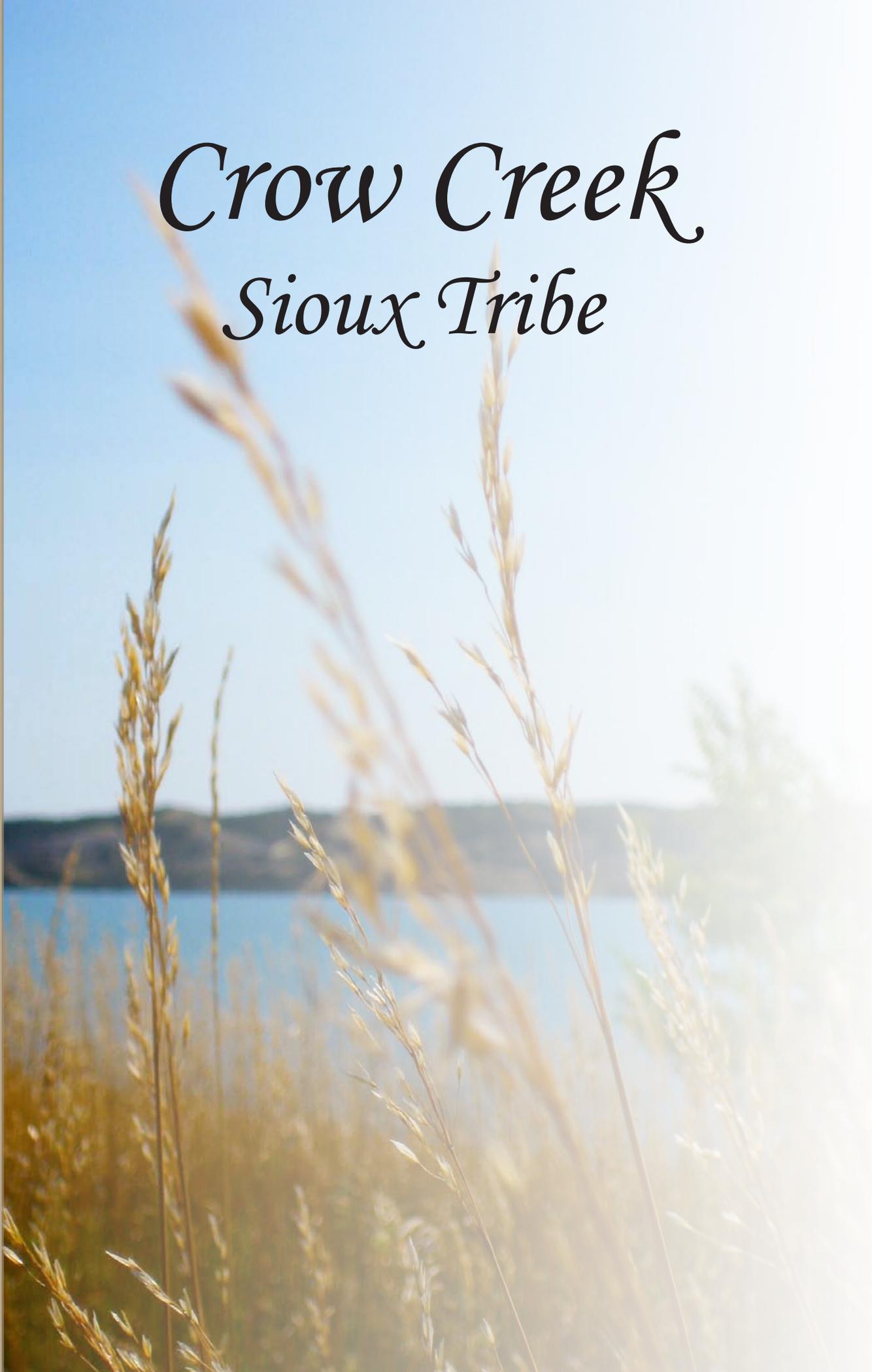


*Commercial Wind Development*

*Crow Creek  
Sioux Tribe*



## *Business Advantages*

- Wind resources of class 3-7*
- Over 59,600 acres available for commercial wind development for which the Crow Creek, Sioux Indian Tribe has authority*
- Close proximity to at least 3,000 kV of existing transmission potential*
- Largest existing substation in the state of South Dakota*
- Midwest Independent transmission System Operator (MISO) interconnection capabilities*
- Easy access to Interstate 90*

