

INTERTRIBAL Council On Utility Policy

COUP

***Tribes Building Sustainable Homeland Economies
P.O. Box 25, Rosebud, SD 57570***

**Pat Spears, President - Lower Brule Reservation, SD
Terry Fredericks, Vice President - Ft. Berthold Reservation, ND
Bob Gough, Secretary - Rosebud Reservation, SD
Bill Schumacher, Treasurer - Flandreau Santee Reservation, SD**

***www.IntertribalCOUP.org
www.NativeWind.org***

DOE Tribal Review Conference

Oct 16-20 Denver CO

Intertribal Council On Utility Policy

“Intertribal Wind Development”



Tribal Renewable Energy



- Indian Reservations are the poorest communities in the U.S. and have the highest unemployment rates.
- Indian Tribes are the fastest growing populations in the U.S with half their members under 18 years of age, and all growth is natural, not immigration.
- Reservation homes are 10 times more likely (14.2%) to be without electricity than rest of U.S. (1.4%)
- Tribes have hundreds of gigawatts of renewable energy potential. Tribes could meet most of U.S. electric energy needs with clean green power.

Rosebud Sioux Turbine • Federal Trust Responsibility to build Tribal Sustainable Homeland Economies/Federal Markets

<http://www.eia.doe.gov/cneaf/solar.renewables/page/pubs.html>

Rosebud Sioux & Intertribal COUP

Environmental Justice Revitalization Plan:

3,000 MWs of Tribally Owned Wind Power Across the Northern Great Plains
Financed with Sale of Energy & Environmental Attributes ("Green Tags")

Phase 1 (2003-05):

1st Tribally owned 750 kW Turbine on Rosebud Reservation
Commissioned March 4th, Dedicated May 1st, 2003 (DOE/RUS/NE)

2nd Tribally owned 65 kW Turbine on Ft. Berthold Reservation
Commissioned Oct 4, 2005 (DOE/NE)

3rd Tiospaye (Extended Family) owned 10 kW project on Pine Ridge (non-DOE)

4th Tribally owned 660 kW project planned for Flandreau Santee Sioux Tribe

Phase 2 (2004/6):

30 MW Wind Ranch on Rosebud Reservation (DOE)

Phase 3 EJ Demonstration (2004/7):

80MWs: Eight 10 MW Wind Ranches on 8 Reservations

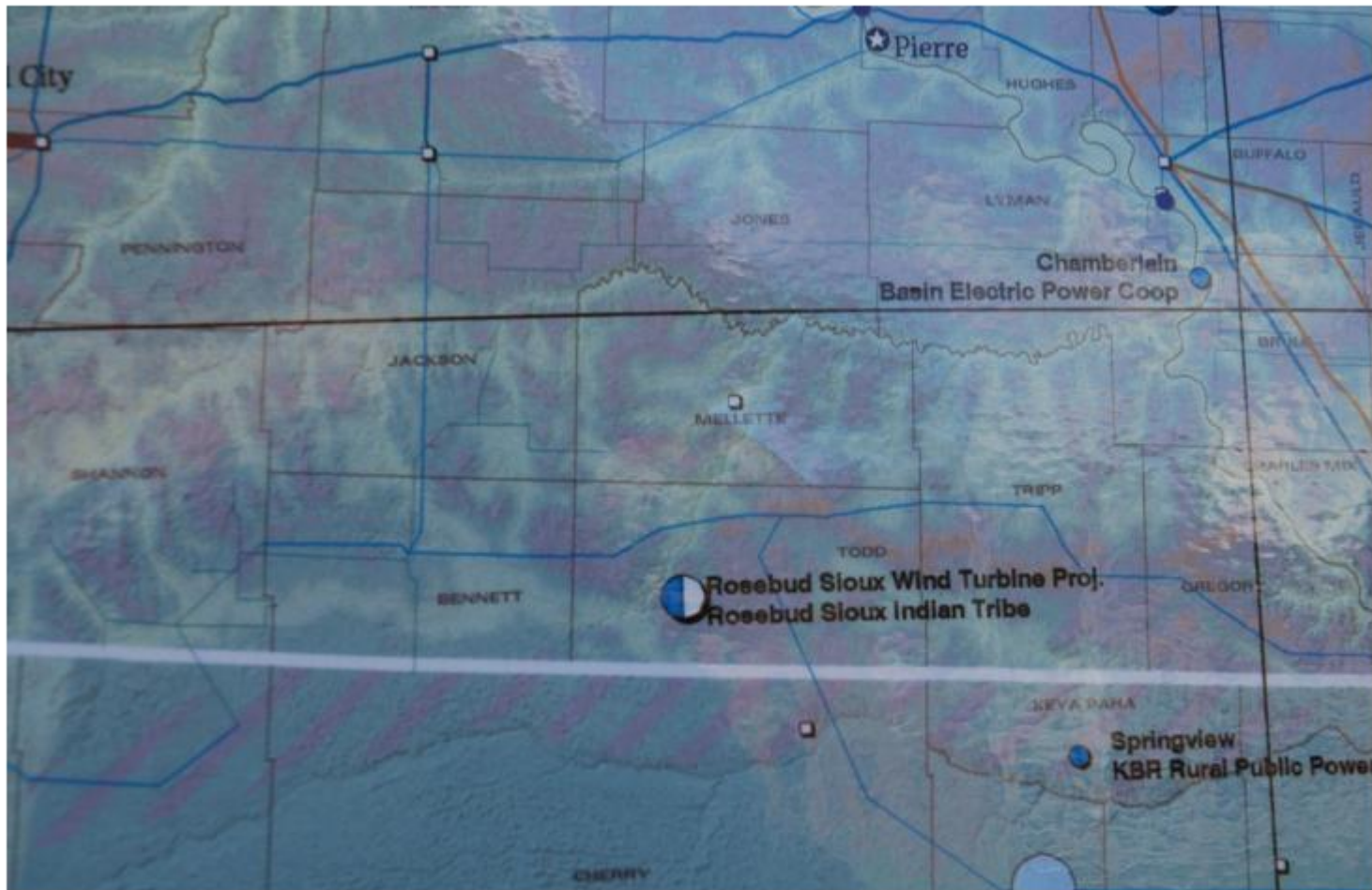
DOE and BIA Funding

Phase 4 (2004-2008):

Expand and Replicate across the Northern Great Plains

Phase 5 (2006/15):

3,000 Tribal MW on Great Plains Reservations



The Rosebud Sioux Wind Turbine Project

The Only 100% Tribally Owned Project in the Nation

Funded in part: DOE Tribal Energy Grant; 1st RUS Tribal RE Loan
Sale of: Green Power to Ellsworth AFB; Green Tags to *NativeEnergy*



Rosebud's 750 kW Turbine produces ~ 2.4 Mil kWh/yr.
IntertribalCOUP.org

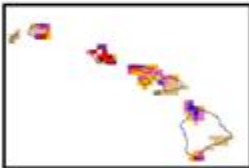
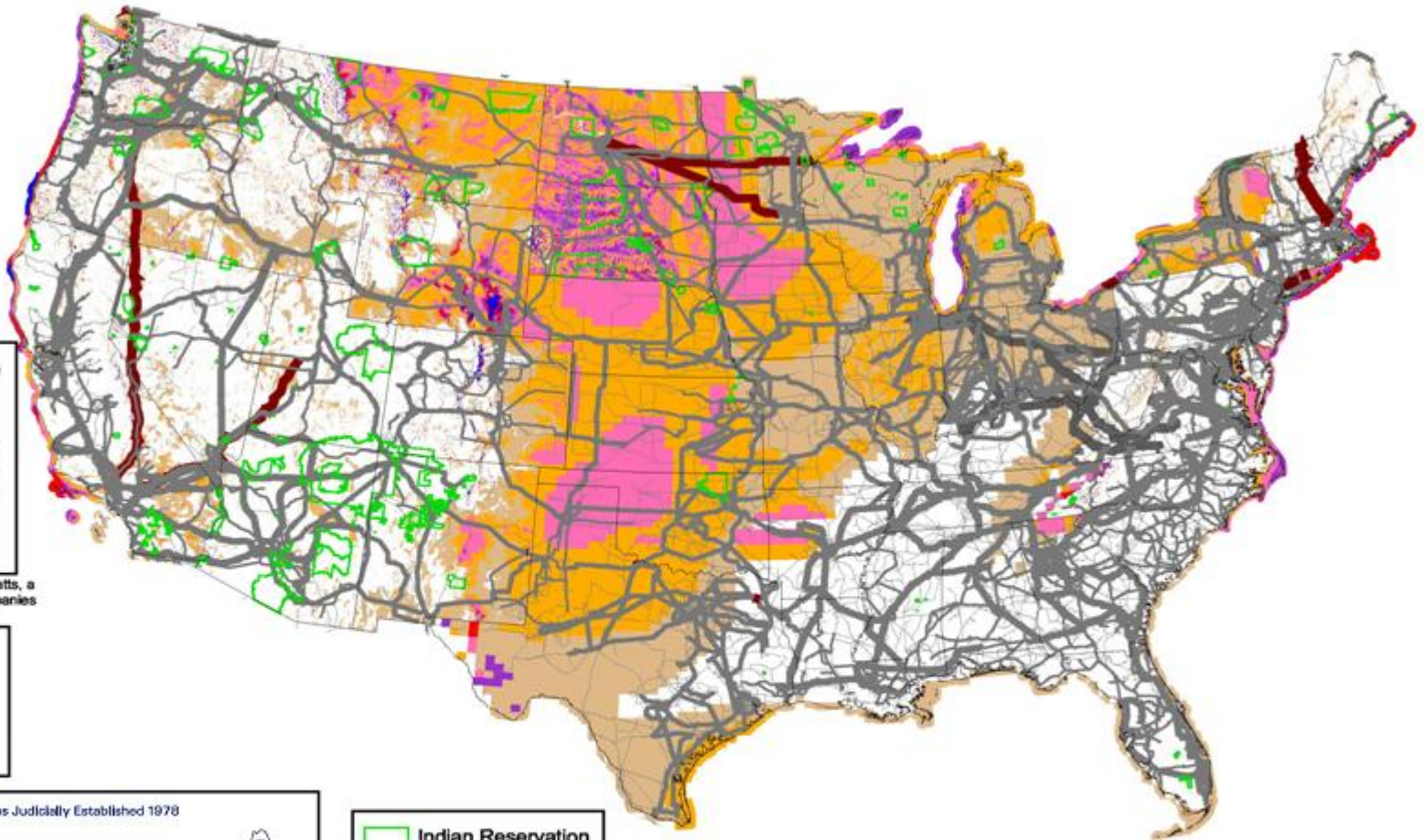


