

OUR PATH TO 2030

REDUCING EMISSIONS BY MORE THAN HALF



A MESSAGE FROM OUR PRESIDENT

In 2015, SaskPower set a goal to decrease our greenhouse gas emissions by 40 per cent from 2005 levels. Nearly seven years later, we're on track to exceed this goal. We've now changed our target to a 50 per cent reduction by 2030. The projects that will get us there are taking shape in communities throughout Saskatchewan.

Achieving our target required a strategic shift that took many years of planning, stakeholder consultation and environmental study. This applied to each individual power facility being built and each power line to connect it to the power grid. Creating positive, meaningful relations with Indigenous businesses and communities is also a top priority during this process, and today we're proud to have partnered on several projects underway.

The purpose of this publication is to provide a look at the projects that are helping us reach our emissions goals. These projects represent a remarkable achievement, especially during a global pandemic where supply chain issues, additional restrictions and overall uncertainty can cause significant obstacles.

Thank you to the communities, partners, contractors and stakeholders who've made these projects a reality. You've been part of building a legacy that will ensure we have the power we need for generations to come.



Troy King
Interim SaskPower President and CEO

Centennial Wind Power Facility
Swift Current, Saskatchewan

OUR PATH TO 2030

We're on track to reduce greenhouse gas emission by at least 50 per cent from 2005 levels by 2030. We're increasing our renewable generation to help us get there. By the end of 2021 between 26–30 per cent of Saskatchewan's power will come from renewables. By the end of 2024 that increases to 30–34 per cent.

CHOOSING A GENERATION OPTION

We balance reliability, cost and emissions when deciding what type of power to add to the grid. Renewables don't produce emissions, making them an important part of our future supply mix. But we can't rely on them alone. When the sun doesn't shine or the wind doesn't blow, they don't produce power.

COST

RELIABILITY

EMISSIONS

SELECTING A LOCATION

Siting new power facilities is a complex process. We must consider and balance many factors in arriving at our final location. Some of these factors include:

ENVIRONMENTAL IMPACTS

INDIGENOUS KNOWLEDGE

SOCIAL USE OF LAND

TECHNICAL NEEDS

LAND USE PLANS

COST

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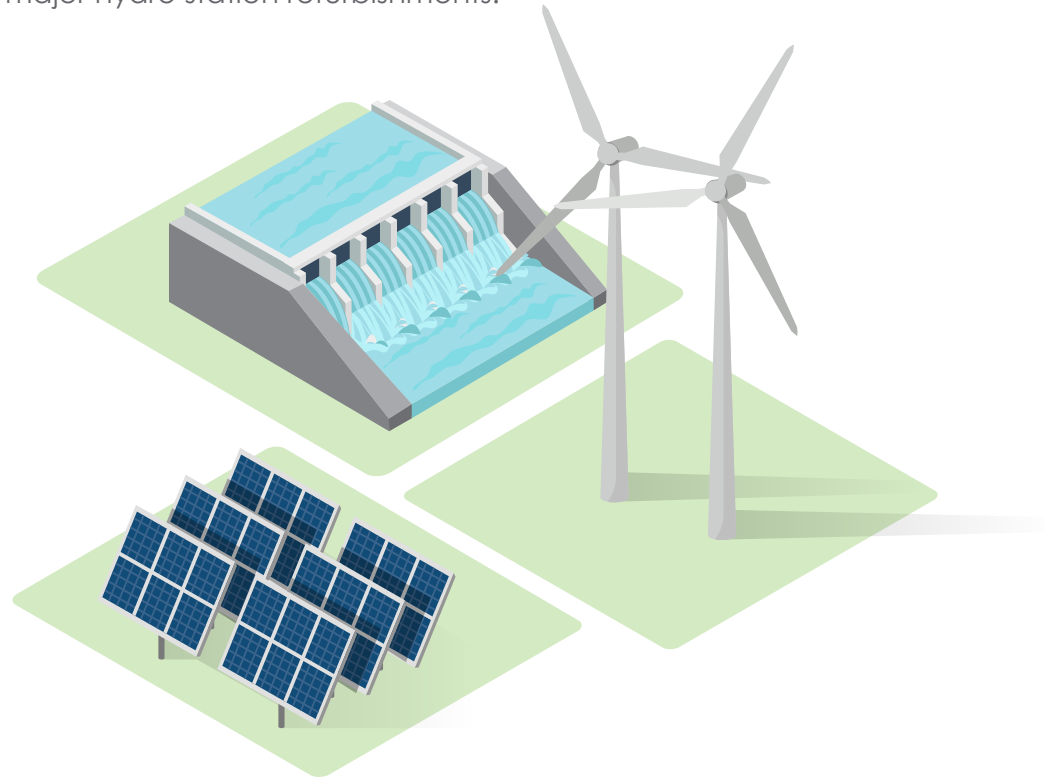
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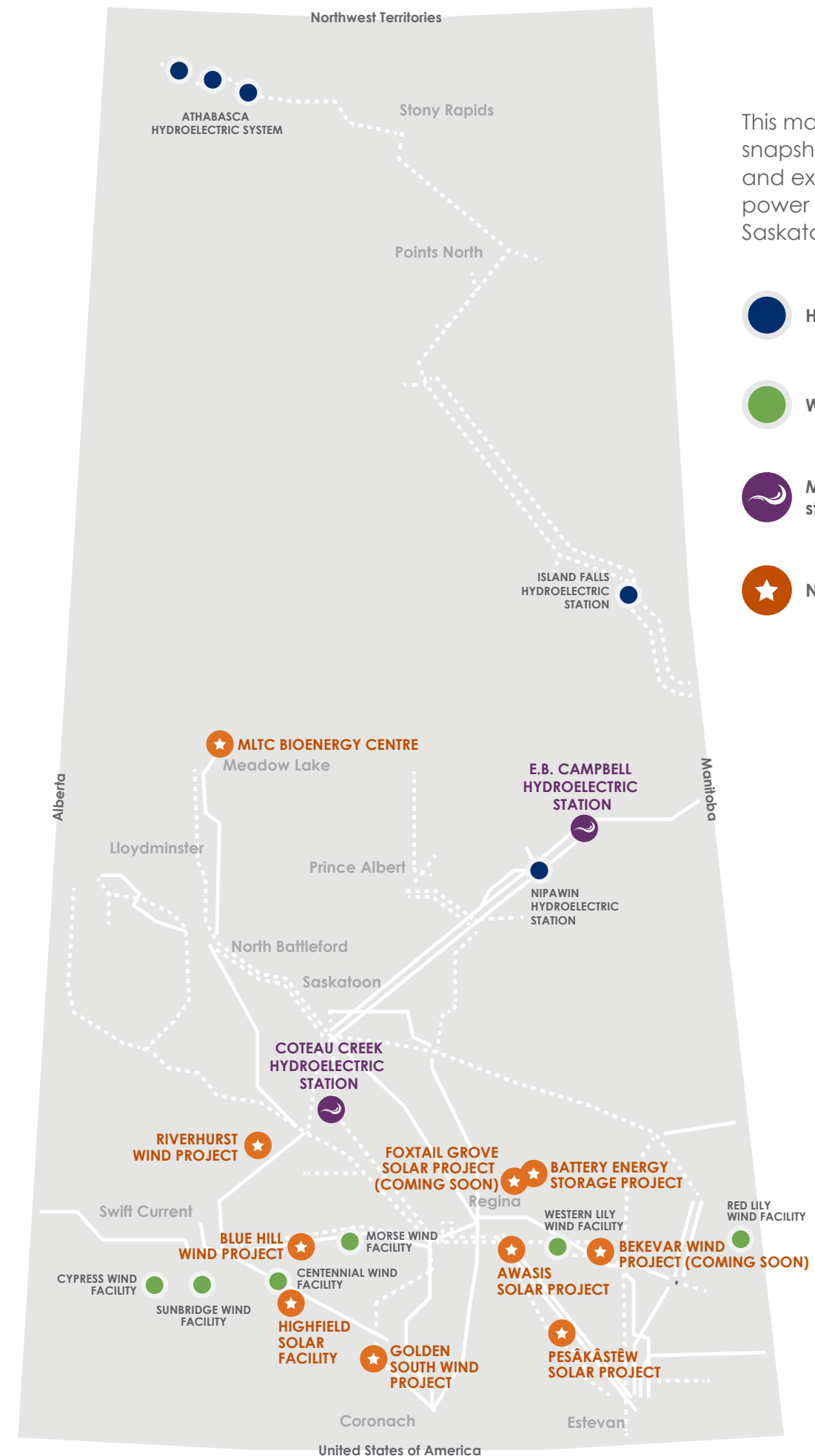
SaskPower has approval to proceed with eight new zero-emissions projects, as well as two major hydro station refurbishments.