## *Greetings from the Tribe*

*On behalf of the Crow Creek Sioux Indian Tribe, it is my pleasure to extend a warm welcome. I appreciate your time to view our history, culture and future business opportunity in commercial wind development. There are many positive aspects you will find about our wind resource within this brochure. We look forward to a continued discussion where we may learn about your organization and its future plans. Thank you for your interest.*

*Sincerely,*

*Brandon Sazue*

*Brandon Sazue  
Chairman, Crow Creek Sioux Tribe*



## *The People and Culture*

The Crow Creek Sioux Reservation was initially established by executive order in 1863. The reservation is the homeland to the Ihanktowan Dakota of the Oceti Sakowi (Seven Council Fires) commonly known as the Great Sioux Nation. The Dakota who settled on the Crow Creek Reservation are descendants of all bands of the Oceti Sakowi or the Dakota/Nakota/Lakota Nation. The Crow Creek Sioux most naturally call themselves the Hunkpati (Making of Relatives, To Live). During the summer months a variety of events take place on the reservation, such as powwows and rodeos.

The Crow Creek Sioux Tribal Council is the official governing body of and for the Crow Creek Sioux Tribe. The Crow Creek Sioux organized themselves into three defined reservation district areas: Fort Thompson, Crow Creek, and Big Bend. The Tribal Council consists of a Tribal Chairman and six Council Members elected every two years. The Council is empowered and authorized to enact resolutions and ordinances governing the management of all economic and educational affairs and enterprises of the Tribe. A primary goal of the tribal government is to maintain and protect lands, as well as creating beneficial opportunities for future generations.

## *Location Description and Climate*

The Crow Creek Sioux Reservation is centrally located in South Dakota. See Figure #1. Sitting on 242,600 acres of rolling grassy hills and lush riparian woodland, the reservation is located on the eastern side of the Missouri River.

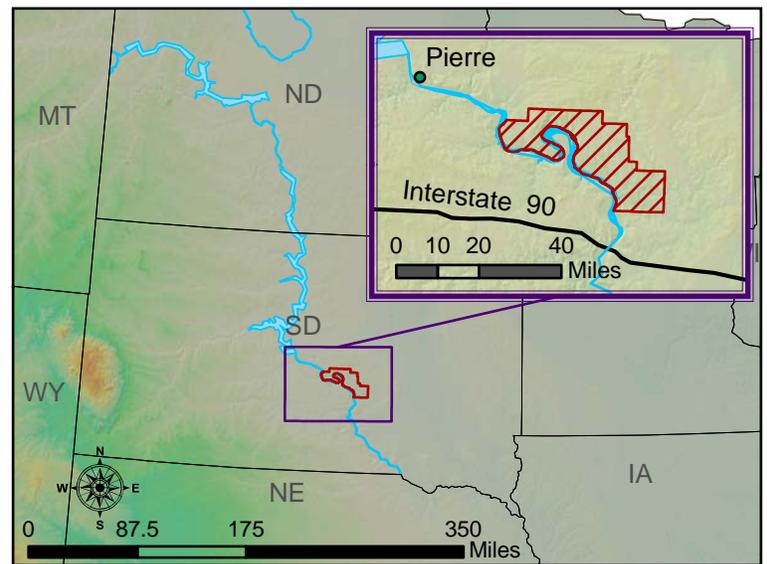


Figure #1: Map Produced by DEMD using data from NREL and the National Geospatial Resource Center.