Ft. Berthold's 65 kW Turbine installed Sept 30, 2005
IntertribalCOUP.org

Transmission Line Voltage



Source: POWERmap, ©2002 Platts, a Division of the McGraw-Hill Companies



Indian Land Areas Judicially Established 1978



Indian Reservation

Wind Power Classification

| Wind Power Class | Resource Potential | Wind Power Density at 50 m W/m ² | Wind Speed at 50 m m/s | Wind Speed at 50 m mph |
|------------------|--------------------|---|------------------------|------------------------|
| 2 | Marginal | 200 - 300 | 5.6 - 6.4 | 12.5 - 14.3 |
| 3 | Fair | 300 - 400 | 6.4 - 7.0 | 14.3 - 15.7 |
| 4 | Good | 400 - 500 | 7.0 - 7.5 | 15.7 - 16.8 |
| 5 | Excellent | 500 - 600 | 7.5 - 8.0 | 16.8 - 17.9 |
| 6 | Outstanding | 600 - 800 | 8.0 - 8.8 | 17.9 - 19.7 |
| 7 | Superb | 800 - 1600 | 8.8 - 11.1 | 19.7 - 24.8 |

^a Wind speeds are based on a Weibull k value of 2.0

The wind resource information shown is a composite of high resolution (0.04 - 1 sq. km.) and low resolution (~625 sq. km.) wind resource estimates. As little as 2.5% of the areas shown in the low resolution data may have the wind resource value shown, based on the type of exposed terrain (ridge crest vs. plain).

U.S. Department of Energy
National Renewable Energy Laboratory



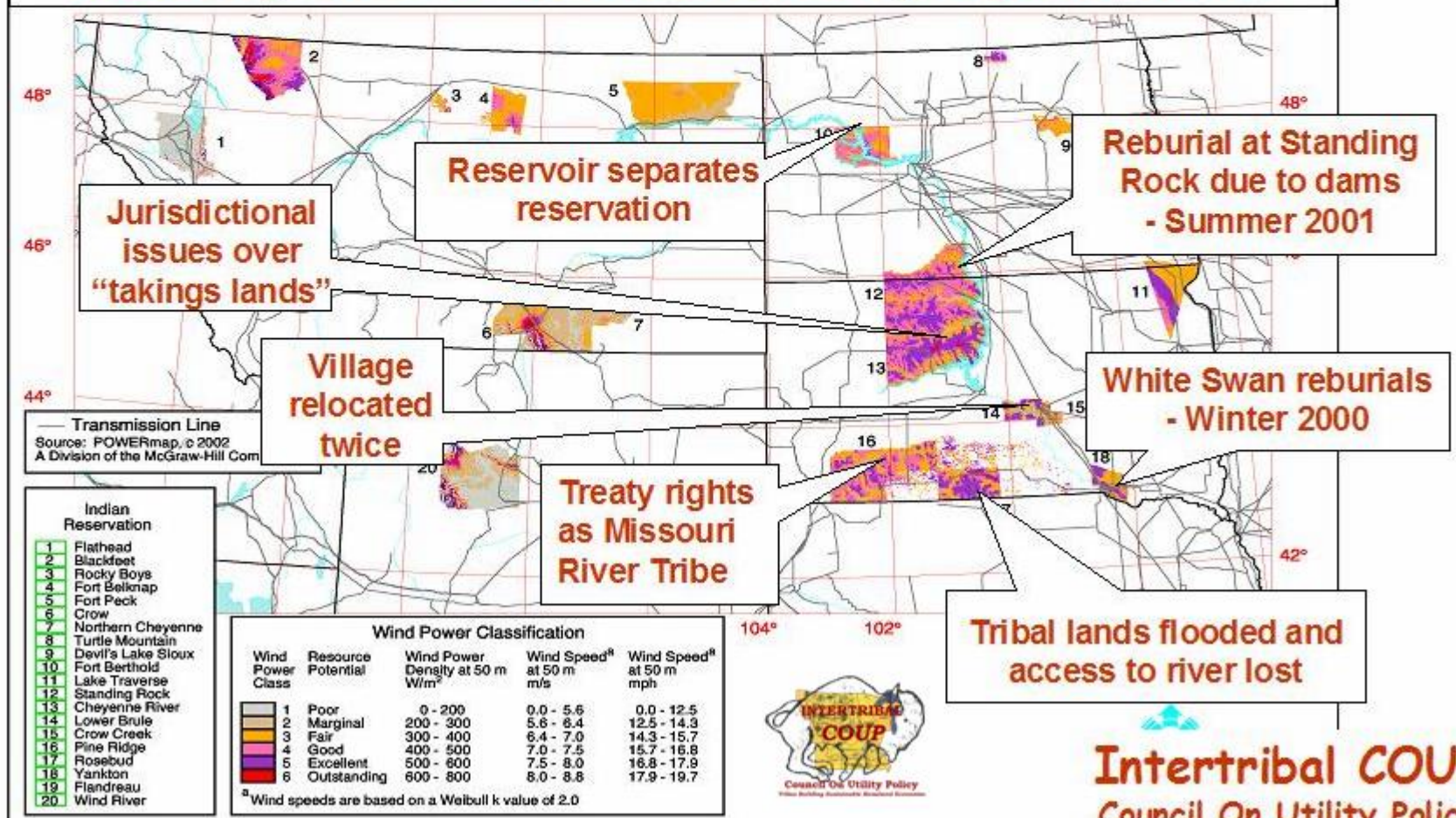
16-MAR-2004 1.3.1

Intertribal Wind Planning and Policy Project

Intertribal Council On Utility Policy (COUP)

