

"Green Energy Sources"

Generally, electricity generated from renewable resources such as

- ◆ the sun,
- ◆ wind,
- ◆ water,
- ◆ geothermal, and
- ◆ biomass

systems are considered green energy sources. Wind appears to offer the best opportunity for green energy in South Dakota.

Without subsidies, green power tends to cost more than traditional forms of electric power generation. It is expected that the more the demand for green power, the faster these renewable technologies will come down in cost.

As green power developers grow they will become more competitive in cost.



A typical wind turbine is 120 feet tall with 50-foot blades.

For more information, contact:

Clipper Windpower, LLC: www.clipperwind.com

Florida Power & Light: www.fplenergy.com

National Wind Power: www.natwindpower.co.uk

American Wind Energy Association: www.awea.org

National Wind Coordinating Committee:
www.nationalwind.org

Utility Wind Interest Group, Inc.: www.uwig.org

East River Power Cooperative: www.erepc.com

Central Electric Cooperative: www.central.com

Dakota Energy Cooperative: (605) 352-8591



*South Dakota
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Wind Generation in South Dakota?



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Potential and Opportunities for Wind Energy

Wind energy is generating interest in South Dakota. The U.S. Department of Energy has identified South Dakota as one of the top three geographic locations for wind energy generation.

Development Interests

In fact, at least three out-of-state companies, Clipper Windpower from California, Florida Power & Light, and United Kingdom's National Wind Power have found South Dakota's potential attractive enough to consider wind development areas within the state.

Several groups within South Dakota are also studying the potential of wind development. A cooperative called CenDak Winds plans to develop a wind turbine farm to produce and market wind energy.

Existing electric cooperatives, East River Electric Cooperative, Central Electric Cooperative, and Dakota Energy have joined to fund a study of costs and transmission issues for developing wind energy.

Transmission Opportunities

After the wind has been turned into electricity, the power needs to be transported to the consumer through transmission lines. There are two types of transmission lines needed to transport wind-generated power.

The first type is the "gathering" lines that carry power from each wind turbine to a central site. The second type is the bulk transmission lines which carry very large amounts of power from the generating site to distant locations. Each type of transmission line has unique siting, licensing, and construction challenges.

Gathering lines will need to be built, while bulk transmission lines may already be in place; however, many transmission lines are already near capacity. Building new lines or enhancing existing transmission lines would be very costly.

Landowners have income potential from land leases and easements allowing transmission lines on their property.



Impediments to Wind Generation in South Dakota

Clarification of Amendment E

In 1998, South Dakota voters passed an amendment to the state constitution which restricted corporate involvement in farming. Clarification is being sought through the court system to determine how corporate wind generation on farm land would be impacted.

Excise Tax

Currently South Dakota charges contractors an excise tax on large construction projects. Such costs may add challenges to corporate involvement in major projects.

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