

PLANNING A SUSTAINABLE POWER FUTURE

WHAT'S IMPORTANT TO YOU?

Energy Management Task Forces
Wednesday, May 5, 2021

TRANSFORMATION BRINGS A SHIFT IN PERSPECTIVE



TODAY'S CONVERSATION

- How we do business is changing.
- What's driving the transformation?
 - Significantly reduce GHG emissions
 - Modernize the power grid
 - Renewed customer focus
- We want to understand your priority planning considerations. What matters to you?



PRIORITIES

Reduced emissions

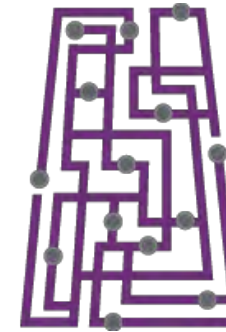


Good news: We'll reduce emissions by 50% from 2005 levels by 2030. We're now aiming for net zero emissions by 2050.

Increased renewables

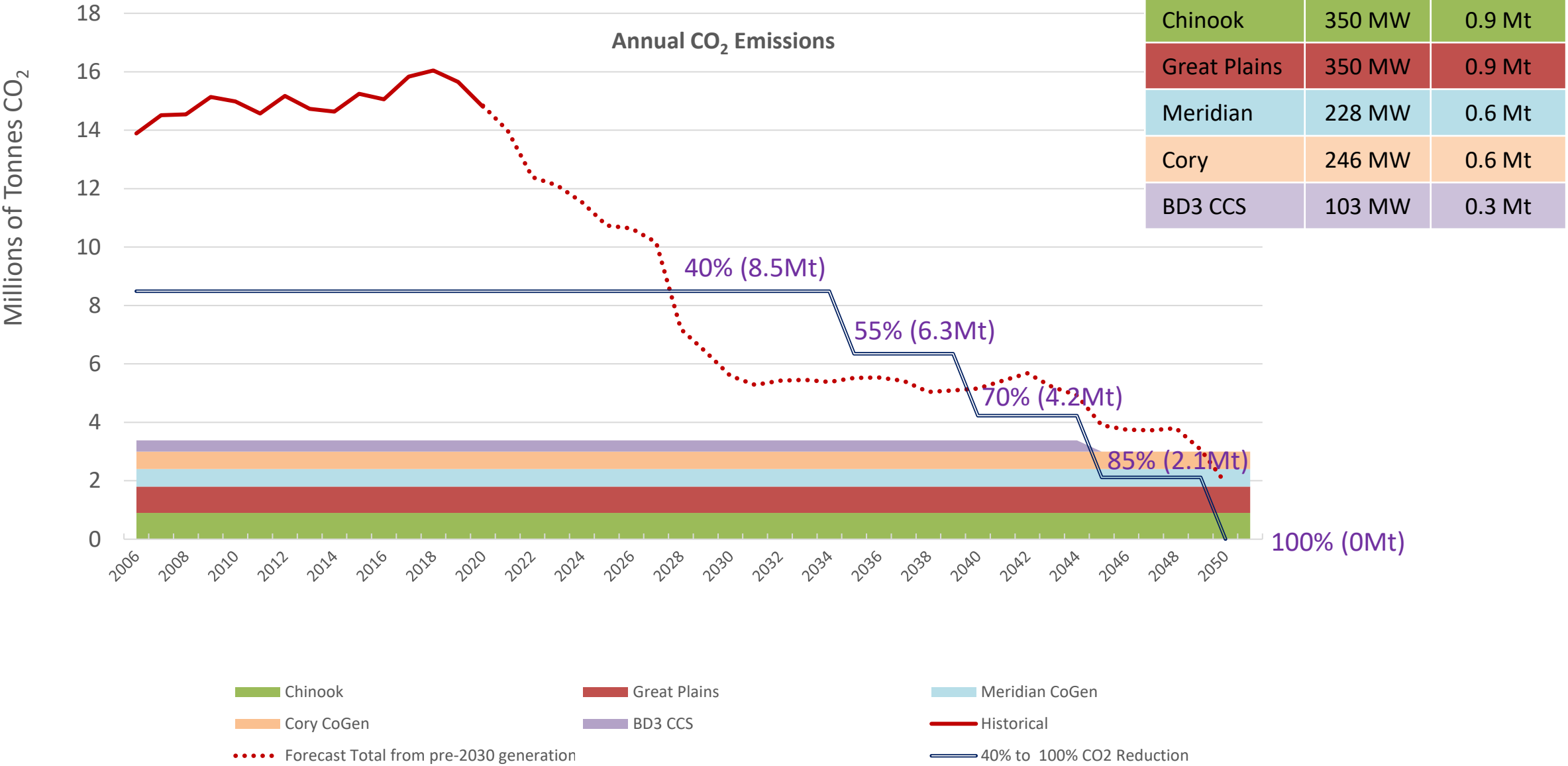


Modernized grid

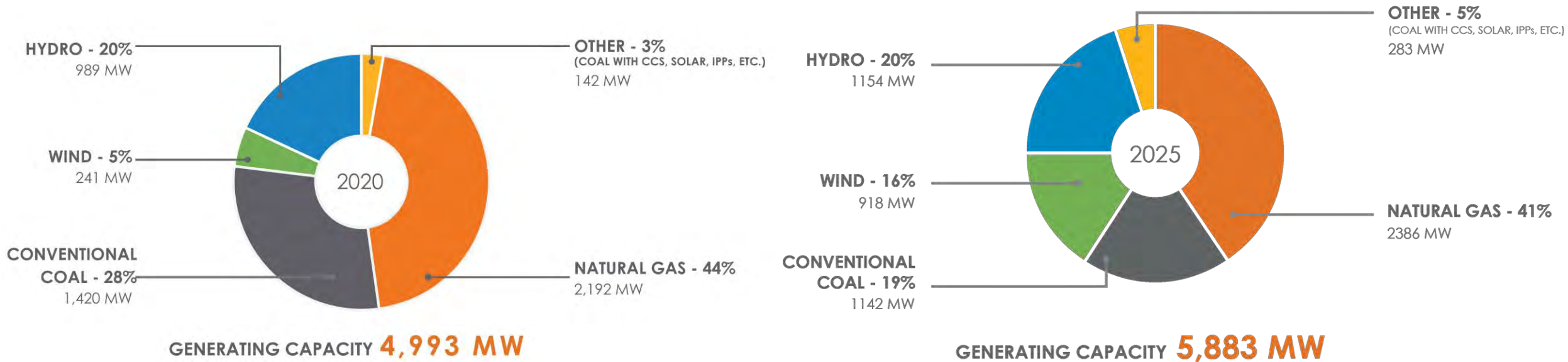


SaskPower's mandate: provide **reliable, sustainable, cost-effective** electricity to our customers and the communities we serve.

FORECASTED EMISSIONS PERFORMANCE



SASKATCHEWAN'S POWER MIX



ROLE OF RENEWABLES

Goal - reducing GHG emissions by 50% from 2005 levels by 2030

- Wind energy triples
- Planned 60 MW of solar by 2021
- Small scale hydro/hydro imports
- Biomass & geothermal



Expand and Integrate Renewables

Planned 2021-2030 Additions*

Type	MW
Wind	685
Imports	190-590
Solar	97
Flare Gas	90
Biomass	7
Geothermal	5
Total	1,074 to 1,574

Utility Scale Additions in next three years:

2021:

- Riverhurst Wind (10 MW)
- Golden South Wind (200 MW)
- Blue Hill Wind (175 MW)
- Highfield Solar (10 MW)
- MLBC Biomass (7 MW)

2022:

- Awasis Solar (10 MW)
- Pesakastew Solar (10 MW)
- Foxtail Grove Solar (10 MW)
- MH Import (190 MW)

2023:

- New Wind (up to 300 MW)
- DEEP Geothermal (5 MW)

**This chart reflects current plans. SaskPower reviews and adjusts these plans according to what we learn from each project. For example, solar additions could increase after 2021 as technology evolves and we better understand how solar generation operates on our system.*

EVALUATING ALL POWER SOURCES: KEEP OPTIONS OPEN

- Available supply options: natural gas, coal with carbon capture and storage, cogeneration, hydro imports (new transmission lines), wind, solar
- Emerging supply options: energy storage, hydrogen, hydro in Saskatchewan, customer generation, biomass, flare gas, geothermal, nuclear power from small modular reactors



PLANNING CONSIDERATIONS: WHAT'S MOST IMPORTANT TO YOU?

On the virtual whiteboard, please indicate which planning consideration is most important to you as a SaskPower customer?