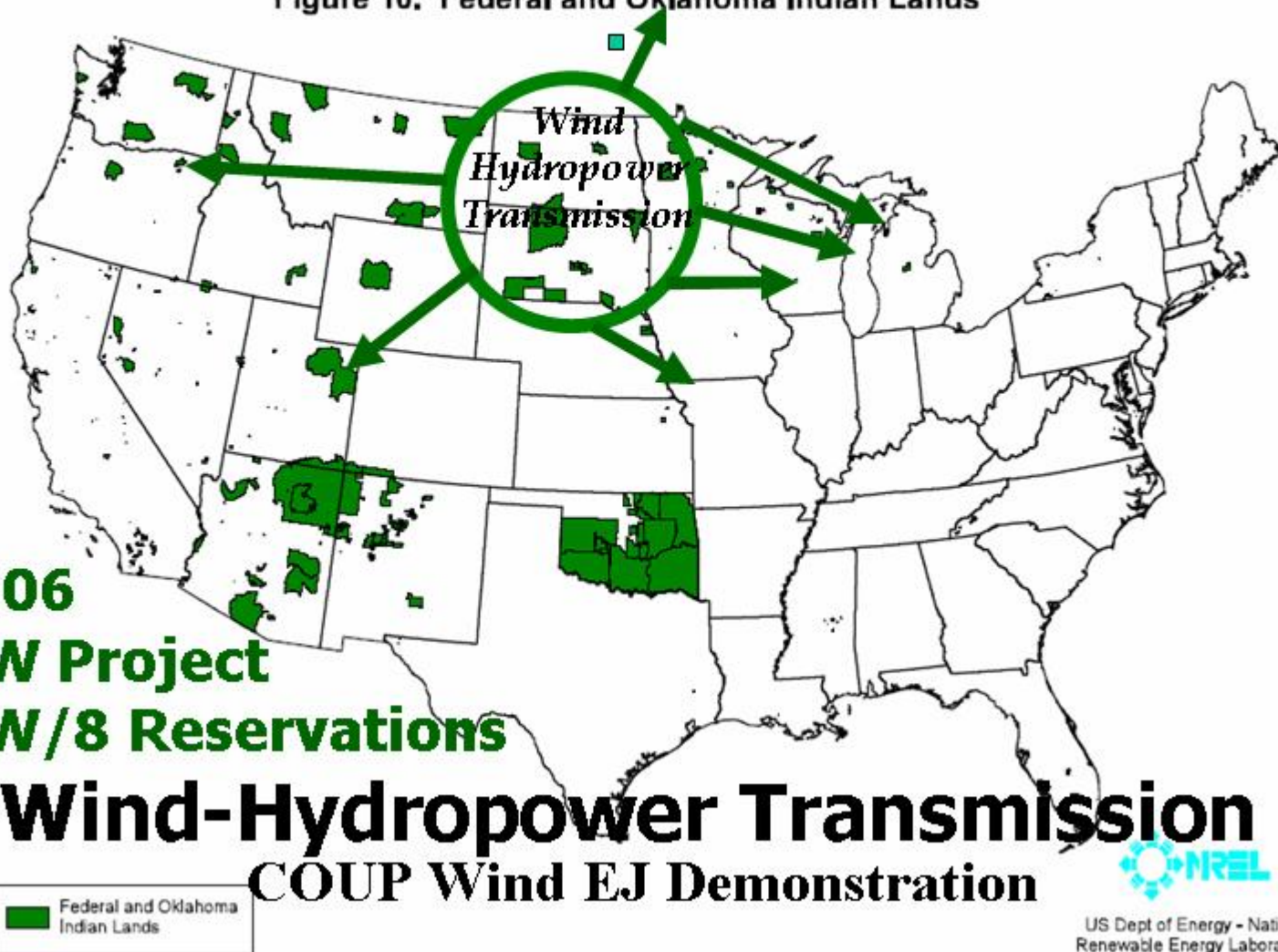
Wind Resources on Northern Plains Reservations located in the Eastern Pick-Sloan Region (Upper Missouri River Basin) of the Western Area Power Administration (WAPA) Grid

Past and ongoing Tribal Environmental Justice Issues Resulting from the Construction of Hydropower Dams



Intertribal COUP Federal Demonstration Project

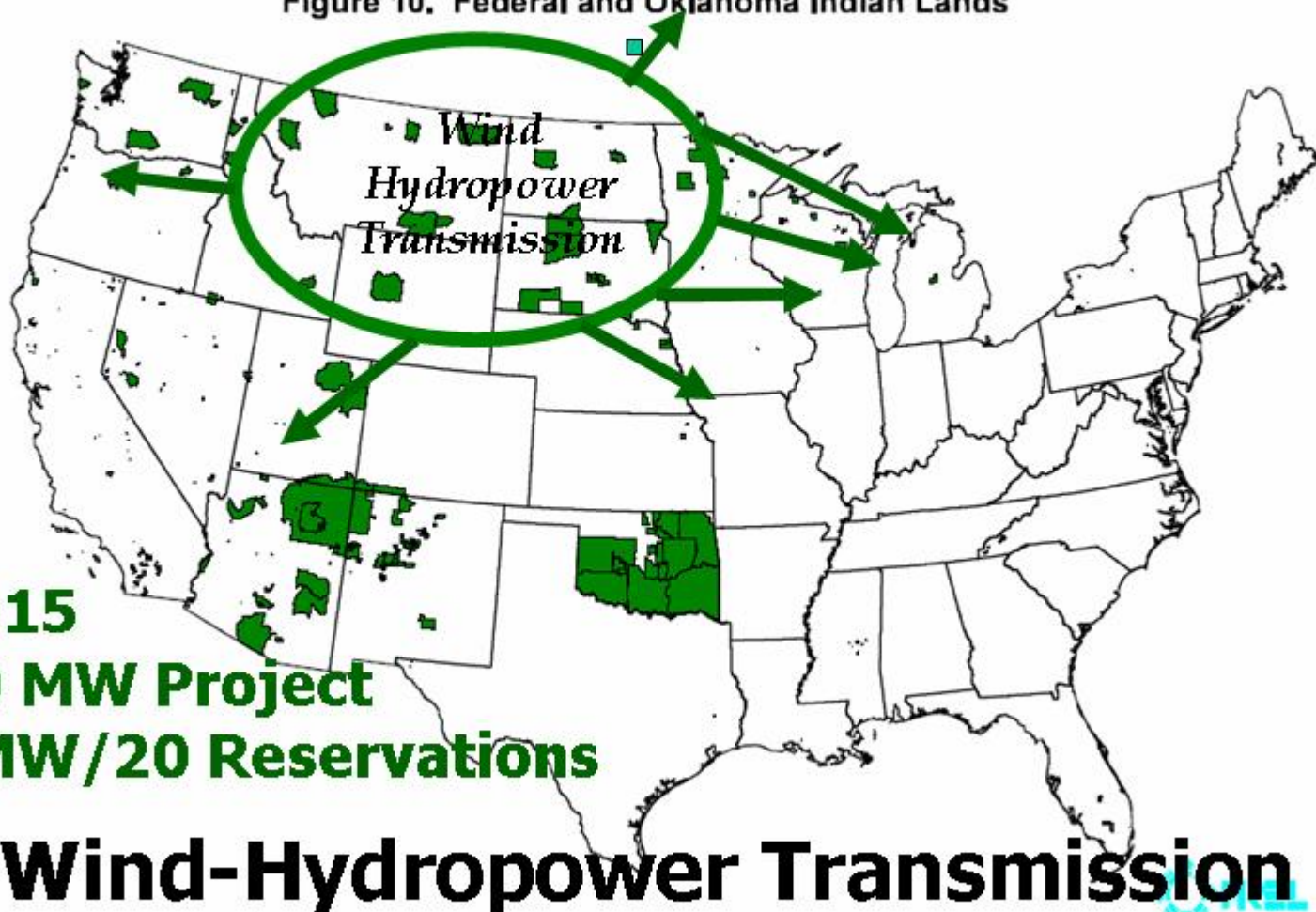
Figure 10. Federal and Oklahoma Indian Lands



Intertribal COUP

Extended Demonstration Project

Figure 10. Federal and Oklahoma Indian Lands



By 2015
3,000 MW Project
150 MW/20 Reservations

Wind-Hydropower Transmission

Federal and Oklahoma
Indian Lands

COUP Wind EJ Demonstration

US Dept of Energy - National
Renewable Energy Laboratory

Rosebud Sioux & Intertribal COUP

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Phase 3 EJ Demonstration (2004/7):

80MWs: Eight 10 MW Wind Ranches on 8 Reservations

DOE and BIA Funding

Project Objectives:

- 1. Wind Assessment - Intertribal COUP 50 M Meteorological Tower Loan Program**
- 2. Business and Market Development**
- 3. Policy Analysis and Federal Procurement**
- 4. Transmission and Interconnection Studies**
- 5. Model Integrated Resource Plan**
- 6. Energy Efficient Housing Design**
- 7. Capacity Building**



**Interagency Working Group on Environmental Justice
Intertribal COUP Wind EJ Demonstration Project**

**Intertribal COUP DOE Grant Activities:
June 2004~2006**

**80 MW Distributed Generation
Intertribal COUP Wind Demo Project**
*Earmarked funding 2004 through (DOE)
for competitively selected in 2001-2002*

**Intertribal Wind Feasibility Studies and Pre-Development Planning
WAPA: Dakota Wind Transmission Study**

**Indian provisions of Energy Policy Act of 2005: Implementation
Federal funding and power purchase opportunities**

NativeEnergy: Green Tags ~ Intertribal COUP majority ownership

ICLEI partnerships for public awareness / Urban markets for Tribal power

NativeWind.org (COUP/ICLEI/NativeEnergy/American Spirit Productions PSA)

**Interagency Working Group on Environmental Justice
Intertribal COUP Wind EJ Demonstration Project**

**Intertribal COUP DOE Grant Activities:
June 2004~2006**

)

ACORE: American Council On Renewable Energy

Apollo Alliance: Renewable energy jobs

Clinton Global Initiative: Contacts for funding and markets
(Ted Turner & Rocky Mountain Institute)

Honor The Earth Tribal Renewable Energy Initiatives

National Wind Coordinating Committee

“Native Renewables Energy Summit” Nov 15-17, Denver

Tribal Outreach, Education & Training: BIA Funding

Western Governors Association’s CDEAC

Clean & Diversified Energy Advisory Committee:

Wind, Transmission & Quantitative Task Forces

Reports online: www.Westgov.org

Interagency Working Group on Environmental Justice Intertribal COUP Wind EJ Demonstration Project

Intertribal COUP DOE Grant Activities: June 2004~2006

Federal Agencies: EJ-IWG Demonstration Project Partners

Department of Energy & Environmental Protection Agency
Department of the Interior, Department of Defense
Department of Agriculture, Department of Justice

Department of Energy:

Federal Energy Management Program on Federal Load
Federal Power Purchase contract issues
Aggregating Federal Load
Federal Utility Partnership Working Group
Western Area Power Administration

Department of the Interior:

Role of BIA in bringing tribal power to federal agencies.

