

Future Power Supply



FALL SURVEY RESULTS



November 2021

1. Which of the following criteria are most important to you when considering different power source options? Please select all that apply.

ANSWER CHOICES	RESPONSES	
Land use and footprint	33%	41
Emissions and air quality	79%	98
Water use	37%	47
Economic impact	43%	54
End of life management	35%	44
Noise	13%	17
Reliability (baseload/intermittent at what percentages)	53%	66
Decommissioning	28%	35
Lifecycle management through each stage (planning, development, construction, operations, maintenance)	37%	46
Levelized cost of energy	30%	38
Technology availability	24%	30
Other (please specify)	12%	15
Total Respondents: 124		

Other comments:

- Rapidly ramp up solar and wind and use hydro from Manitoba for baseload—by far the most cost-effective option and an urgent priority to avert catastrophic climate change!
- Reliable, baseload electricity that isn't compromised when the sun isn't shining, or the wind isn't blowing.
- Whether Government owned (preferred) or Privately owned.
- Solar panels on all public government buildings and a major push for solar panels on homes, schools, hospitals etc. WE MUST DECARBONIZE OUR ENERGY SOURCES. WE MUST ALSO SERIOUSLY MOVE TO OTHER RENEWABLES AND SERIOUSLY CONSERVE AND CHANGE OUR CANCEROUS EVERGROWING USE.

- Developing small modular reactors that can be stacked needs to be priority 1.
- Safety. Absolutely not anything nuclear
- Net cost of power production... if the cost and impact of the "emission reduction" is more than the present production, it's not a good solution
- what leaves the smallest mess for our great-great grandkids to deal with?
- Do not stick the province with "nuclear" liabilities for the next 100 years particularly as has occurred and continues in other countries as well as Canada.:
- Can the generation be controlled to manage the intermittency?
- Right tool for the job. Multiple generation options.
- Technology that focus is energy efficiency
- Diversification of energy sources
- Reduction of use. Increase in KWH charge above a base.

2. This fall, SaskPower will host interactive sessions on a variety of power-related topics. Would you be interested in participating in a session(s) assuming you are available?

ANSWER CHOICES	RESPONSES	
	Percentage	Count
Yes, to either an in-person or virtual session	55%	69
Yes, to an in-person session only	1%	1
Yes, to a virtual session only	29%	37
No	5%	7
Unsure	8%	10
Total Respondents: 124		

3. When works best for you to participate in a session? Please check all that apply.

ANSWER CHOICES	RESPONSES	
Daytime during the week	79%	83
Evenings during the week	45%	48
Daytime during the weekend	19%	20
Evenings during the weekend	16%	17
Total Respondents: 105		

4. Which of the following topics are you most interested in hearing about at these sessions? Please check all that apply.

ANSWER CHOICES	RESPONSES	
How the power grid works and the way we've been integrating renewable power	55%	58
Exploring new technologies: geothermal, hydrogen, storage	69%	73
Building an integrated supply plan	41%	44
Distributed energy resources – a deeper dive into customer generation, electric vehicles, electrification, battery storage, demand response, microgrids and more	68%	72
Looking at energy efficiency through different perspectives	46%	49
What's involved in forecasting how much power will be needed	31%	33
The potential role of nuclear power from small modular reactors in a zero emissions future	61%	65
Other (please specify)	19%	20
Total Respondents: 105		

Other Comments:

- Existing hourly supply (by source) and demand (by sector) of power generation in Saskatchewan as it is critical to understand this in order to understand what mix of generation is needed into the future.
- Wind & solar energy as the main way to get to a zero emissions future. SaskPowers plans re building banks of solar panels
- Bioenergy with carbon capture and storage. Convert all available coal-fired unit to CCS with fuel switching to biomass to build a negative emissions grid. This will allow SaskPower to run existing gas plants to end of life while hitting a 2035 target of establishing a net negative emissions grid. This would be an ambitious federal/provincial/private sector funding project.
- REWARDS FOR SERIOUS REDUCTION OF ENERGY USAGE!
- What fuel sources and type of SMR are being considered? Who will engineer and build the SMR's ?
- Safe ways. No nuclear. smallest possible disruption of and footprint on environment.
- Nuclear waste
- What is coming for Conventional Coal facilities and when.
- explore "run of river" generation in northern rivers
- Utilization of captured carbon projects
- I am interesting in learning about the "liabilities" associated with nuclear including the character of the lobby that works to condition government and the public.
- Permits and land use approval considerations
- How will generation be controlled to manage the intermittent nature of renewable power.
- CCS
- Decommissioning Coal Fired Power
- Reliable baseload
- How future development will ensure: low rates, reliability and sustainability.
- Energy policy in an emergency vs business as usual
- Do any of the session include adjustment of use to reduce base load requirements? Connection to other provinces? Discussion on public and private or does it stay as a Crown? Implications?.
- decommissioning of nuclear power, storage of nuclear waste

