

Standing Rock Sioux Tribe – Lakota/Dakota Nation



Feasibility Study Supporting Wind Development & Establishment of Renewable Energy and Energy Development Office

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OVERVIEW:



- ▶ BACKGROUND INFORMATION ON STANDING ROCK RESERVATION
- ▶ SITTING BULL COLLEGE WIND TURBINE
- ▶ EECBG ENERGY EFFICIENCY & WIND TURBINE INSTALLATION AT SITTING BULL COLLEGE
- ▶ WIND ASSESSMENT STUDY
- ▶ ESTABLISHMENT OF RENEWABLE ENERGY & ENERGY DEVELOPMENT OFFICE (REEDO)
- ▶ WIND FEASIBILITY STUDY
- ▶ OCETI SAKOWIN POWER PROJECT

STANDING ROCK



- ▶ ONE OF SEVEN RESERVATIONS OF THE GREAT SIOUX NATION
- ▶ LOCATED IN SOUTH-CENTRAL NORTH DAKOTA & NORTH-CENTRAL SOUTH DAKOTA
- ▶ LOCATED IN SIOUX COUNTY, NORTH DAKOTA; CORSON COUNTY, SOUTH DAKOTA AND SMALL PORTIONS OF ZIEBACH & DEWEY COUNTY, SD
- ▶ RESERVATION DIRECTLY TO THE SOUTH IS CHEYENNE RIVER SIOUX TRIBE

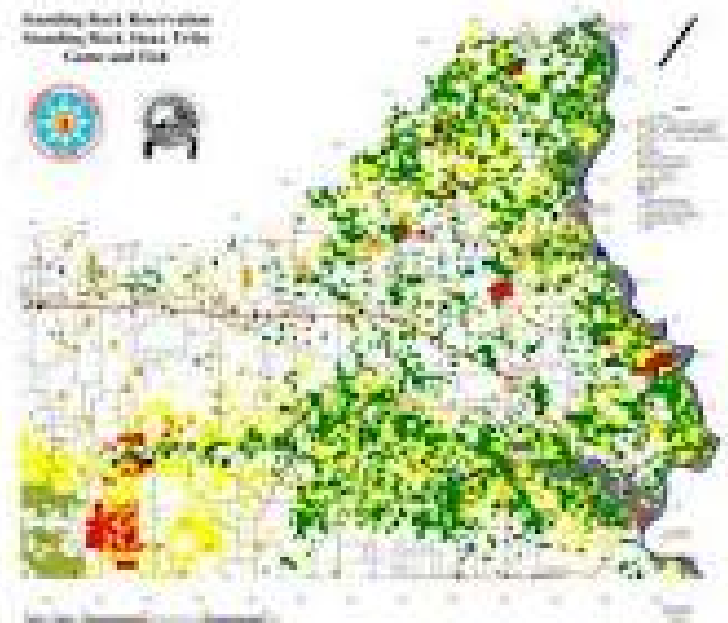


STANDING ROCK



▶ LAND

- Terrain
 - Woodlands, rolling hills, river valleys, and lakes
- CHECKERBOARD OWNERSHIP
- ALLOTTED, TRIBAL, AND OTHER (STATE, FEDERAL, NON-INDIAN)
- 2,320,247.67 ACRES
- LOST NEARLY 560,000 ACRES DUE TO THE PICK-SLOAN ACT OF 1944



STANDING ROCK: LAKOTA/DAKOTA NATION



- ▶ DAKOTA:
HUNKPATINA &
CUTHEAD –
YANKTONAI
- ▶ LAKOTA: MAJORITY
HUNKPAPA,
BLACKFEET



Cetan Wakinyan – Chief
Thunderhawk – Hunkpapa
Lakota

STANDING ROCK SIOUX TRIBE



▶ ORGANIZATION

- CHAIRMAN, VICE-CHAIRMAN, SECRETARY
- 8 DISTRICT REPRESENTATIVES
- 6 AT-LARGE REPRESENTATIVES
- SEPARTED INTO 3 COMMITTEES (JUDICIAL; HEALTH, EDUCATION, & WELFARE; ECONOMICS)
- EACH PROGRAM DIRECTOR REPORTS TO A COMMITTEE