MAJOR PROGRESS

With these new facilities, SaskPower is making history by:

 <p>Nearly tripling the amount of wind generation in the province</p>	 <p>Adding the first utility-scale solar projects in Saskatchewan</p>	 <p>Increasing renewable power generation from 1,082 megawatts (MW) to 1,707 MW</p>
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This map provides a snapshot of all new and existing renewable power facilities in Saskatchewan.

NEW WIND & SOLAR POWER FACILITIES

RIVERHURST WIND FACILITY

10 MW

RIVERHURST, SASKATCHEWAN

OWNED/OPERATED BY CAPSTONE INFRASTRUCTURE

COMPLETE: DECEMBER 2021

These three new turbines produce enough power for 5,000 homes.

We are adding wind in a staged approach to understand its impact on our power grid as a whole.

An aerial photograph showing a vast solar farm in the foreground, with rows of solar panels stretching towards the horizon. In the background, a large number of wind turbines are visible across a flat, open landscape under a cloudy sky.

HIGHFIELD SOLAR FACILITY

10 MW

SOUTHEAST OF SWIFT CURRENT, SASKATCHEWAN

OWNED/OPERATED BY SATURN POWER

COMPLETE: OCTOBER 2021

The new Highfield Solar Facility stands with the existing Centennial Wind Facility extending over the horizon. The facility marked a major milestone for the province as the first utility-scale solar project in Saskatchewan!

On sunny days, 30,000 solar panels will generate enough power for 2,500 homes. Compare that to the typical solar-generating residential customer who has only 20 panels on average.

GOLDEN SOUTH WIND PROJECT

200 MW

ASSINIBOIA, SASKATCHEWAN

OWNED/OPERATED BY POTENTIA RENEWABLES INC.

COMPLETE IN EARLY 2022

Over the 25-year lifespan of the facility, an estimated \$45 million will be injected back into the local economy. At the peak of construction, 150 workers were on site, with nearly half of them coming from Saskatchewan.

To build 50 turbines on schedule, crews worked through the night over the winter months. They did this to take advantage of calmer skies, which are required to safely lift the rotors into place.



Prior to 2021, Saskatchewan had a total of six wind facilities that produce 241 MW. Adding the Golden South Wind Facility nearly doubles SaskPower's wind capacity! It's our largest to date with the ability to generate 200 MW – enough power for up to 100,000 homes.



Although the facility covers 34,000 acres of land, it won't impact farming operations in a major way. Farmers in the region will be able to safely farm right up to the base of the turbines.

BLUE HILL WIND PROJECT

175 MW

HERBERT, SASKATCHEWAN

OWNED/OPERATED BY ALGONQUIN POWER

COMPLETE IN EARLY 2022

To mitigate environmental concerns with the construction of wind farms, such as birds and bats flying close by, SaskPower works with producers to ensure the facility is built in an area less likely to disrupt migratory paths and existing vegetation.



For every new facility, SaskPower must connect it to the power grid using substations and transmission lines. For Blue Hill, SaskPower built a new substation and power line. Before doing so, we engaged with landowners and completed environmental studies to minimize impacts to our neighbours and the environment.





Wind is a zero-emissions supply option, but there are environmental impacts we must still mitigate. One of those is what happens when the facility reaches the end of its lifespan. In this case, the producer must:

- Meet decommissioning and remediation requirements in Saskatchewan
- Meet landfill bylaws. Wind towers and blades also have potential salvage value meaning less impact on landfills
- Meet landowner lease agreements