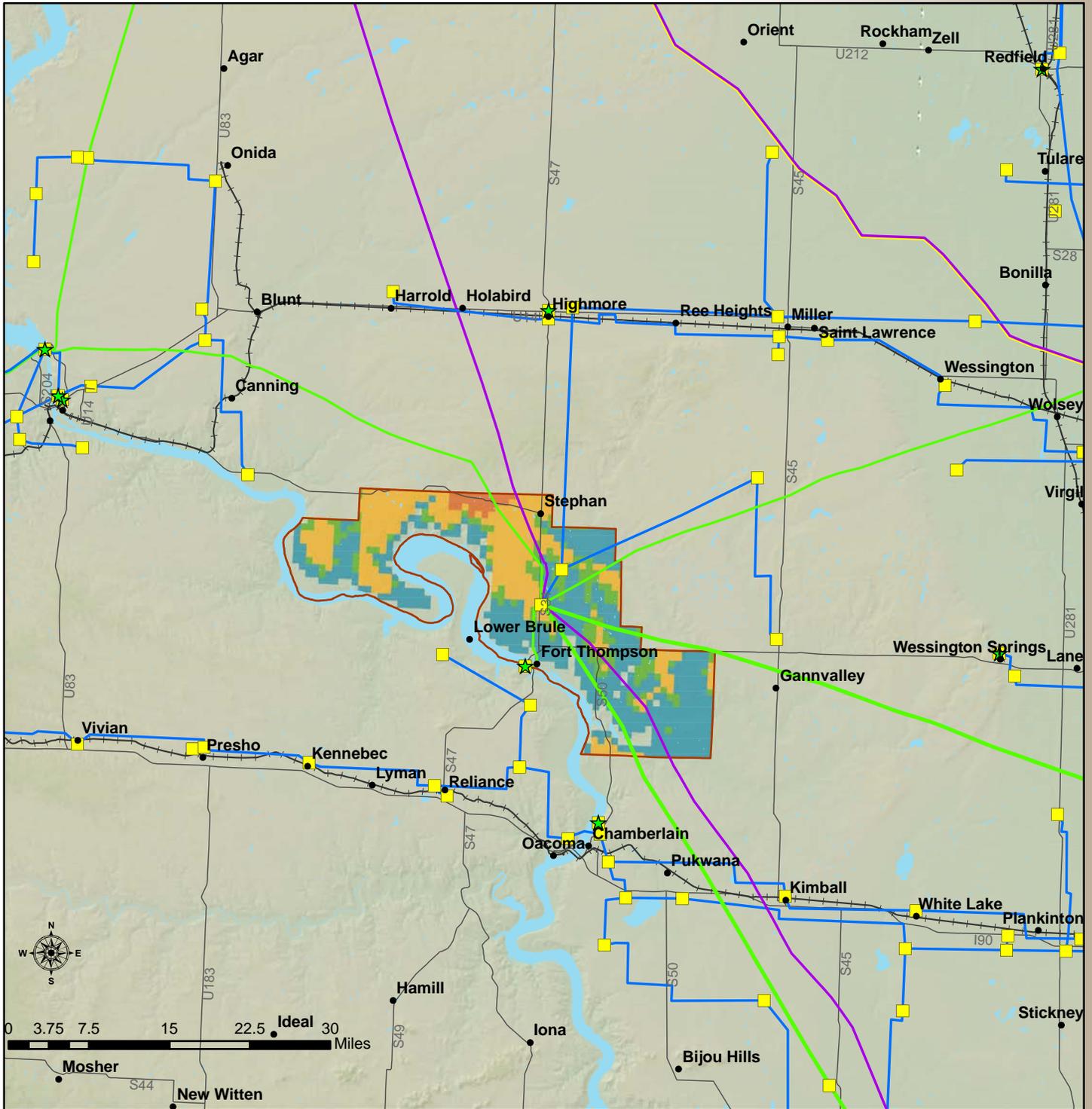
Winter and summer seasons on the reservation are diverse. Winter conditions are comprised of regular snowfall with some blizzard conditions. During the summer there is a three month growing period, with extreme conditions that bring on droughts at times. Yearly average precipitation is about 19 inches, with the most accumulation occurring during the months of May, June, and July. Winter temperatures range from -20 °F to 30 °F, while summer temperatures range from 70 °F to 100 °F. The average yearly high is 59 °F.

## *Infrastructure and Access*

Roadways near the reservation include a major interstate (I-90) 30 miles south of the Crow Creek Sioux Reservation. Additional state highways crossing the reservation include 34, 47, and 50. Railroads are also located north and south of the reservation within about 30 miles.



# Crow Creek Infrastructure and Access



Map produced by DEMD using data from NREL, Platts, and the National Geospatial Resource Center

## Legend

- Crow Creek Reservation
- Lakes and Rivers
- Roads
- Cities
- ★ Power Plants
- Substations

## CATEGORY

- Below 230kV
- 230kV - 344kV
- 345kV - 499kV
- 500kV - 734kV

## Wind Power Class (NREL validated)

- 3 Fair
- 4 Good
- 5 Excellent
- 6 Outstanding

Figure #2

The reservation is in a prime location for transmission access. Most of South Dakota's transmission lines are in the eastern half of the state, with major lines on and near the reservation. The voltages of the transmission lines crossing the Crow Creek Sioux Reservation vary from 69 kilovolts to 345 kilovolts. Furthermore, within 20 miles of the reservation there are a variety of transmission lines ranging from 35 kV to 345 kV. See Figure #2 on the previous page.



