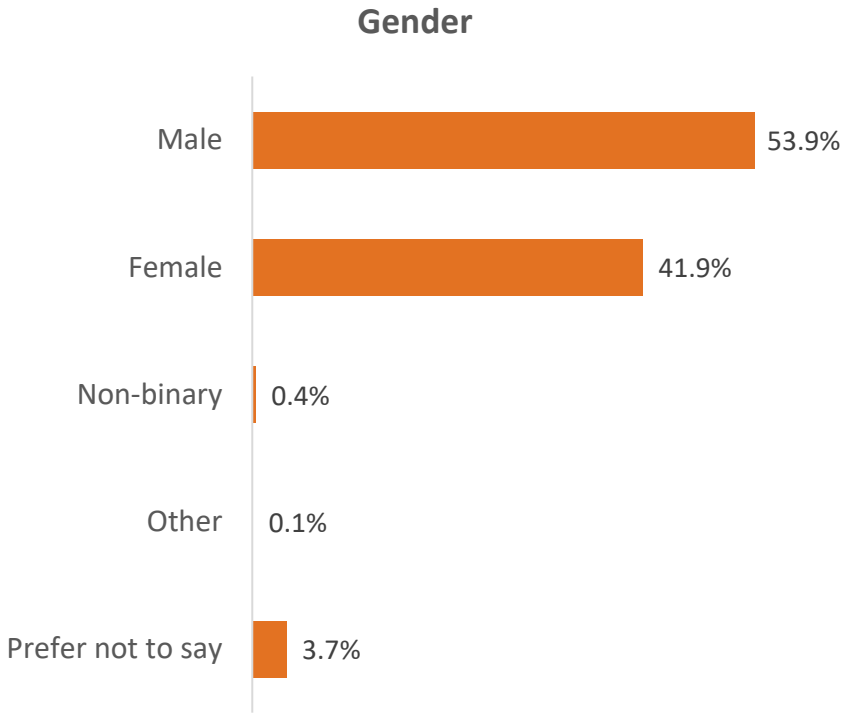
Location

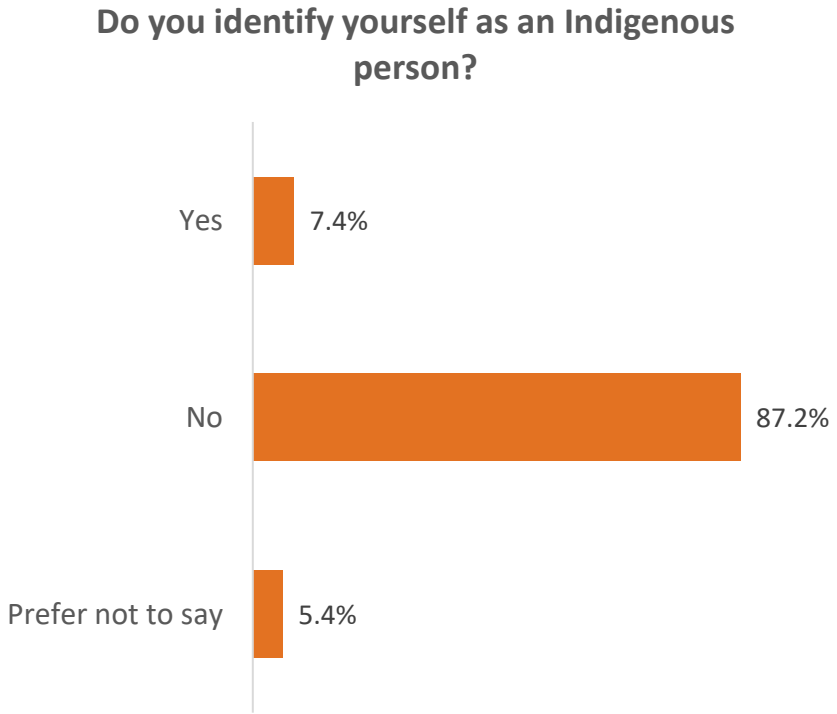


Age



DEMOGRAPHICS





ONLINE FACILITATED WORKSHOPS

SaskPower
Powering our future®

WORKSHOP DESCRIPTION

Overview

We hosted public workshops that included time for learning and participation. Based on what we heard in Stage 1, we focused on three specific areas of supply planning.