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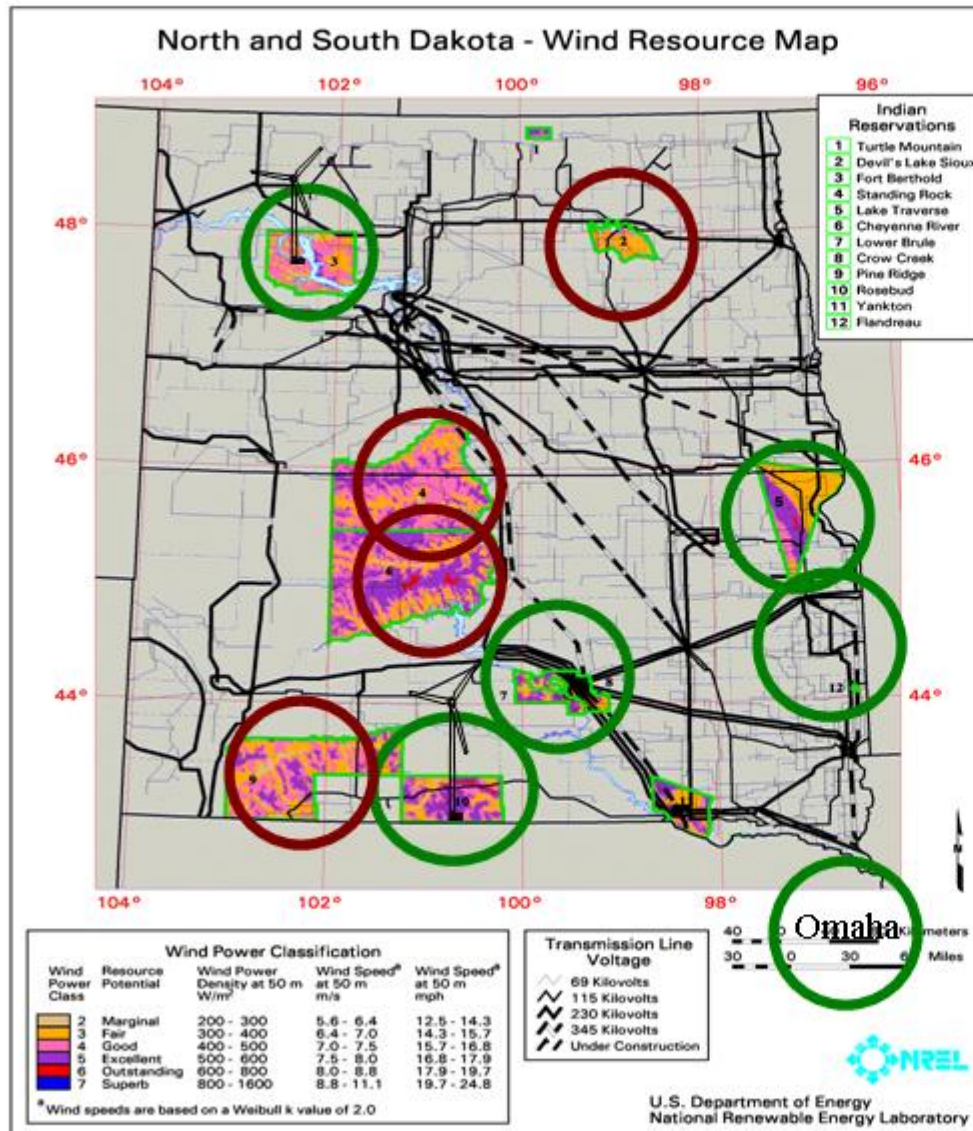
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- 5. Model Integrated Resource Plan**
- 6. Energy Efficient Housing Design**
- 7. Capacity Building**



Intertribal COUP Wind Demonstration Project



Seven COUP Tribes have, by Resolution, signed on to participate in the Intertribal 80 MW wind development demonstration project, with several pending.

This tribally-owned, distributed generation 80 MW project will be built in 10 MW projects on each of the COUP Eight participating Reservations.

○ In Planning ○ Pending

1. Wind Assessment – COUP 50 Meter Meteorological Tower Loan Program

- Building On Existing Relationships and Expertise: Intertribal COUP, working with Distributed Generation (Disgen) has established relationships and contracts with four of the six participating tribes.
- Contract for the feasibility study with Disgen includes:
 - Meteorological tower installation
 - Wind data analysis
 - Final report suitable for economic models and project financing to be provided by a qualified meteorologist.

IWPP Project Objectives

1. Wind Assessment - COUP 50 Meter Meteorological Tower Loan Program

- Intertribal COUP leadership and delegates from each participating Tribes identified 10 MW wind sites near WAPA substations on each of the six reservations.
- Discussions to inform Tribal Councils, Tribal Planning Commission, or Economic Development Committee on the COUP IWPP plans for met tower siting and installation.
- Process for site selection and approval will be followed on each reservation.

80 MW Intertribal Wind EJ Demo Project Status Report

Feasibility Study complete for majority of Tribes – 2005

50 meter anemometer data at selected sites

Avian/environmental and cultural resources surveys

Rosebud, Lower Brule, and Ft. Berthold (Funding: DOE)

Flandreau Santee, Sisseton-Wahpeton & Omaha (Funding: BIA)

Pending: Pine Ridge and ???

Delays in anemometer tower installation

BIA/NEPA requirements of U.S. Fish & Wildlife Service and
State Historic Preservation Office approvals

BIA development grant:

Intertribal COUP applying in Spring 2006

80 MW Intertribal Wind EJ Demo Project Status Report

Discussions with WAPA:

Dakota Wind Transmission Study
Interconnection Studies for 10 MW sites
Supplemental Power Purchase requirements

Discussions with Basin Electric:

Interconnection, Avoided Cost and Green Tags

Discussion with IOUs:

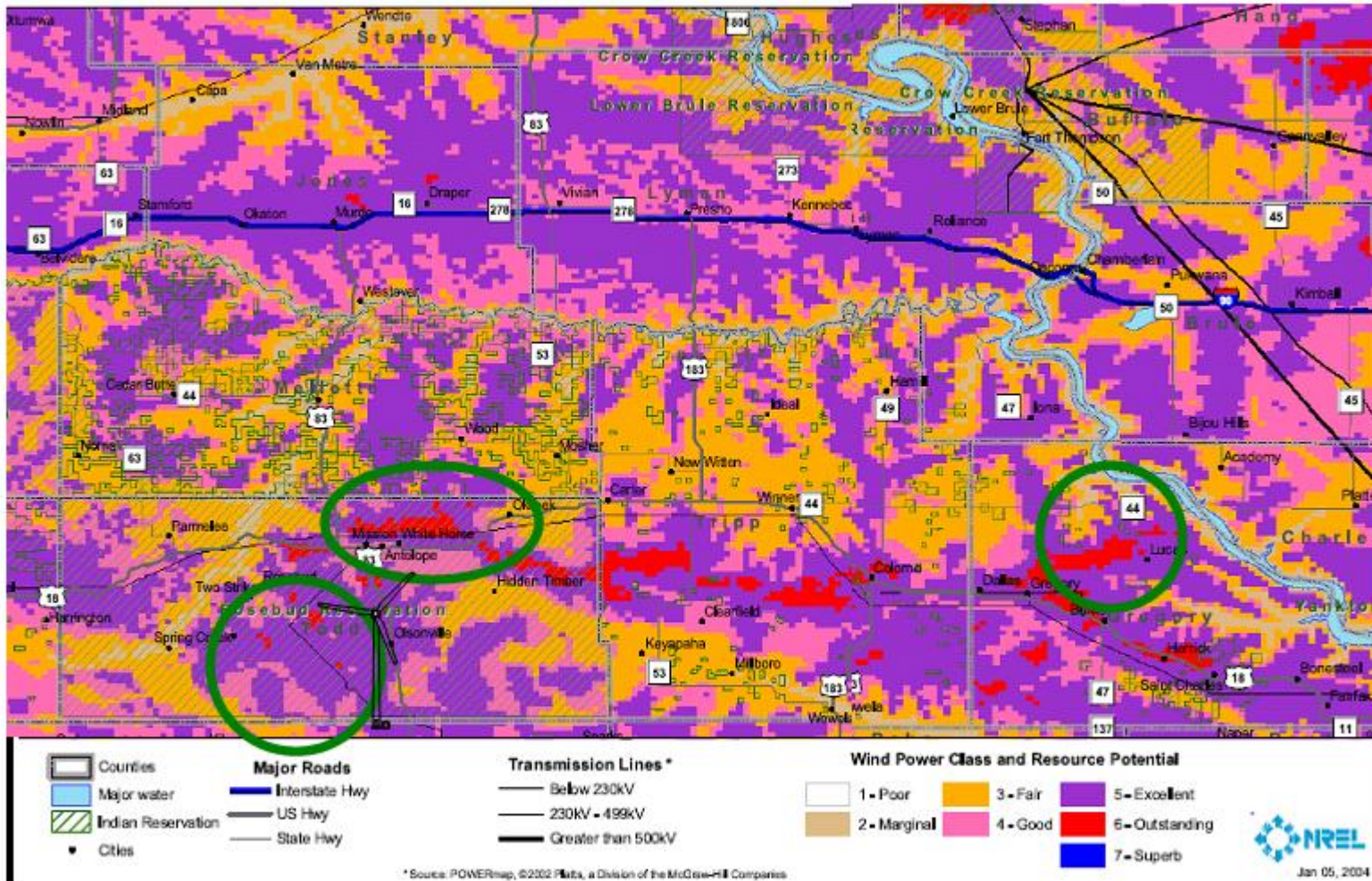
PPA potential (Xcel, Otter Tail, MRE Services)