### *Resource Description*

The Crow Creek Sioux Reservation has promising wind speeds throughout the reservation with most areas having a wind class of 3 and above. Roughly half of the reservation is classified with a wind class 4 and above. The majority of the higher wind speeds are on the northern half of the reservation.

The Crow Creek Sioux Reservation has 379 square miles (242,600 acres) of wind potential. Typically, reservations are comprised of tribal, allotment, government, fee and private lands. Development within the reservation may occur on a variety of different land ownerships. Tribally owned lands within the Crow Creek Sioux Reservation



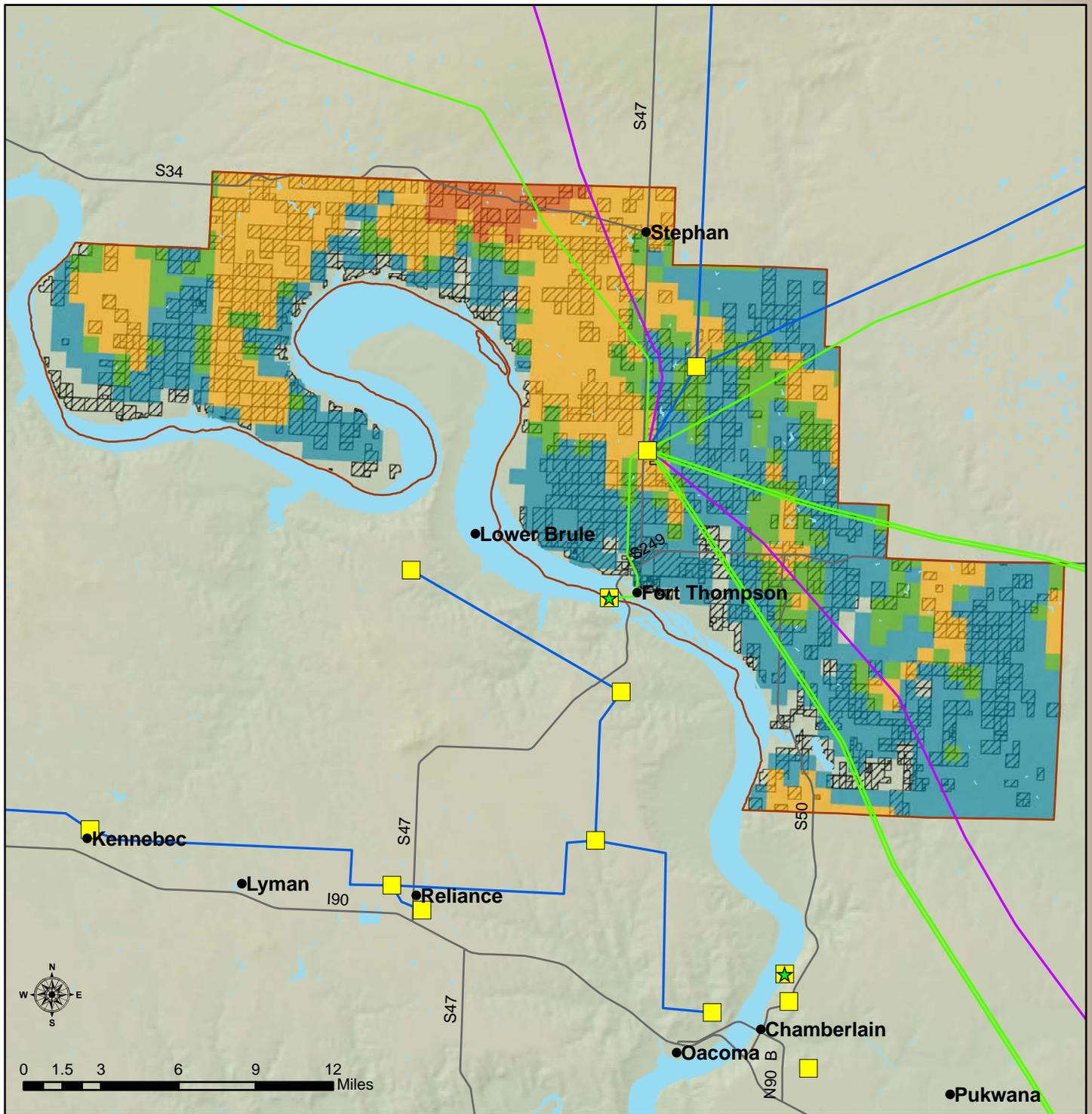
comprises about 24 percent (90 sq. mi-59, 600 acres). This would equate to about 1,100 MW potential (estimating 50 acres needed per MW). Allotment lands are lands owned by individual tribal members, and these lands account for about 21 percent (80 sq. mi- 53,350 acres) with a potential capacity of 1,000 MW. See Figure #3.