5. Going forward, how would you like to receive information from SaskPower and/or provide further input regarding our future power system? Please select all that apply

ANSWER CHOICES	RESPONSES	
E-newsletter updates	79%	95
Online updates (SaskPower website/blog)	34%	41
Social media (SaskPower Twitter/Facebook)	15%	19
Virtual information sessions	48%	58
Hybrid information sessions (both virtual and in-person at the same time)	31%	37
Pop-up in-person future power system site offices around Saskatchewan	10%	13
Public advisory committee	13%	16
I'll reach out to SaskPower if I need more information or have feedback	5%	6
I don't want to receive or provide further information	0%	0
Total Respondents: 119		

6. From your perspective, who else should we include in these future power system planning sessions and initiatives?

- Tribal Councils, FSIN, 74 Indian bands all inclusive
- businesses, consumers, general public, local government authorities, environmental groups, indigenous and other residents who currently struggle with reliable and low cost power.
- A commitment to net-zero by 2050 at the very latest
- Youth, Indigenous leaders, those who recognize the urgency of shifting to renewable power & electrifying everything as the foundation of a sane and smart response to climate change.
- Representatives from large energy consumption corporations
Representatives from small scale nuclear-powered generation plants

- Municipal governments
- I am not sure how you determined your first list, but I thought the combination of interested people was good. Including people that are impacted will be good.
- Universities, SaskPoly
- Energy procurement folks from industrial customers
- Nuclear energy technical experts and operators.
- All residents of Saskatchewan
- Focus must be on a plan that arrives at net zero or net negative emissions by 2035 to align with national ambitions and international obligations under a Net Zero 2050 target.
- The users and potential users
- Unsure
- I believe those that work for Sask Power should also be included in the planning sessions and joint management committees to plan the net zero pathway for current and future employees.
- THE SOLAR INDUSTRY WORKERS AND BUSINESSES WHO WERE "THROWN UNDER THE BUS" SEVERAL YEARS AGO BY THE PROVINCIAL GOVERNMENT WHEN THE NET-METERING PROGRAM WAS ABRUPTLY CANCELLED.
- Federal government liaison
- I don't know
- CSIS ... if you don't talk to contract ne Blair Murdoch... 780-933-0899. Then I'd at least feel better if you talked to the men and women who are concerned with our national security. The most important infrastructure we have is our Grid. If it's not done right and protected, everything else collapses if it's attacked or brought down... so please talk to CSIS.
- First nations and industry
- Especially First Nations
- how to achieve carbon neutrality in electricity generation by 2035
- Members of Indigenous communities, university/Sask polytechnic students or project groups, members of the health community, members of farming communities
- Open minded people that will be willing to honestly look at alternatives that may not be popular, but will work in the best interests of our province and Canada.
- a representative cross-section of users and customers should be enough to do most planning. Try to pick people who have a belief in the "Crown Corporation" model.
- Management of large power consumption sites

- The citizens of Saskatchewan, government officials, SaskPower employees, 3rd party research/university/private with relevant expertise (both critique and collaboration should be welcome), special interest groups, accountants/economists, union representatives, municipal representatives
- First Nations and Metis communities need to be more fully involved in the conversation
- A look at what other jurisdictions around the world with similar climates are doing to meet their energy needs.
- First Nations, landowners
- Major industrial/commercial customers, farmers, EV builders, environmental groups
- Our youth at the high school level would be an opportunity to engage our youth.
- Consideration of how the system will be dynamically controlled to meet load is important.
- Government representatives, provincial and federal. We need support and cooperation through all levels of government.
- First Nations. Parks/Public Space users/Recreation groups, Farmers, Cities, RMs, Environmental groups.
- Leave lobbyists and special interest groups out. Avoid eco-terrorists and critical race theory.
- Timelines for coal plant closures and alternate generation sources implementation or power imports
- young people – students
- Community members. Actually listen to community organizations and members.
- Engineering Consultants that are directly involved in the design of energy systems and transmission
- I feel like most of these sessions are populated by special interest groups. I'm not sure how much of an "average joe" and unbiased opinion you're getting.
- Municipal planning reps rural and urban, school boards (education and public infrastructure), university and research interests, business owners, farmers, innovators, public awareness campaigns to reduce consumption, conserve energy and reduce emissions for a sustainable economy.
- Reach out to academic partners to assist you in planning/modelling long term goals and how to achieve them, as well as to keep them informed about plans