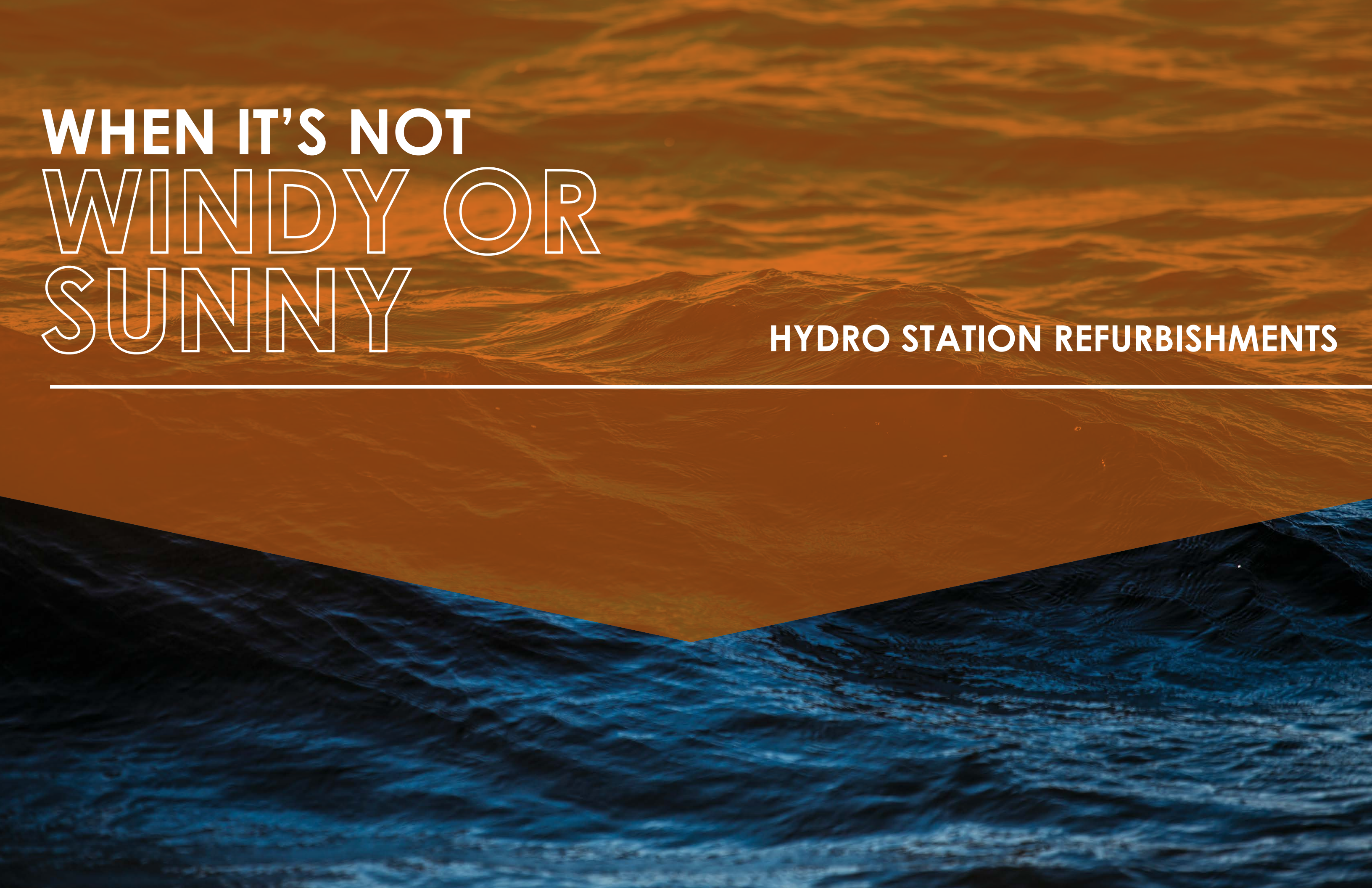
When the Blue Hill project comes online, this 35-turbine facility will provide enough power for 70,000 homes.

SASKATCHEWAN'S FIRST BATTERY ENERGY STORAGE PROJECT

REGINA, SASKATCHEWAN



In 2022, construction will get underway in Regina. We're excited to better understand the potential for energy storage in Saskatchewan. Once built, it'll be capable of powering 20 MW for up to one hour.



**WHEN IT'S NOT
WINDY OR
SUNNY**

HYDRO STATION REFURBISHMENTS



E.B. CAMPBELL

LIFE EXTENSION

NIPAWIN, SASKATCHEWAN

Twenty per cent of Saskatchewan's power comes from hydro. Hydro is reliable and produces no GHG emissions. That's why we're working hard to preserve our existing hydro facilities.

E.B. Campbell Hydroelectric Station was commissioned in 1963 and is nearing the end of its operational life. SaskPower is refurbishing Units 1-6, which will give the plant at least 50 more years to generate power for 289,000 homes. Overhauling this important station will cost significantly less than building new hydro generation. The work is expected to be complete in 2025.