### *Markets for Utility Scale Wind Power Generation*

To aid in the development and creation of a competitive market place for renewable electricity generation, some states have put in place a Renewable Portfolio Standard (RPS) or State Goal. Currently 29 states have an RPS, and an additional five states have goals. South Dakota currently has set a state goal to achieve 10 percent of electricity sold to have been generated by renewable resources (wind being one of them) by the year 2015. Other nearby states in the Midwest have implemented similar standards or goals. See Table #1 on the following pages.

Crediting renewable electricity generation to be complied within an RPS / Goal may be achieved through Power Purchase Agreements (PPA's) with utilities and sale of Renewable Energy Certificates (RECs, Green Tags). The PPAs and RECs may be bundled together within a PPA or in some cases sold separately to the utility or other entities. Transmission lines are the connecting factor between generation and use. The Crow Creek Sioux

# Crow Creek Wind Resource Displayed with Surface Ownership



Map produced by DEMD using data from NREL, Platts, and the National Geospatial Resource Center

## Legend

**Crow Creek Reservation**



**Tribal and Allotment Lands**



**Other Lands**



Lakes and Rivers

Roads

Cities

Power Plants

Substations

**Transmission Lines**

**Voltage Range**

Below 230kV

230kV - 344kV

345kV - 499kV

**Wind Power Class (NREL validated)**

3 Fair

4 Good

5 Excellent

6 Outstanding

Figure #3

Reservation is situated at a very suitable location for marketing advantages. See Figure #4.

### Environmental Impact Regulations

Many regulations exist for the development of wind generation facilities. These include regulations pertaining to environmental impact and the various agreements between the land owners, project owners, developers and power purchasers.

Environmental concerns include interference with avian and bat migration, existing stream and river channels, local airports and aviation facilities, local community noise disturbances, visual impacts and other potentially harmful pollutants. No studies have been completed on the Crow Creek Sioux Reservation and will need to be done before any development takes place.

#### States with Renewable Portfolio Standard (RPS)

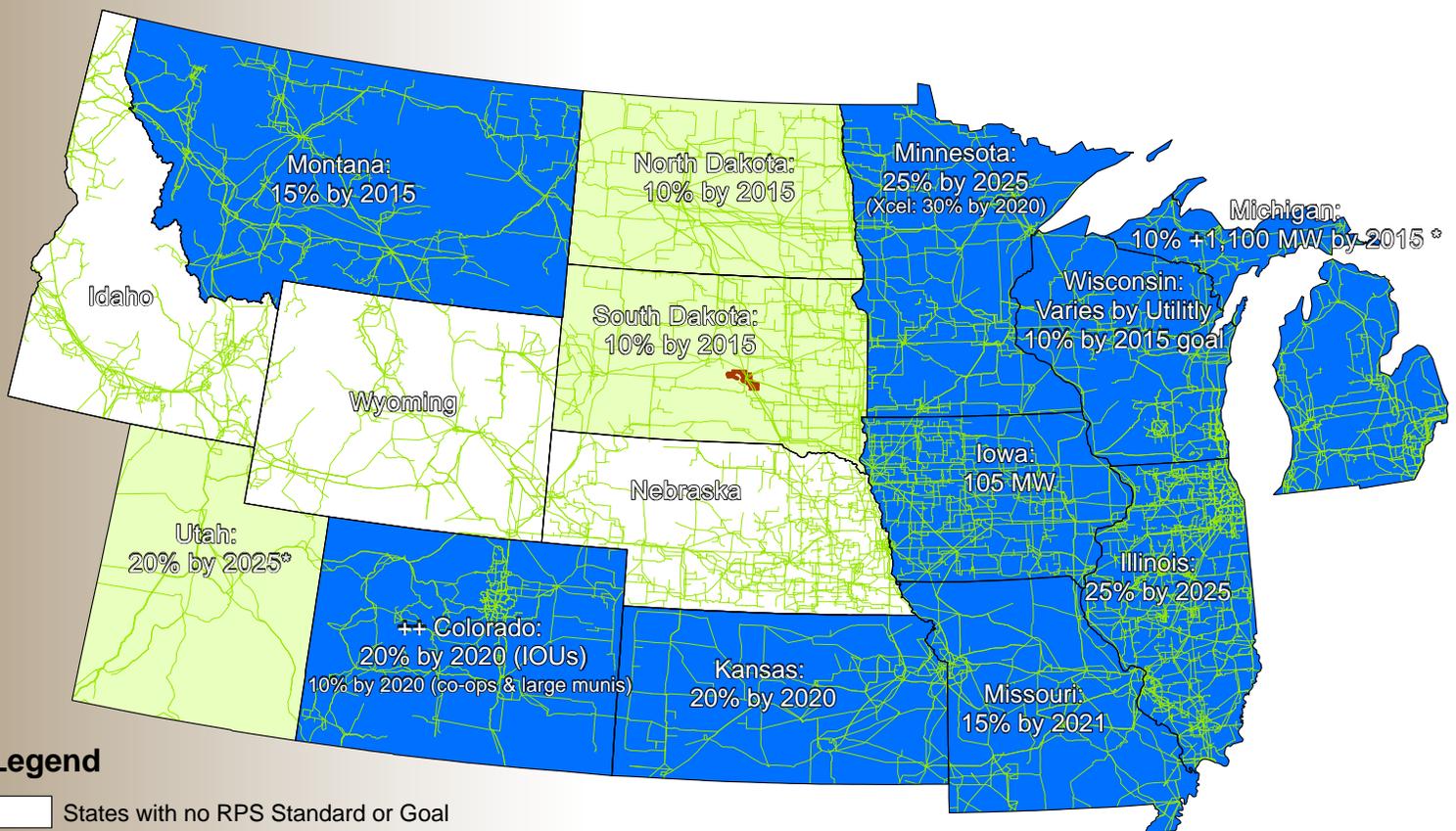
State	Percentage	Compliance Year
Colorado	20	2020
Illinois	25	2025
Iowa	105 MW	
Kansas	20	2020
Michigan	10 + 1,100MW	2015
Minnesota	25	2025
Missouri	15	2021
Montana	15	2015
Wisconsin	15	2015

