Economic Benefits

Construction and operation of the Centennial Wind Power Facility also has a significant impact on the Saskatchewan economy:

- $70 million of Saskatchewan goods and services were used during construction
- $19 million in provincial sales tax will be paid during construction and operations
- $5 million in Saskatchewan capital tax will be paid during the project’s life
- $6 million in land lease payments will be paid during construction and operations
- 200,000 person-hours of Saskatchewan tradespeople were utilized during fabrication and construction
- Over 20 construction and service contracts were awarded to Saskatchewan companies
- 12 new, full-time, permanent employment positions were created

The Government of Canada will provide approximately $54 million over 10 years to the Centennial Wind Power Facility through the Wind Power Production Incentive Program.

A Lasting Environmental Legacy

The Centennial Wind Power Facility is the cornerstone of SaskPower’s commitment to introduce new electricity sources that have a low impact on the environment. Our long-term plans also call for a mix of energy conservation programs and new environmentally sensitive generation projects.

As we evaluate generation options into the future, SaskPower will continue to pursue wind power where it makes economic and environmental sense.

Our Commitment to Safety

Safety is part of everything we do at SaskPower and the responsibility for doing business safely is shared by employees across the corporation.

POWERING SASKATCHEWAN

Centennial Wind Power Facility

Generating capacity—nominal 150 MW
Generating capacity—nameplate 149.4 MW
Mean annual output 540 GWh
Mean annual wind speed 30 km/hr

Wind turbine characteristics

- Number and Model: 83 Vestas V80
- Manufacturer: Vestas Wind Systems A/S
- Rated output: 1.8 MW/turbine
- Operational wind speed: 15 to 90 km/hr
- Full power achieved at: 50 km/hr
- Nacelle height: 4 metres
- Nacelle width: 3.3 metres
- Nacelle length: 14.6 metres
- Nacelle weight: 70 tonnes
- Number of blades: 3
- Blade length: 39 metres
- Rotor diameter: 80 metres
- Rotor weight: 35 tonnes
- Rotor speed: 17 revolutions/minute
- Speed at blade tip: 256 km/hr
- Overall height to blade tip: 107 metres

Support towers

- Height: 67 metres
- Diameter at base: 4 metres
- Diameter at top: 3.3 metres
- Weight: 117 tonnes
- Anchor bolts: 144
- Tower Manufacturer: Hitachi Canadian Industries (Saskatoon)

Glossary

- Kilowatt (kW): A unit of bulk power; 1,000 watts.
- Kilowatt hour (kWh): A unit of bulk energy; 1,000 watt hours. The measurement is generally used for billing residential customers.
- Megawatt (MW): A unit of bulk power; 1,000 kilowatts. The unit generally used to describe the output of a commercial generator.
- Gigawatt (GW): A unit of bulk power; one billion watts or one million kilowatts.
- Kilovolt (kV): A unit of pressure, or push, of an electric current; 1,000 volts.

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Saskatchewan is known for the wide-open prairie, and for the wind that blows strong and free.

In 2005, as the province celebrated its first century, SaskPower created a legacy – the Centennial Wind Power Facility – that not only harnesses the wind, but also brings long-lasting environmental and economic benefits to the people of Saskatchewan.

**Generating Capacity**

SaskPower’s Centennial Wind Power Facility is a milestone in wind power generation in Canada. At the time it was commissioned in March 2006, the 150-megawatt (MW) facility was the largest operating wind power facility in the country, generating enough electricity to supply about 69,000 homes.

**Location**

The Centennial Wind Power Facility is located approximately 25 kilometres southeast of Swift Current, Saskatchewan in the Rural Municipality of Coulee (RM #136).

**Control And Transmission**

Each of the 83 wind turbines at the Centennial Wind Power Facility are connected via an underground cable to overhead 34.5 kV distribution lines, which connect to the province-wide electrical grid.

This is the third wind power facility in the province. SaskPower operates the Cypress Wind Power Facility, which has 16 turbines that are able to produce 11 MW of electricity. SaskPower also purchases 11 MW of electricity from the SunBridge Wind Power Project.

**Visiting the Centennial Wind Power Facility**

Our designated point of interest is the best place to see the Centennial Wind Power Facility. It is located on grid road #628 near the northern tip of the facility. This is your best opportunity to view the turbines in operation. For your own safety, and out of respect for local landowners, please do not trespass on private property where the wind turbines are located.