Discussions with ICLEI Cities:

Meet Green Power / Carbon emissions reduction

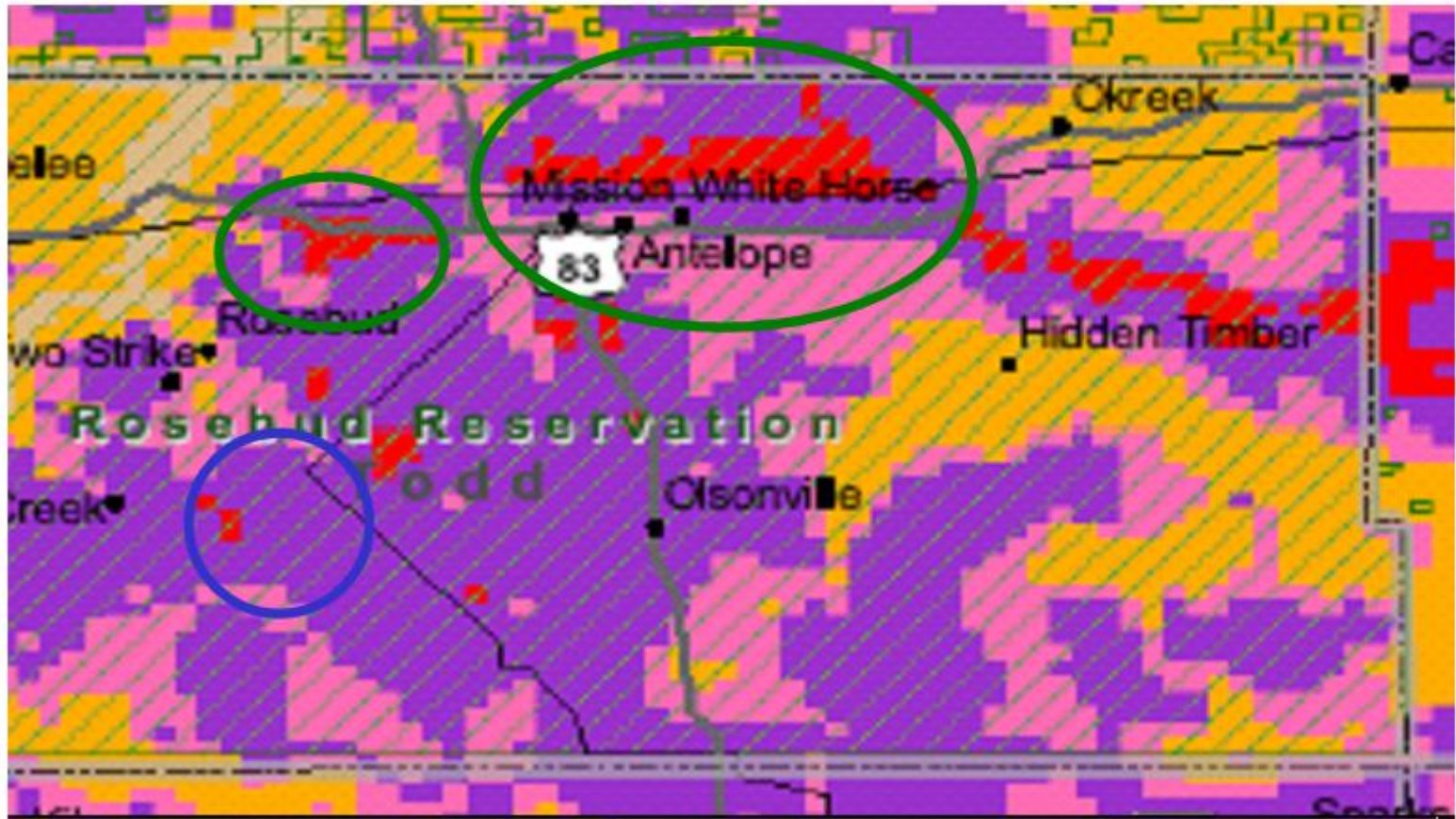


Rosebud Sioux Tribe Rosebud Reservation

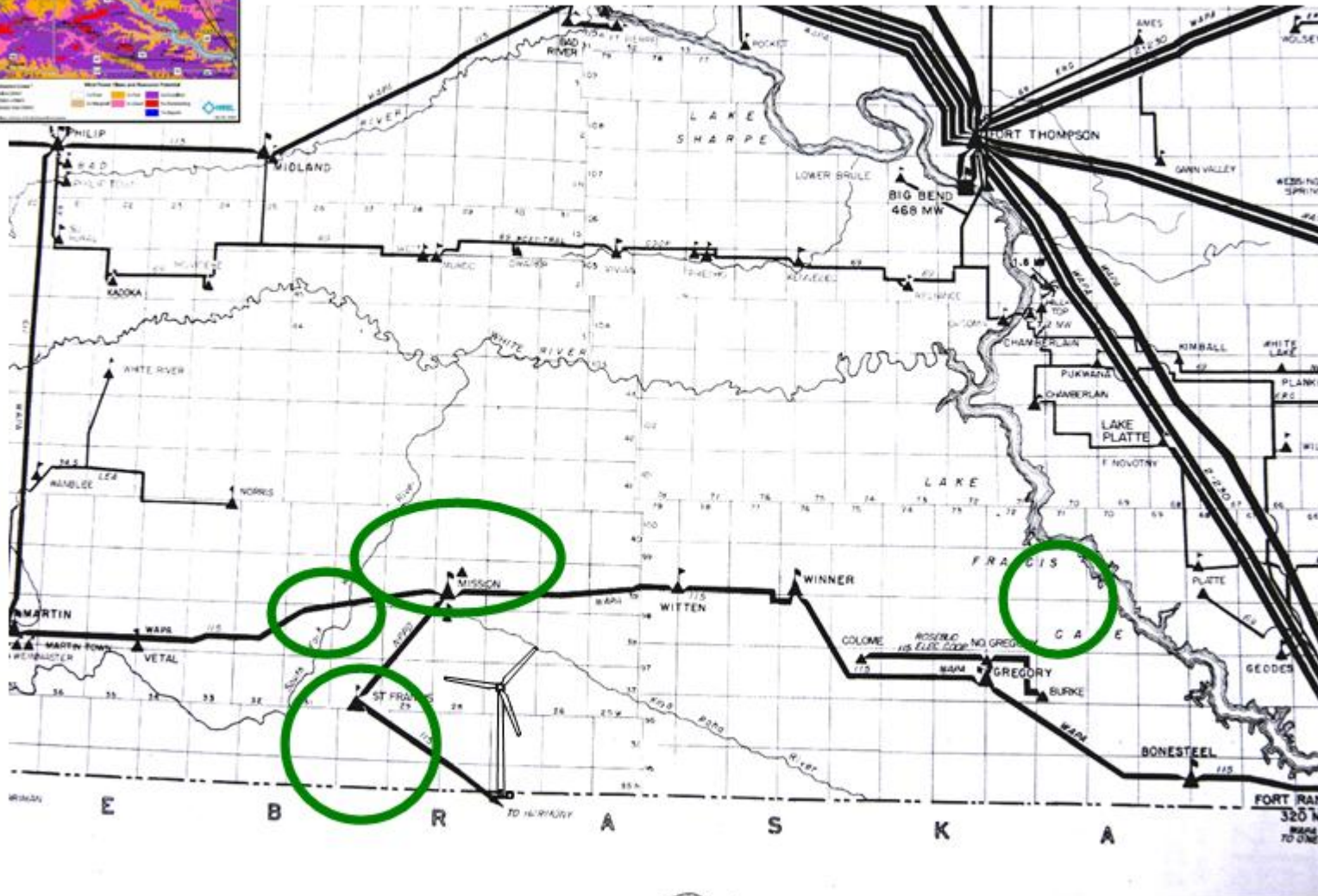
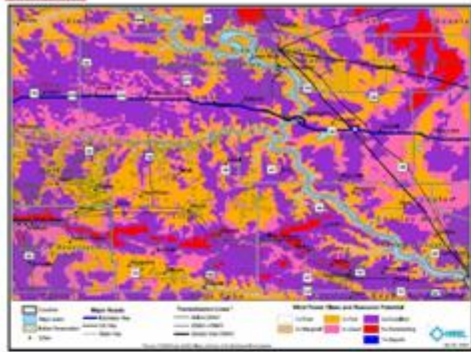