#### States without an RPS but have State Goals

State	Percentage	Compliance Year
North Dakota	10	2015
South Dakota	10	2015
Utah	20	2025

Table #1

### Renewable Portfolio Standards and Transmission Lines in the Midwest



#### Legend

- States with no RPS Standard or Goal
- Transmission Lines
- Crow Creek Reservation
- States with RPS Standard
- States with RPS Goal
- ++** Minimum Solar or customer-sited requirement
- \*** Extra credit for solar or customer-sited renewables

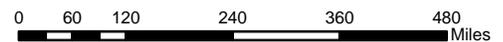


Figure #4

## *Permits, Compliances and Leases needed for Wind Development*

- Avian Protection Plan Guidelines
- Bureau of Indian Affairs Land Use Lease or Easement
- Tribal Employment Rights Office Licenses
- National Environmental Policy Act Compliance
- Archaeological Resource Protection Act Compliance
- Sacred Sites compliance
- National Ambient Air Quality Standards Compliance
- National Electric Safety Code Compliance
- National Electric Code Compliance
- Fish and Wildlife Act
- U.S Fish and Wildlife Service
- Federal Aviation Administration's Lighting Regulation Compliance
- Noise Control Act of 1972 Compliance
- Clean Air Act Compliance
- Resource Conservation and Recovery Act Compliance
- U.S. Army Corps of Engineers
- Native American Graves Protection and Repatriation Act (NAGPRA)

## *Other Consultations*

- Advisory Council on Historic Preservation
- Endangered Species Act
- Federal Aviation Administration: 49 USC 44718
- EPA: Oil Pollution Act – Spill Prevention, Control, Countermeasure (SPCC) Plan
- Bats study

## *Tax Credit*

Although the Tribe does not pay state or federal taxes, an income tax credit exists for electricity produced from utility-scale wind turbines. The credit was created under the Energy Policy Act of 1992 and current three-year extension by the American Recovery and Reinvestment Act passed in February 2009. A developer may take advantage of the tax credit depending on the business arrangement with the Tribe. The value of the credit is \$0.021/kWh produced, and it is set to expire December 31st, 2012. The tax credit has been renewed in the past.



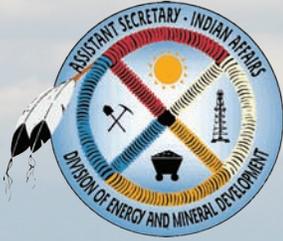
*Thank You.*



## Contact Information



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