

# MISCONCEPTIONS ABOUT WIND AND SOLAR FACILITIES



## What's an Independent Power Producer (IPP)?

We talk about IPPs a lot. An IPP is a company separate from SaskPower that we select to develop, construct, own, operate and maintain wind or solar power generation facilities. The IPP sells the power to SaskPower.

### MISCONCEPTION #1:

## They use up prime agricultural land.

IPPs consider many factors when selecting a site for a wind or solar facility, and many farming activities can continue around operating facilities. Agricultural land is often a lower risk for development from a technical and environmental permitting perspective. That said, minimizing the use of prime agricultural land is something that IPPs often consider when selecting sites.

### MISCONCEPTION #2:

## They're expensive and have short lifespans.

The average lifespan of newer wind turbines is more than 30 years and can be even longer when properly maintained. The average lifespan of a solar facility is about 25 to 30 years.

When it comes to cost, the average cost of utility-scale solar and wind generation over their lifespan – known as the levelized cost of electricity (LCOE) – is less than other sources of power.

For example, LCOE per megawatt hour (MWh) as of February 2024:

- \$55-80/MWh for utility-scale wind power
- \$100-130/MWh for utility-scale solar power
- \$85-185 MWh for combined cycle natural gas like Great Plains Power Station.

Federal tax incentives or other forms of funding may reduce the price for both wind and solar generation.

### MISCONCEPTION #3:

## They're costly and wasteful to dispose of.

Wind turbines are made of materials that are increasing in salvage value. Up to 90 per cent of wind turbine components can be recycled after being disassembled, including much of the steel.

Recycling of solar panels is currently an emerging industry in Canada. Some provinces, such as Alberta, have even initiated pilots to help reclaim expired solar panels. We expect this industry will be fully developed by the time the first utility-scale solar facilities are to be decommissioned in Saskatchewan.

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## MISCONCEPTION #4:

### They're intermittent, which is of little value.

Renewables will help us lower our greenhouse gas (GHG) emissions and provide a cost-effective generation option. But it is true that wind and solar are intermittent sources, which is why it's important that we keep a diverse mix of generation options in the province's power system.

## MISCONCEPTION #5:

### They leave a huge carbon footprint to build.

The lifecycle (fabrication, installation, etc.) of wind and solar technology produces fewer GHG emissions than the lifecycle of power plants that use coal or natural gas. Their operation also produces no GHG emissions.

## MISCONCEPTION #6:

### Their operations are harmful to our health.

There is no evidence linking health concerns to being near solar and wind facilities. Both emit low-frequency Electric and Magnetic Fields (EMFs) — the kind that are present in most of the technology we use every day.



### What are we doing to protect birds and wildlife?

To lower impacts from the construction and operation of wind power, we review the proposed locations of wind power facilities to confirm they'll be built in areas with reduced potential for environmental impacts. This includes the impact to birds and bats. SaskPower worked proactively with the Saskatchewan Ministry of Environment to develop wildlife siting guidelines. We're required to monitor bird and bat mortality after construction and take adaptive measures if the data exceeds the thresholds set by the Ministry of Environment.

We also supported the creation of the **Saskatchewan Breeding Bird Atlas**. This helps us lessen our interactions with birds because we now know what species nest or live near our facilities or make stopovers during migration.