- Degeneration opportunities?
- 1. Federal Government 2. Provincial Government 3. Manitoba Hydro 4. Cameco
- Chief and council
- More rural people . City needs are different from rural needs .
- Current participants are adequate.
- Climate Justice Saskatoon: climateactionsk@gmail.com
- You should include the SPC individuals or departments with the energy planning expertise that can understand and adequately answer some of the questions posed...
- SMRs manufacturers; Renewable energy providers; First Nations; and Environmentalists.
- First nations
- <https://www.electrochaea.com/>; <https://amberkinetics.com/> and other Global technology companies - to see how they might fit.
- Local MLAs
- Traditional Land users. Hunters, fishermen and farmers.
- Unsure.
- Communities affected by changes to current power production and future generation
- Higher education institutions (SKPoly, U of R, U of S,); more input from Northern Communities and residents.
- large industrial/commercial users
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7. Do you have any other comments you'd like to share?

- Time has come for revenue sharing of RESOURCES.
- To avoid creating unrealistic expectations, clearly state any aspects of that have already been finalized and will not be subject to change. Transparency is key!
- More detailed information on SaskPower's existing supply and demand mix as well as time of day pricing (not just average cost of generation) is needed to meaningfully participate in these forums.
- I recommend following energy journalist David Roberts' work -- either his newsletters or his podcast at volts.wtf -- to get a sense of how quickly energy policy is shifting in the US and how fast it needs to shift here. Start here: <https://www.volts.wtf/p/on-climate-policy-theres-one-main>
- We understand that solar-generated power is not available for SaskPower's biggest demand period, 6 pm to 9 pm. What we do not know

is how the rest of the day breaks down. What is the demand from 4 pm to 6 pm, compared to 6 pm to 9pm? What is the demand from 11 am to 2 pm?

- I would like to encourage SaskPower to consider the benefits of long-term storage opportunities
- One of the things you identified in your "what we heard" summary was, "Recognize tensions exist around the use of nuclear power". Seriously? What form of energy generation is universally embraced, doesn't have pros and cons or proponents and opponents? I'm not sure why you felt the need to emphasize this point, but the fact you did makes me fear that SaskPower is already laying the groundwork to discount nuclear energy as an option, which is very disappointing. Please stop pandering to anti-nukes or those who think we can somehow run the entire grid on intermittent renewables just because their supporters yell the loudest.
- I am in contact with technical advisors to the federal government on pathways to Net Zero 2050 and specifically transitioning the electricity generation sector to net zero by 2035. I can contribute to a meaningful discussion of cost-effective pathways for SaskPower to arrive net negative emissions by 2035 while minimizing stranded assets and providing a foundation of the economy of the province under a Net Zero 2050 pathway.
- I don't like to see anymore privatizing of electrical system.
- No
- YES, LATER.
- Sharing actual power output that we are getting from renewable sources may cause more informational dialogue from others. From a 10 MW solar or wind facility are we typically seeing X% of total output per year. Knowing if we only average 20% of total output may put this into greater perspective.
- Nothing specific
- Although climate change is very real and concerning it has very little to do with CO2 as we are manipulated to believe. If you want to understand climate change, the politics and long term considerations for our provincial and national security. I would enjoy teaching you all, and I would bet together we could make a much more resilient grid for our children.
- No
- If possible read the effects of the nuclear plant accident in Japan. There is a beautiful mountain there where people cannot go anymore because

it's contaminated. Even the place where the Olympic games took place was contaminated. Thank you for accepting comments