SITTING BULL COLLEGE WIND TURBINE



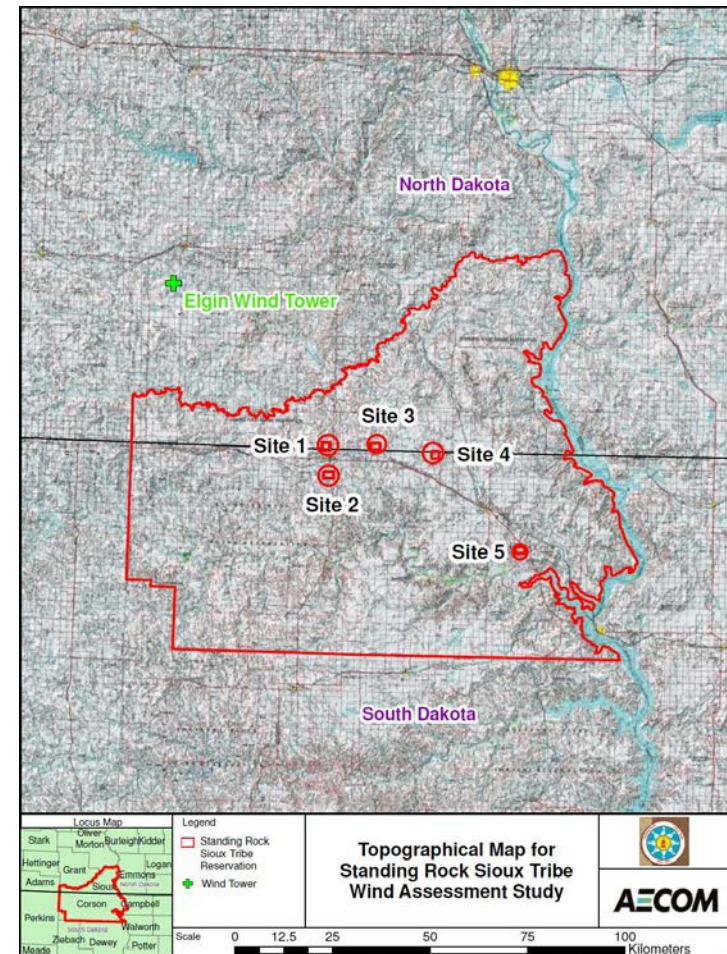
- ▶ WIND TURBINE CURRENTLY PROVIDES ENERGY TO THE SCIENCE CENTER & TRANSIT CENTER (HUD-GRANT)
- ▶ SITTING BULL COLLEGE NOW HAS A 1 YEAR WIND TURBINE TECHNOLOGY CERTIFICATE PROGRAM
 - Introduction to wind turbines
 - Wind energy fundamentals
 - Electricity & circuits
 - Safety & environmental
 - Basic hydraulics
 - OSHA standards



WIND ASSESSMENT STUDY:



- ▶ FUNDED THROUGH THE DEPARTMENT OF INTERIOR
- ▶ WORKED WITH CONSULTANT AECOM TO ASCERTAIN THE BEST LOCATION FOR A WIND FARM



EECBG



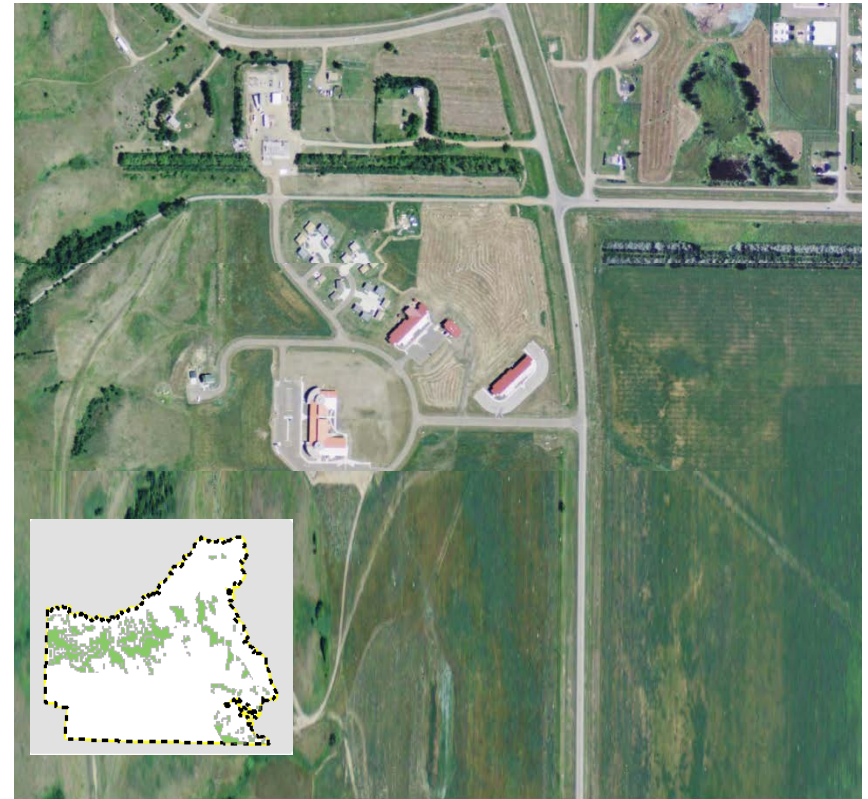
- ▶ Energy Efficiency
 - Two possible locations (science center & family support center)
 - Family support center was chosen (Lakota/Dakota Immersion Nest, Campus Kids DayCare, and Teaching & Learning)
 - Had the highest energy use/unit area from 2007 – 2010