What do you think SaskPower should prioritize?



Reliability	GHG Emissions	Jobs/ Economic Development
Power Rates (what you pay on your bill)	New Technology/Innovation	Energy Self-Sufficiency /Independence

GRID MODERNIZATION

- Increase visibility, control and automation of the power grid
- Today: improved safety, reliability, efficiency and adaptability
- Future: two-way energy services and enhanced customer participation

“We are working to modernize a 90-year-old power system in the next 10 years to accommodate two-way power flow and support more customer generation.”

- *Tim Eckel, Vice-President
Asset Management,
Planning & Sustainability*



BATTERY ENERGY STORAGE SYSTEM

- Storage needed to maximize use of wind and solar
- Planning a 20-megawatt (MW) system at Fleet Street Switching Station in NE Regina



Questions so far?

May 5, 2021



GENERATE YOUR OWN POWER

Power Generation Partner Program

- Sell all the power you generate to SaskPower
- All SaskPower customers are eligible
- Two program streams: renewable & carbon neutral

Net Metering

- Use the power you generate to offset your own consumption – up to 100 KW
- All SaskPower customers are eligible
- No cap or contract term
- Excess energy credited at 7.5 cents/kWh
- Program consultation expected summer/fall 2021



Electric Vehicles (EVs) and SaskPower

3 Focus Areas

1. Education & Awareness

- Federal funding for awareness campaign
- Update SaskPower's website with updated information
- Build partnerships

2. Infrastructure

- Looking how SaskPower can support the development fast charging stations
- Engaging with stakeholders interested in holding, developing, owning, and/or operating fast charging stations

3. Load Management

- Smart Charge Sask EV Charging Study ongoing
- Implement pilot projects
- Assess different load management technologies
- Deliver load management program



SMART METER PROGRAM BENEFITS

- See what's happening across the electrical system in real time
- Supports customer self-generation (wind/solar)
- Shorter power outages
- Real-time meter reads
- More control and access to your own power



What's next?

Virtual dialogues - May 2021 (and more to come)
Net Metering program conversations - Summer/Fall 2021
Conversations about nuclear power from SMRs
What else do you want to know or talk about?

Discussion with EMTF, May 5, 2021



THANK YOU FOR PARTICIPATING!
FIND OUT MORE AT
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