These included:

- Cost and Technology
- Environment and Emissions
- Social and Human Factors

Following the presentations by SaskPower employees, participants were able to ask questions.

After the topic education was complete, we asked the groups to do two tasks. First, they identified their priorities from a longer list. This longer list of topics was compiled from Stage 1 discussions. Second, they were asked to identify anything that they believed was missing. This process was repeated for all three topic areas.

Once complete, all participants regrouped to share their thoughts. A facilitator was present with each group to document and guide the discussion.

WORKSHOP DESCRIPTION

Post-Workshop Survey

At the close of the workshop, we asked participants to complete a survey. This allowed participants to reflect on what they learned and discussed.

The first question focused on specifics of individual topic areas. This question asked them to choose their top priorities from an existing list.

The final question asked participants to reflect their priorities in a different way. This question asked them to assign a weight out of a possible 100% across each of the three areas.

Public attendance: 58

- Promoted on saskpower.com and engagement site

Recruited: 67

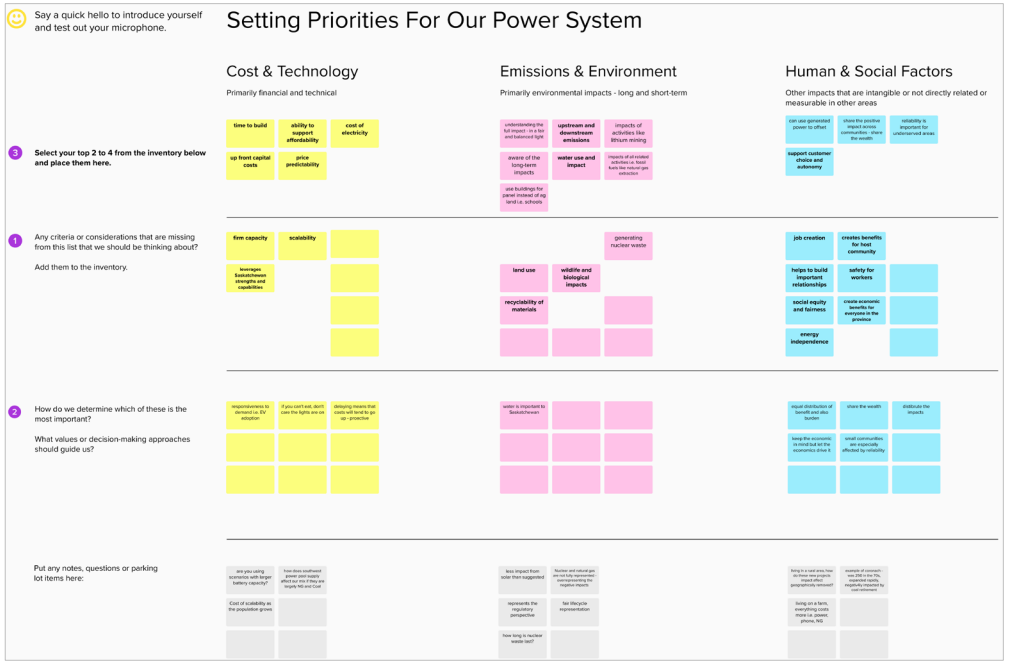
- Recruited by Insightrix
- Screening criteria were used to ensure a representative mix of participants (age, gender, region, Indigenous identity, attitudes towards SMRs)

FACILITATION TOOLS

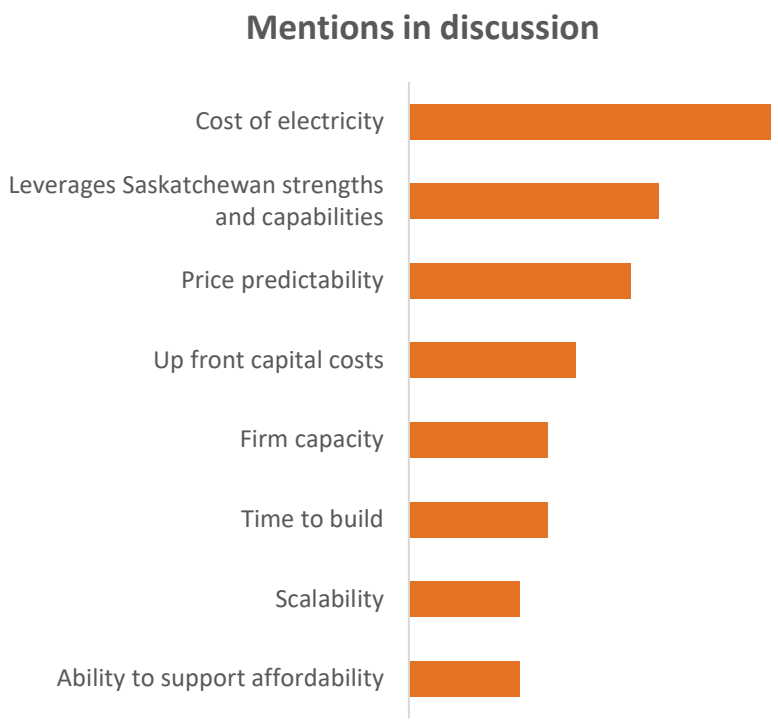
Participants used Zoom to view presentation content and participate in discussion.