EECBG



- ▶ Small Wind Turbine Location
 - Sitting Bull Finance Center
 - Chosen for the location



Renewable Energy & Energy Development Office



- ▶ Begin educational outreach activities
- ▶ Gathering of data in the 8 communities of Standing Rock including the tribal government
 - Goals & concerns of the SRST
- ▶ To serve as a research center and information clearinghouse
- ▶ To ensure that energy development proceeds in a systematic way



Renewable Energy & Energy Development Office



- ▶ An advisor to tribal government during “energy” decision making
- ▶ Oversee current & future energy grants
- ▶ Investigate additional types of renewable energy products
 - Educate SRST on types of renewable energy products

WIND FEASIBILITY STUDY:



- ▶ WORKING WITH SUB-CONTRACTORS ERM (ENVIRONMENTAL RESOURCE MANAGEMENT) AND GODFREY & KAHN SC
- ▶ BY USING INFORMATION FROM THE DOI WIND ASSESSMENT STUDY WE NARROWED DOWN OUT 5 POSSIBLE SITE LOCATIONS TO 1 LOCATION
- ▶ SITE 5 (SHERWOOD HILL) IS BEING CURRENTLY STUDIED
 - ROAD ACCESSIBILITY
 - FIBER OPTIC CABLES LOCATED ALONG HWY 12
 - LARGE AREA OF TRUST LANDS
 - NREL MAP SCORE OF 3 OR MORE

WIND FEASIBILITY STUDY:



- ▶ SITE 5 IS LOCATED WEST OF MOBRIDGE SD AND EAST OF MCLAUGHLIN SD
- ▶ CURRENTLY HAVE 2 MET TOWERS AT THE LOCATION THAT HAVE BEEN COLLECTING DATA FOR ONE YEAR
- ▶ CURRENTLY WORKING ON:
 - SITE LAYOUT FOR TURBINES
 - ENVIRONMENTAL ASSESSMENT ACTIVITIES
 - ESTHETIC VIEWS
 - EAGLE POPULATION
 - FINANCING POSSIBILITIES

OCETI SAKOWIN POWER PROJECT:



- ▶ STANDING ROCK SIOUX TRIBE, CHEYENNE RIVER SIOUX TRIBE, CROW CREEK SIOUX TRIBE, ROSEBUD SIOUX TRIBE, OGLALA SIOUX TRIBE, FLANDREAU SANTEE SIOUX TRIBE, SISSETON WAPEHTON SIOUX TRIBE, YANKTON SIOUX TRIBE
- ▶ TRIBES WILL COMBINE THEIR EFFORTS & RESOURCES TO BUILD A UTILITY SCALE 1GW+ WIND POWER GENERATION & TRANSMISSION SYSTEM THAT WILL SELL POWER TO OUT OF STATE BUYERS

OCETI SAKOWIN POWER PROJECT:



- ▶ PROJECT WILL BE BUILT BY \$2-\$3 BILLION IN FUNDING RAISED BY THE ISSUANCE OF POWER REVENUE BONDS ISSUED BY THE OSPP
 - TRIBES WILL MAINTAIN OWNERSHIP & CONTROL OVER THE PROJECT
 - FINANCING COSTS WILL BE GREATLY REDUCED & THUS NOT DEPENDENT ON THE EXTENSION OF THE WIND PRODUCTION TAX CREDIT

Future Plans



- ▶ WRITE for new grants
- ▶ Begin research on Renewable energy products and strategic planning
- ▶ Begin research on developing an Energy & Mineral Code of Regulation for SRST
- ▶ Research on Environmental Effects of Renewable Energy/Energy Development
- ▶ Work with our local EPA Office on the development of a Code of Regulation due to the continuing threat of oil & gas exploration
- ▶ Standing Rock Minerals
 - Permitting
 - Creating this new entity for SRST
- ▶ Creation of a new Tribal Utility

Summary/Lessons Learned



- ▶ There's a lot to do...
- ▶ Talk to the community members
- ▶ Have an Energy/Mineral Development Office

ANY QUESTIONS/COMMENTS?



*“Let us put our minds together
to see what we can build for
our children.”* Tatanka Iyotake