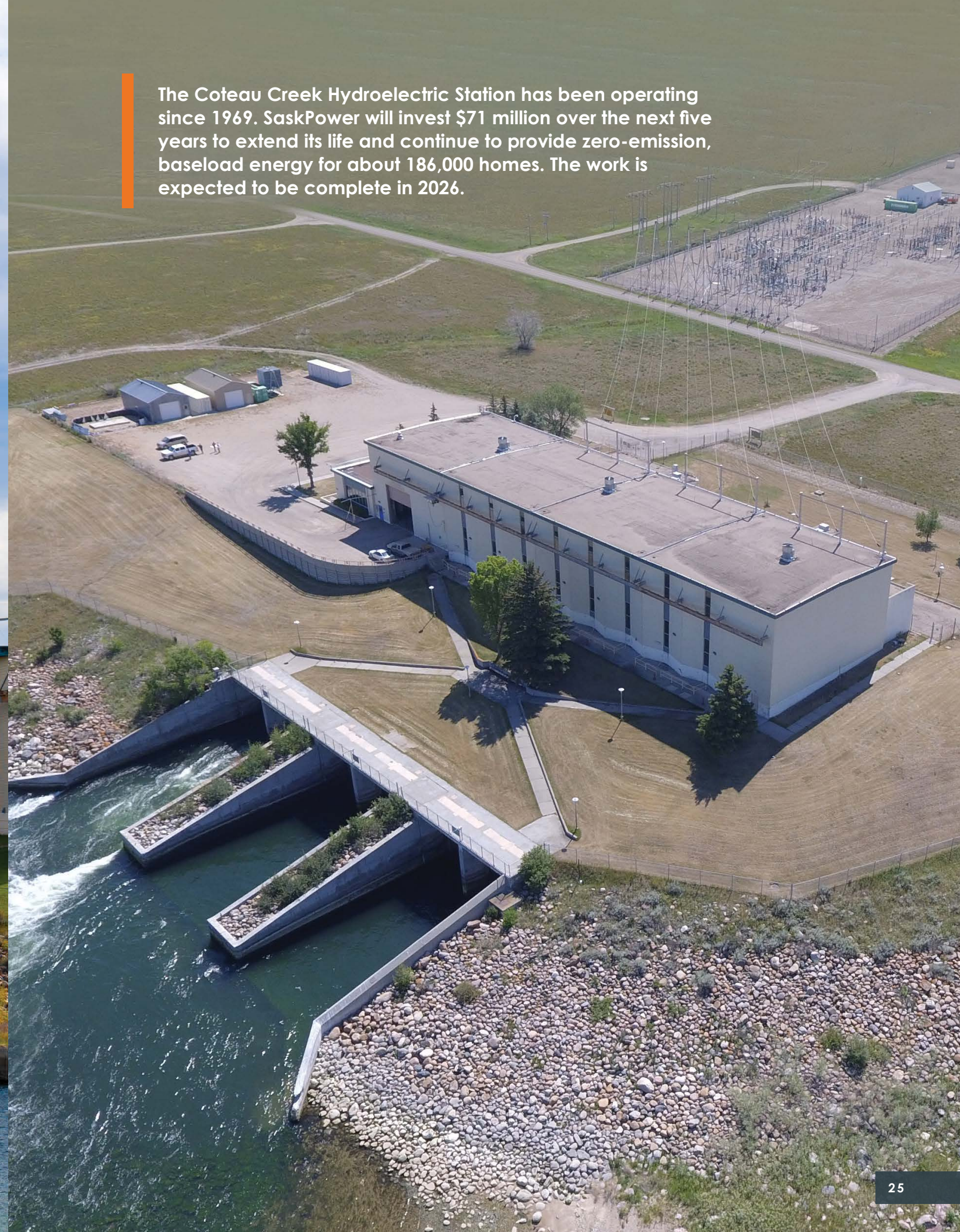
COTEAU CREEK

LIFE EXTENSION

ELBOW, SASKATCHEWAN



The Coteau Creek Hydroelectric Station has been operating since 1969. SaskPower will invest \$71 million over the next five years to extend its life and continue to provide zero-emission, baseload energy for about 186,000 homes. The work is expected to be complete in 2026.