Rosebud Sioux Tribe Rosebud Reservation

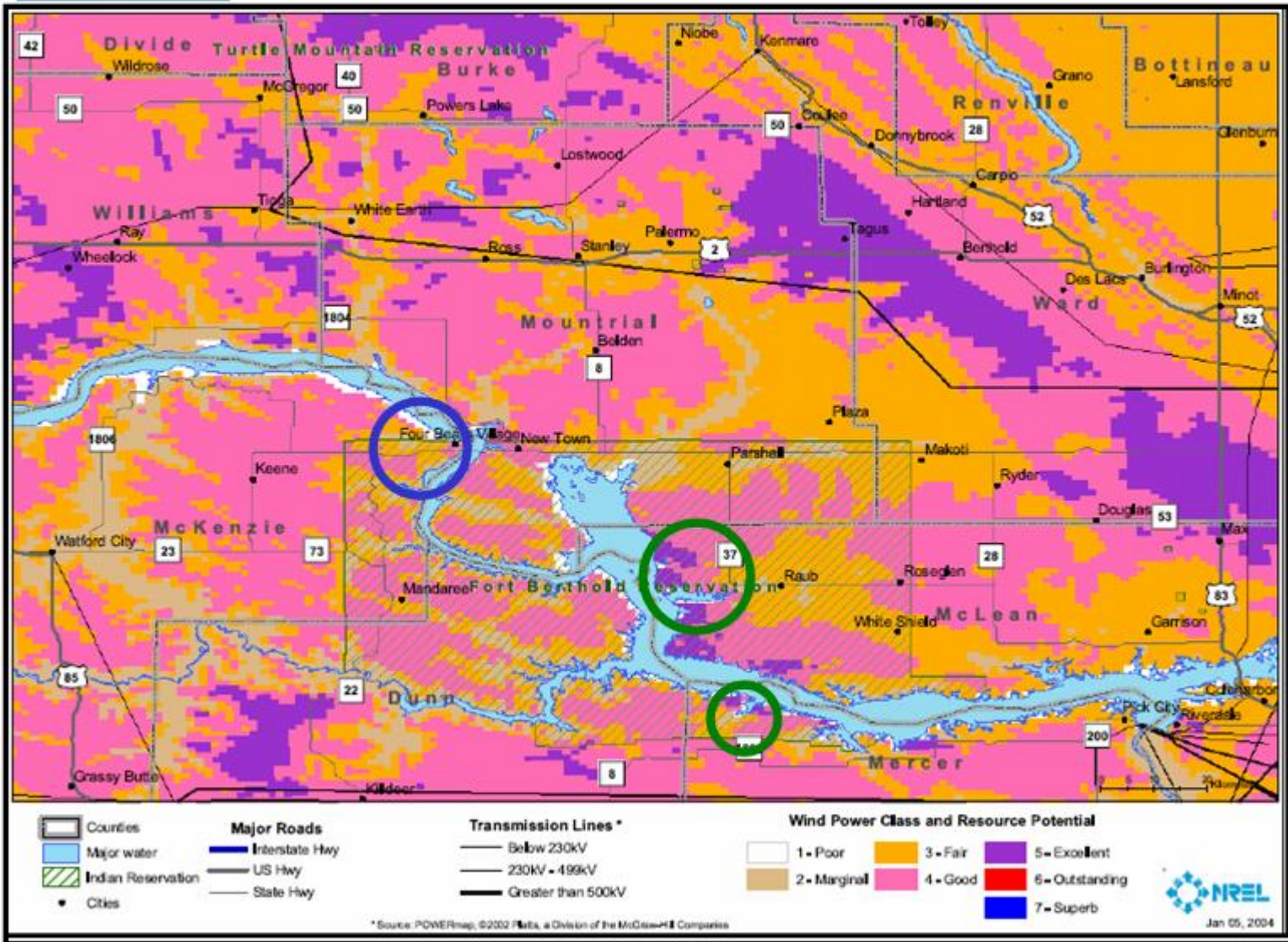


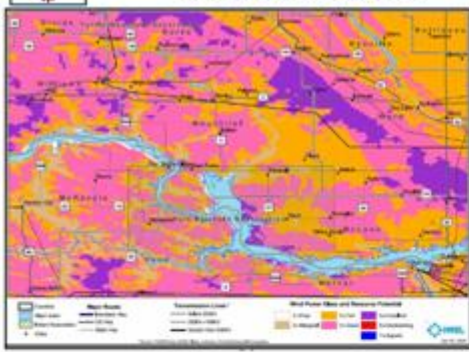
Rosebud Sioux Tribe Wind Resources and Substations