Small breakout groups were possible using built-in Zoom functionality. An online whiteboard allowed users to contribute directly and observe documented comments in real-time.

The example on the right shows contributions from a single breakout group.



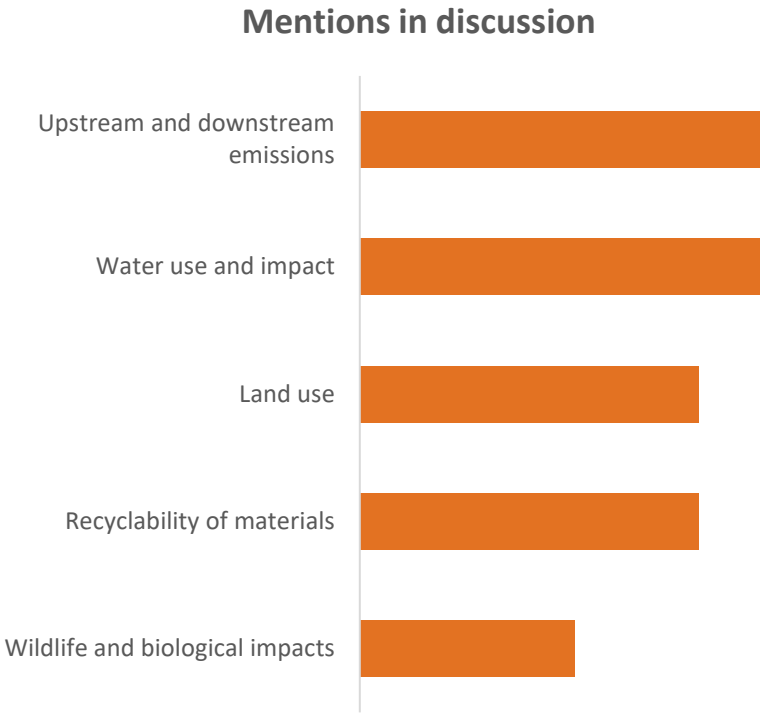
COST AND TECHNOLOGY



Other considerations raised in discussion:

- System reliability
- Integrates well with smart-grid technology to shape loads and drive efficiency
- Are a manageable risk to operate
- Can be insured
- Allows for sourcing of base necessities from Saskatchewan
- Provides good return on investment
- Enables self-sufficiency

EMISSIONS AND ENVIRONMENT



Other considerations raised in discussion:

- Capable of making positive environmental impacts
- Leverages available hydro capacity
- Can operate within jurisdictional bylaws
- Supports customer ESG goals
- Compatible with agriculture
- Avoids harmful waste
- Aligns with moral and ethical obligations