WHEN IT'S NOT WINDY OR SUNNY

NATURAL GAS POWER FACILITIES



CHINOOK

NATURAL GAS POWER STATION

353 MW

SWIFT CURRENT, SASKATCHEWAN

COMPLETED: DECEMBER 2019

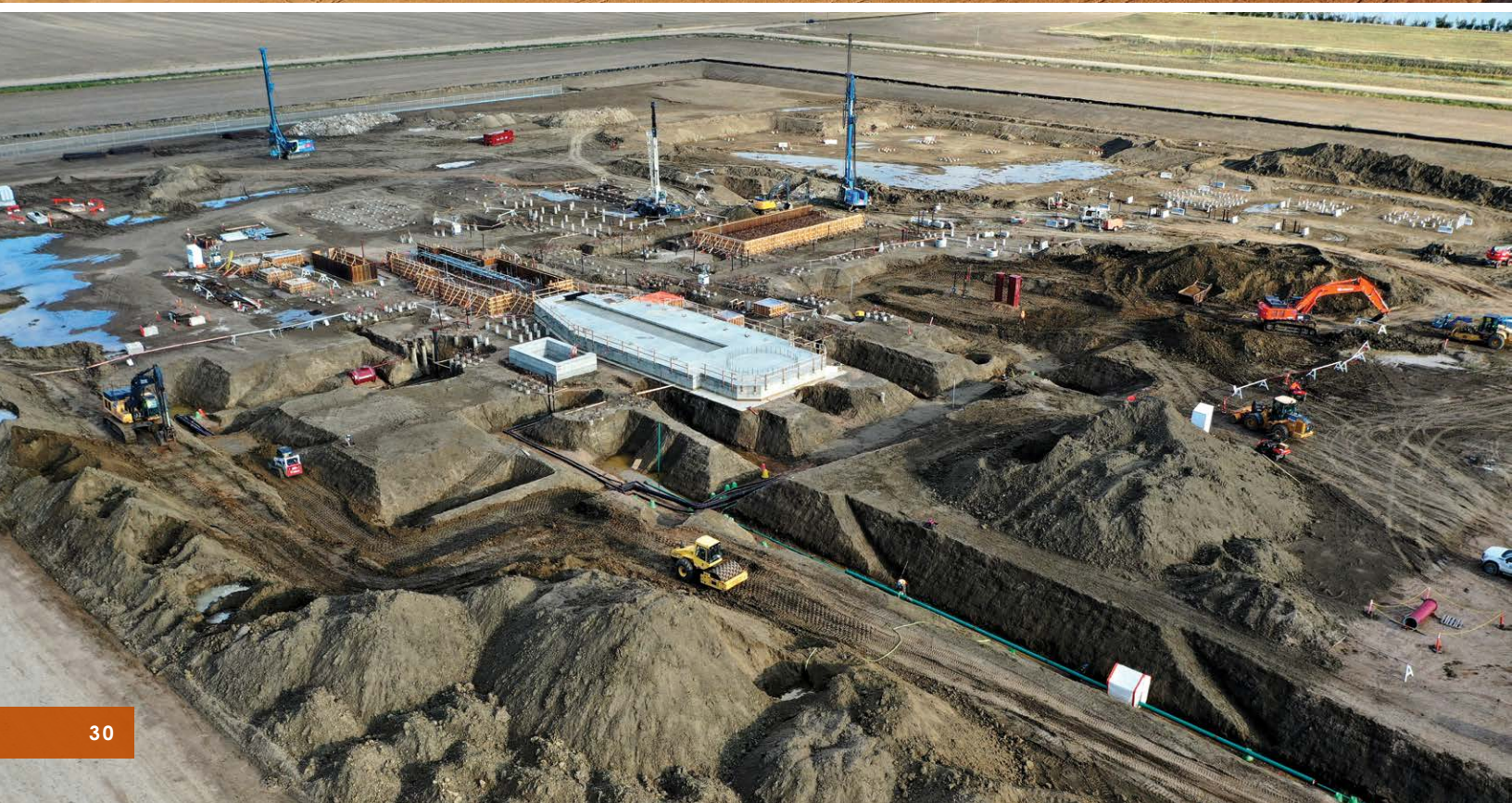
Our path to halving emissions from 2005 levels by 2030 includes natural gas. Natural gas produces less than half of the emissions of a conventional coal-fired power plant and can provide the steady power source needed to support the wind and solar generation coming online.

GREAT PLAINS

NATURAL GAS POWER STATION

360 MW
MOOSE JAW, SASKATCHEWAN
COMPLETE BY 2024

Great Plains will provide power
for about 360,000 homes in
Saskatchewan once complete.



SaskPower continues to engage
with Indigenous rightsholders and
local stakeholders throughout
the project to ensure they're
involved to the greatest extent
possible.



SaskPower hosted members of the Nekaneet First Nation and community of Moose Jaw to celebrate the kickoff to construction. Construction on the power station officially started in March 2021.



Chief Alvin Francis
at the construction kick-off.



Former Moose Jaw Mayor, Fraser Tolmie
and Former SaskPower President and CEO,
Mike Marsh.