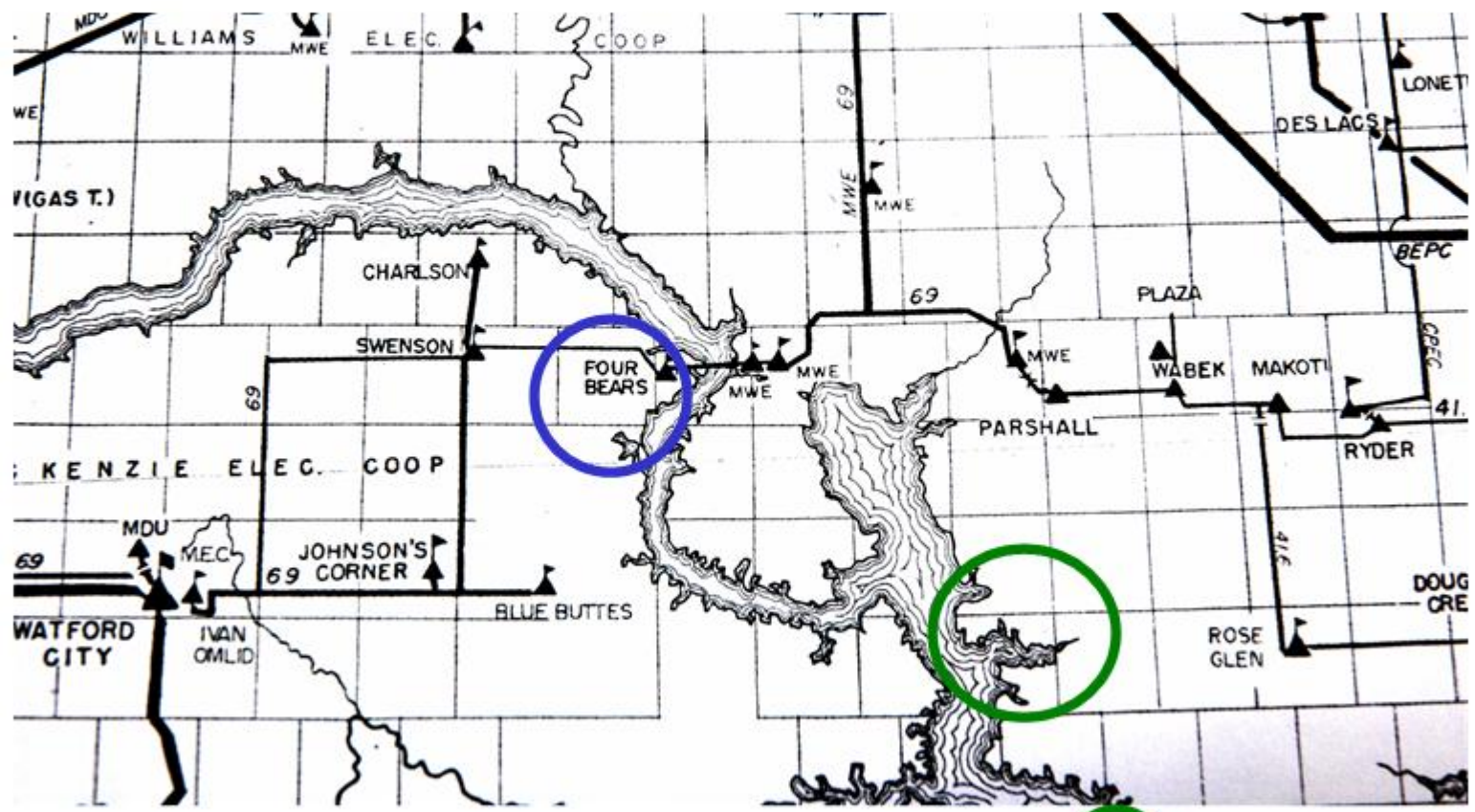


Mandan, Hidatsa & Arikara Tribes Fort Berthold Reservation



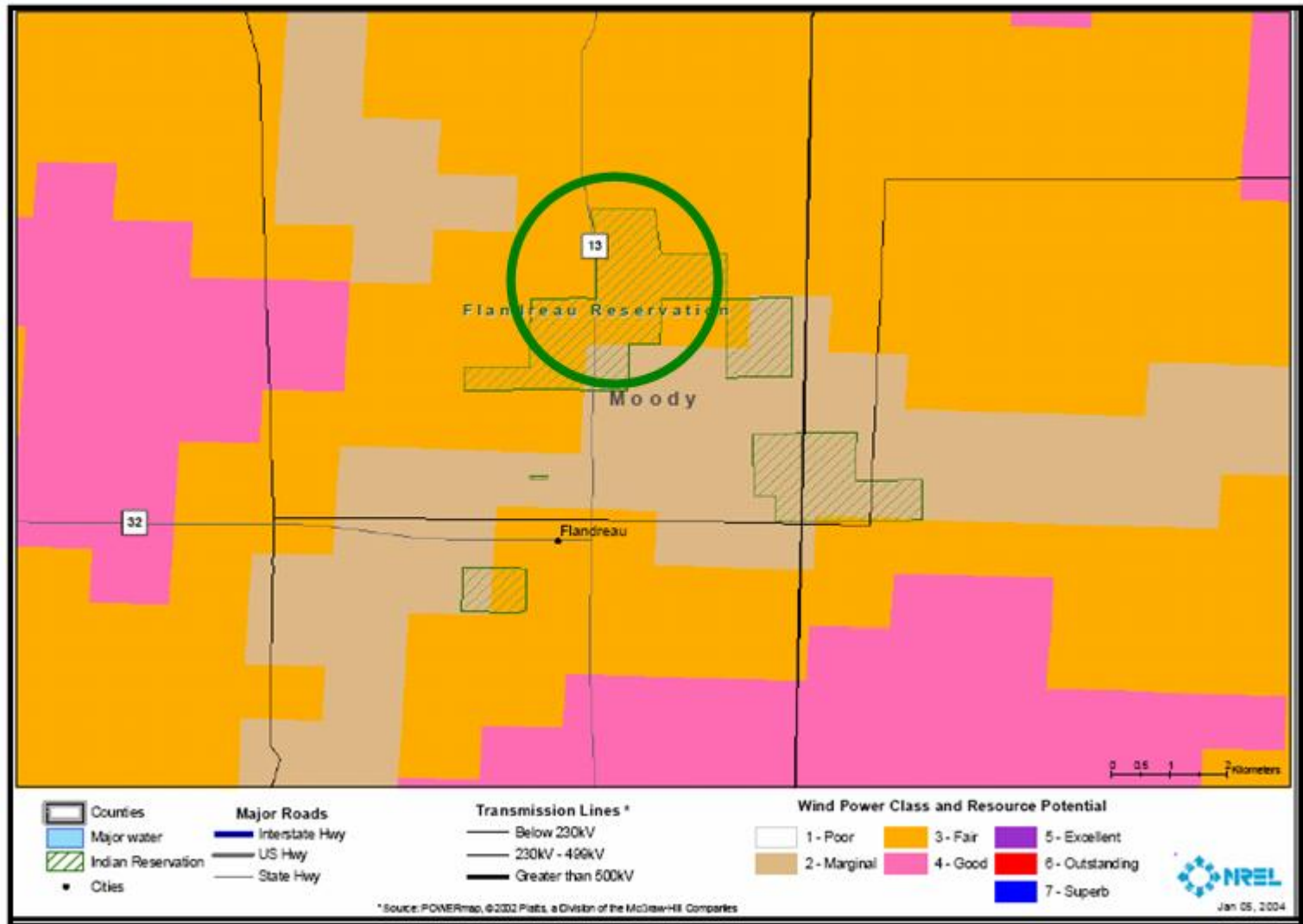


Three Affiliate Tribes Wind Resources and Substations





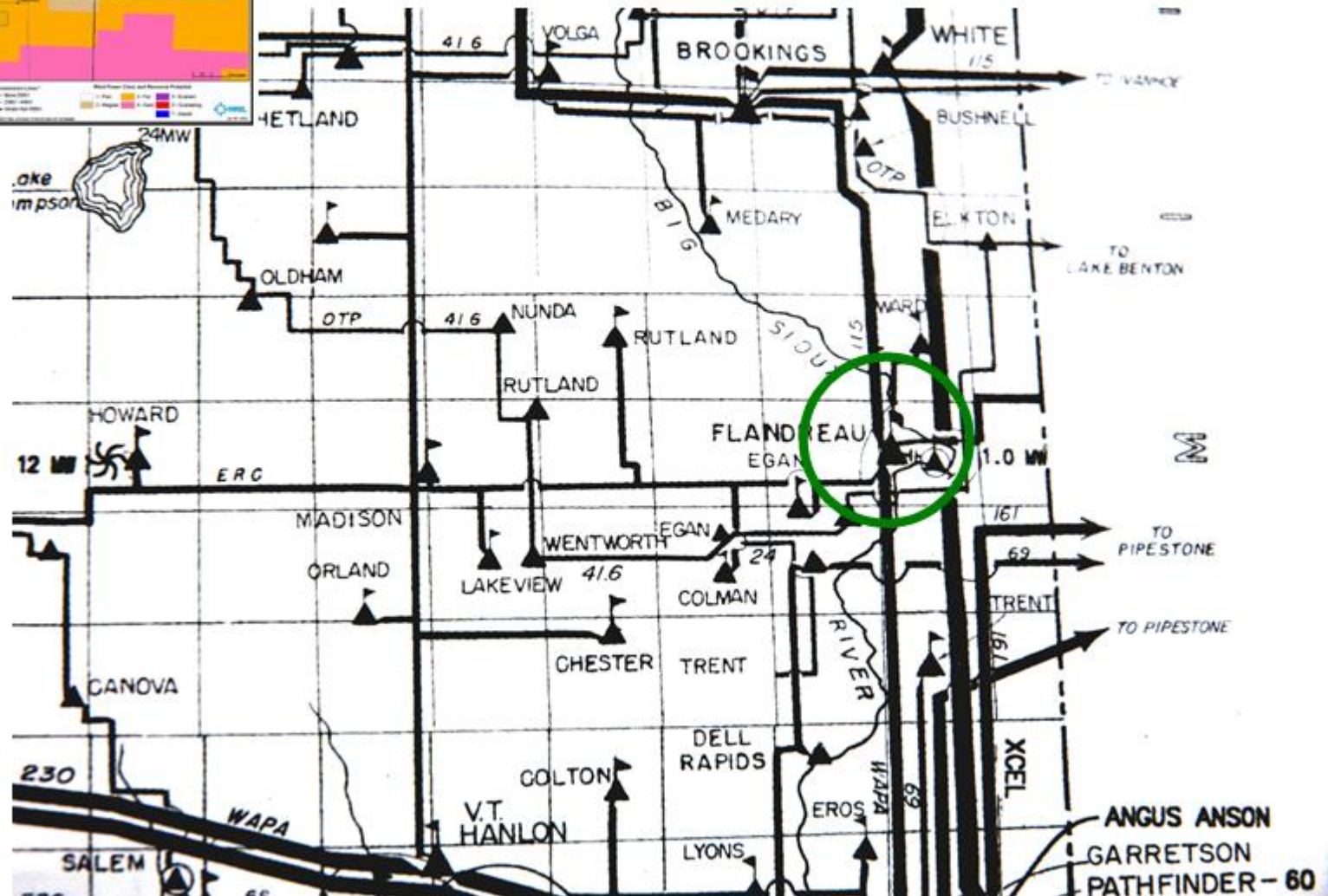
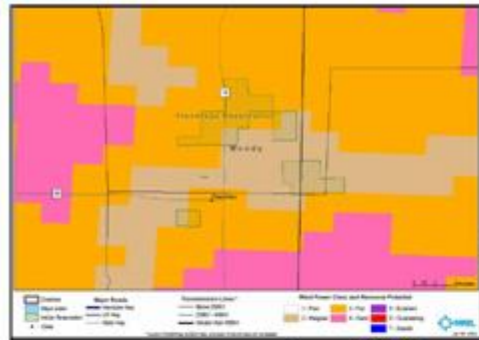
Flandreau Santee Sioux Tribe Flandreau Reservation