- Experts should plan the system, not the public
- Appreciate the efforts that SP puts into stakeholder consultation...very helpful and informative.
- I look forward to learning more about SaskPower's efforts for a cleaner and reliable future.
- I would like to find out distributed power systems and how saskpower sees the future of such systems. Who should i get in touch with? Please email me a info@hayasatechnologies.com
- I appreciate the opportunity to express my opinions. Thank you!
- Keep the politics out of Sask Power, and forever preserve it as a healthy CROWN corporation.
- Improve the net metering rate or even better make it a ratio (1:1) rather than a set monetary rate. You are missing an opportunity with residential solar
- 1. An independent peer review conducted of the plans for the SMNR technologies you are promoting. Do you have such evidence? 2. Adequate parliamentary debate, addressing the sanity of building new nuclear reactors when there are no approved long-term storage facilities anywhere in Canada for the radioactive waste from existing reactors, and the costs from initial planning through decommissioning. 3. Has the government and SaskPower considered the risks involved in using "advanced" nuclear fuels? Both the use of plutonium and enriched uranium as fuels will require new levels of safety and security beyond those required for existing CANDU reactors. The Inter-Church Uranium Committee Educational Cooperative is an excellent resource on these issues and has participated in Canadian Nuclear Safety Commission hearings (and its predecessor bodies) for over 40 years.
- Would be interested in hearing from the politicians and their intent. We need more leadership on this initiative.
- Thanks for the opportunity!
- Nuclear options, particularly small nuclear reactors options as being currently advanced, are HIGH RISK OPTIONS. While they may currently appear as "reasonable" financially and environmentally, they will quickly be regarded as another "liberal" liability. Costs and environmental risks will be increasing regarded as even more serious than they are today particularly as Christian churches and other civil society orgs increasingly take up the moral and evangelical call of the Japanese Catholic Bishops

in their 2020 book called Abolition of Nuclear Power: An Appeal from the Catholic Church in Japan as well as the calls from the Vatican in this regard.

- Really appreciate the process and information given by SaskPower. I really think people need good information when it comes to nuclear power, because so much misinformation and misconception exists that drives anti-nuclear sentiment. Is there potential to get the CNSC or WNA involved in providing some expert opinion and fact-based information?
- SaskPower has a great opportunity to be leaders in North America. Let's show the world how to create a sustainable and robust grid using people, resources, and technology right from our own back yard. I'd love to be directly involved in the solutions available at the residential level; solar, geothermal, micro-grids, nuclear. Incentives beyond just feeling good about doing my part to reduce GHG would be great too!
- Be more frank about the politicalization of this process. How are Sask Power's choices affected more by political pressure rather than necessary changes as they spelled out in the IPCC report.
- Nothing comes to mind
- I would like to see comparisons of total cost and emissions for various solutions. How far can we transport hydro from Manitoba? What is the possibility of stored hydro in Sask. What is the potential of combined solar, wind and geothermal? How can we encourage many producers, home farm and business?
- The last session was not that valuable. It was a lecture of what SaskPower already plans on doing instead of a discussion with participants.
- Keep up the discussions,
- Focus on practicality, not the politics of green energy! (Cost, Reliability, Benefits, Total environmental impact, Life Cycle Costs, etc.)
- We should consider opportunities for significant energy conservation measures in the province to REDUCE the amount required. Then diversify energy sources from wind, solar, etc. to further decrease demand and THEN consider what is required for base load. FOr example, can we do it with power purchased from Manitoba? Could we have one larger reactor in Estevan that allows us to sell power to the US? Scattering reactors around the province just doesn't make sense from so many perspectives. When people complain about power lost over distance it is just an insane argument. We get power from MB and no one complains. Also, a larger singular plant can no doubt create much more than we need so just consider the loss in the calculation. I hope you really give public

consultation and that from universities and non-corporate entities some weight in this and that the government of the day can put aside their personal gains for better decision-making for the Saskatchewan people.

- No.
- No
- CCS technology is only way to net zero !
- No, thanks.
- No
- While interesting, I found the SaskPower facilitators to be relatively less informed or educated on future power related technology, terminology opportunities etc. Unfortunately my questions were not understood let alone answered.
- Saskatchewan needs solutions of competitive electricity rates and less GHGs emission: the combination of SMRs and renewable energy including hydro, solar, wind, geothermal, biomass etc.
- I think this is an excellent start
- Power pricing for different options of power generation is of interest as well.
- None at this time.
- None
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