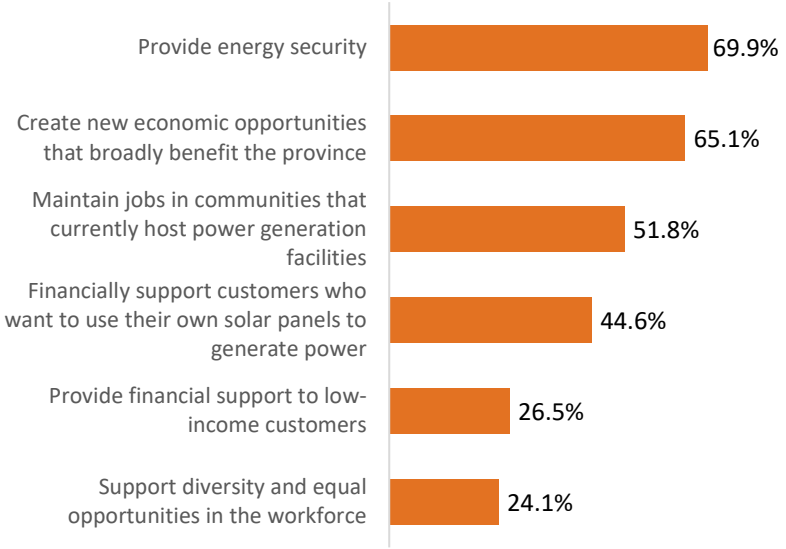
HUMAN AND SOCIAL FACTORS

Other considerations raised in discussion:

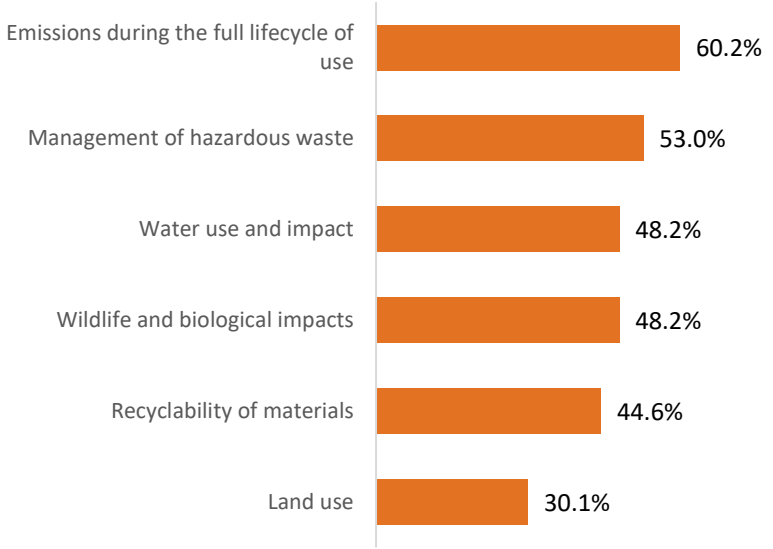
- Is supported by educational strategy for skill development
- Build relationships with Indigenous Rightsholders
- Supports local construction and industry
- Has support of local labour and skilled workforce
- Doesn’t result in towns and communities being irreparably damaged due to transition
- Meets moral obligations to workers
- Create economic opportunities in the north
- Access to emergency services

POST-WORKSHOP SURVEY RESULTS

Of the following aspects that relate to human and social factors, which are the most important? Choose up to 3.

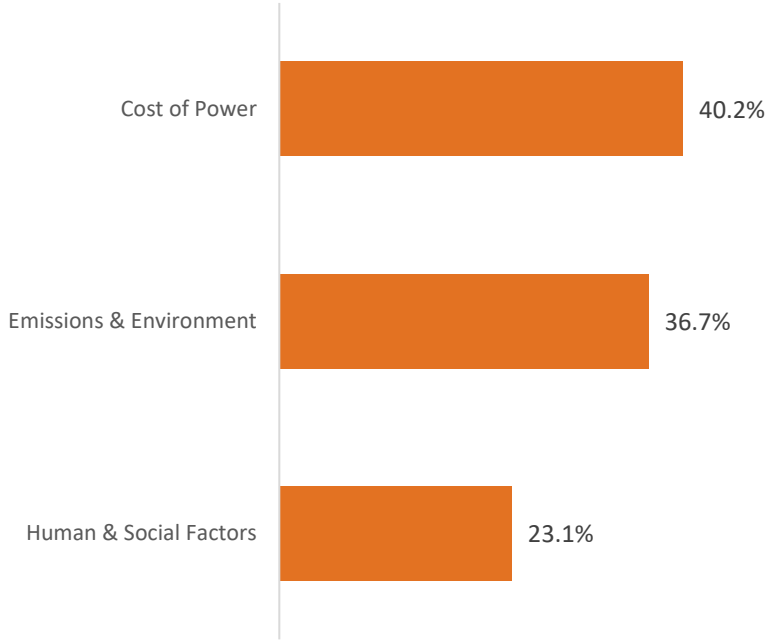


Of the following aspects that relate to environment and emissions, which are the most important? Choose up to 3.



POST-WORKSHOP SURVEY RESULTS

Average of Priority Weight



Post-Session Participant Evaluation

Scale of 1 to 5.