Jan 05, 2004

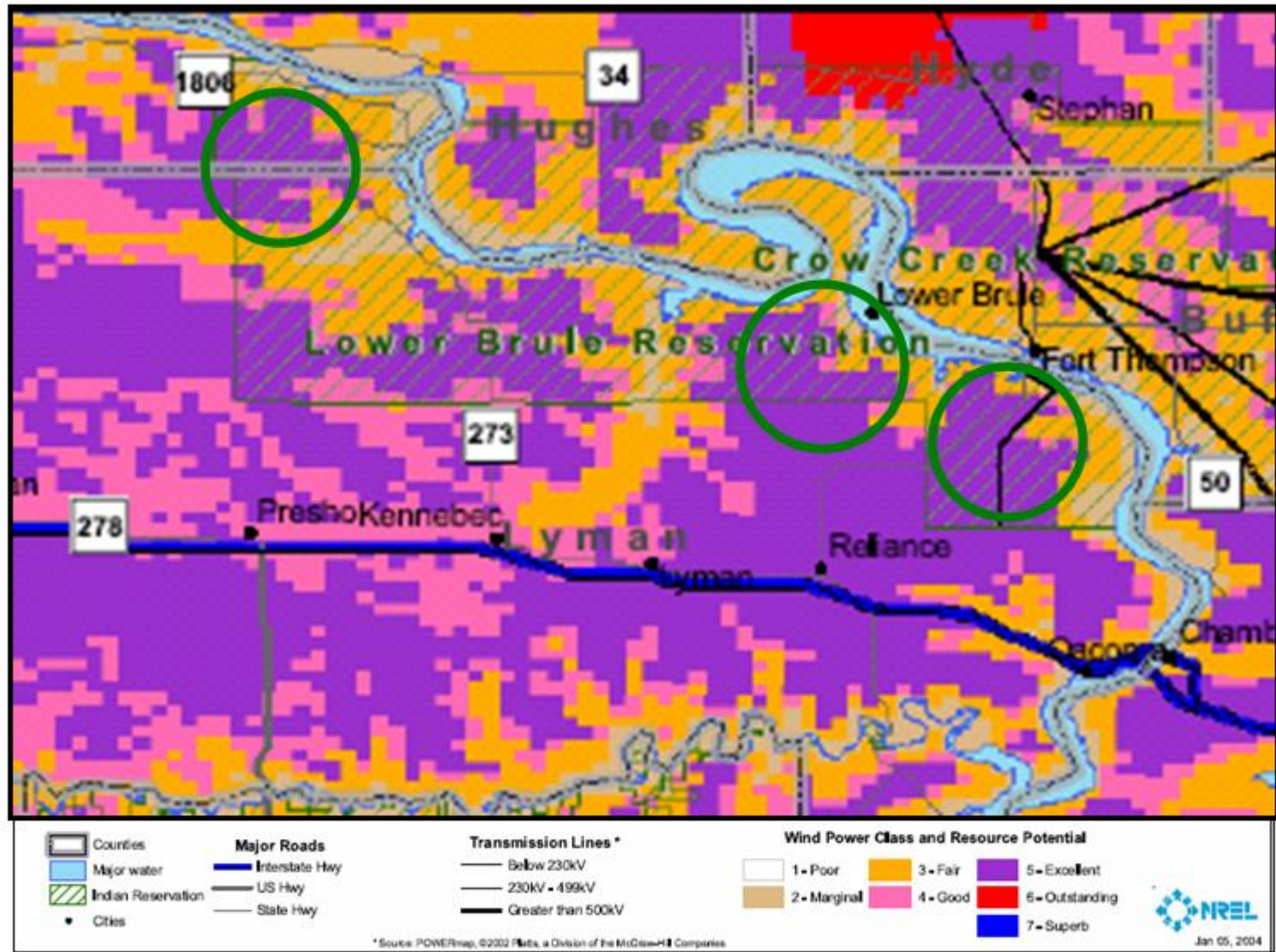


Flandreau Santee Sioux Tribe Wind Resources and Substations

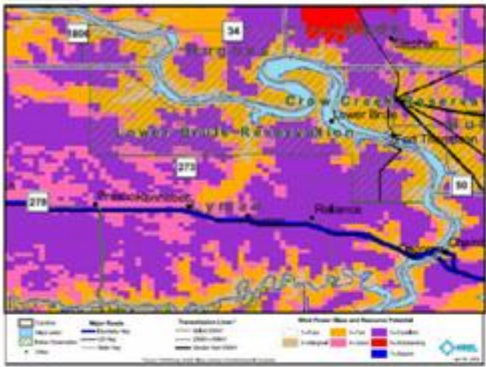




Lower Brule Sioux Tribe Lower Brule Reservation

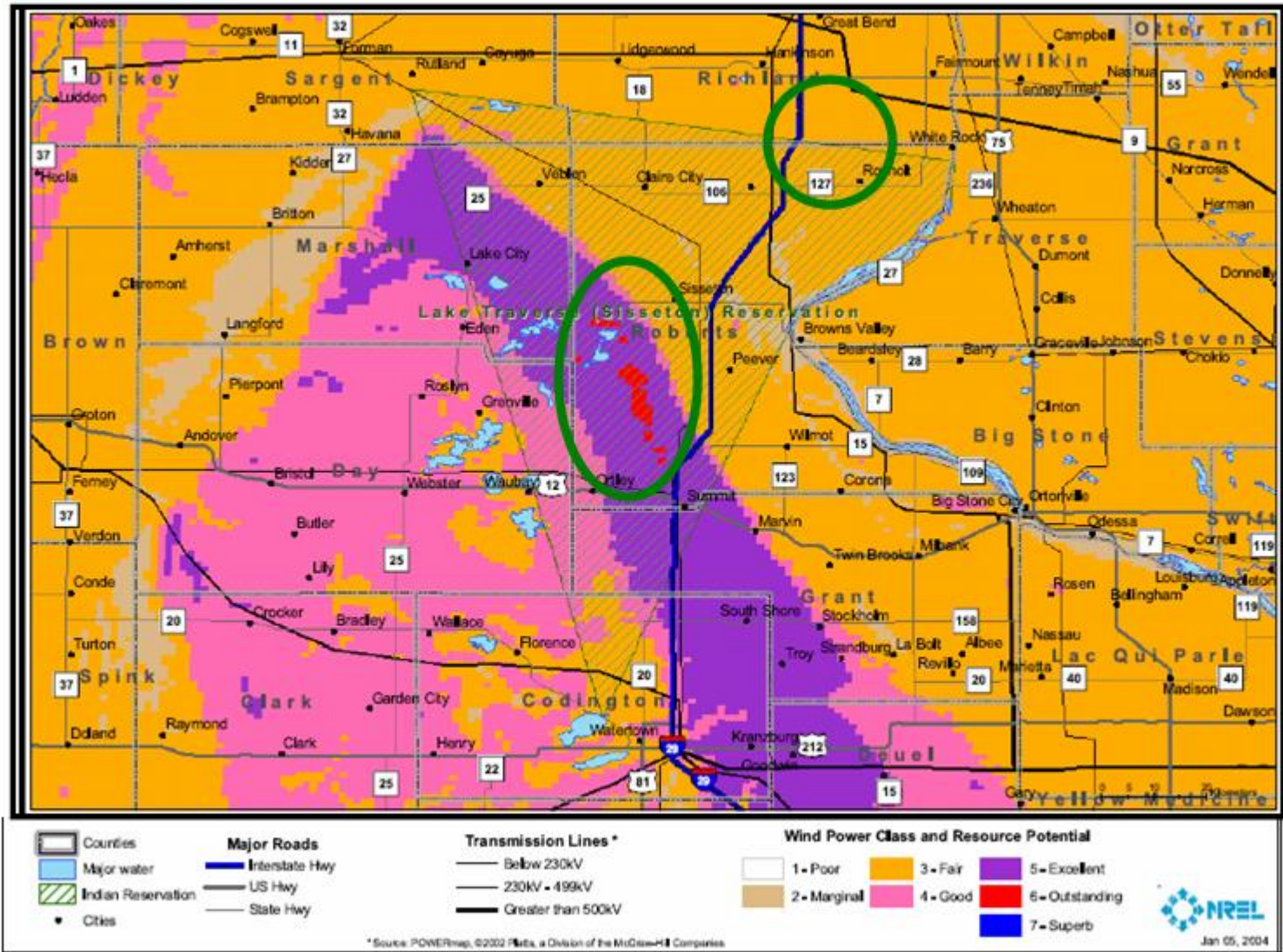


Lower Brule Sioux Tribe Wind Resources and Substations

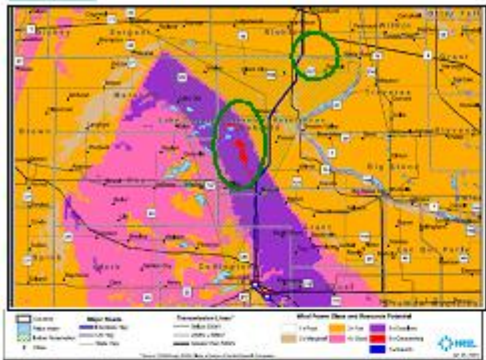




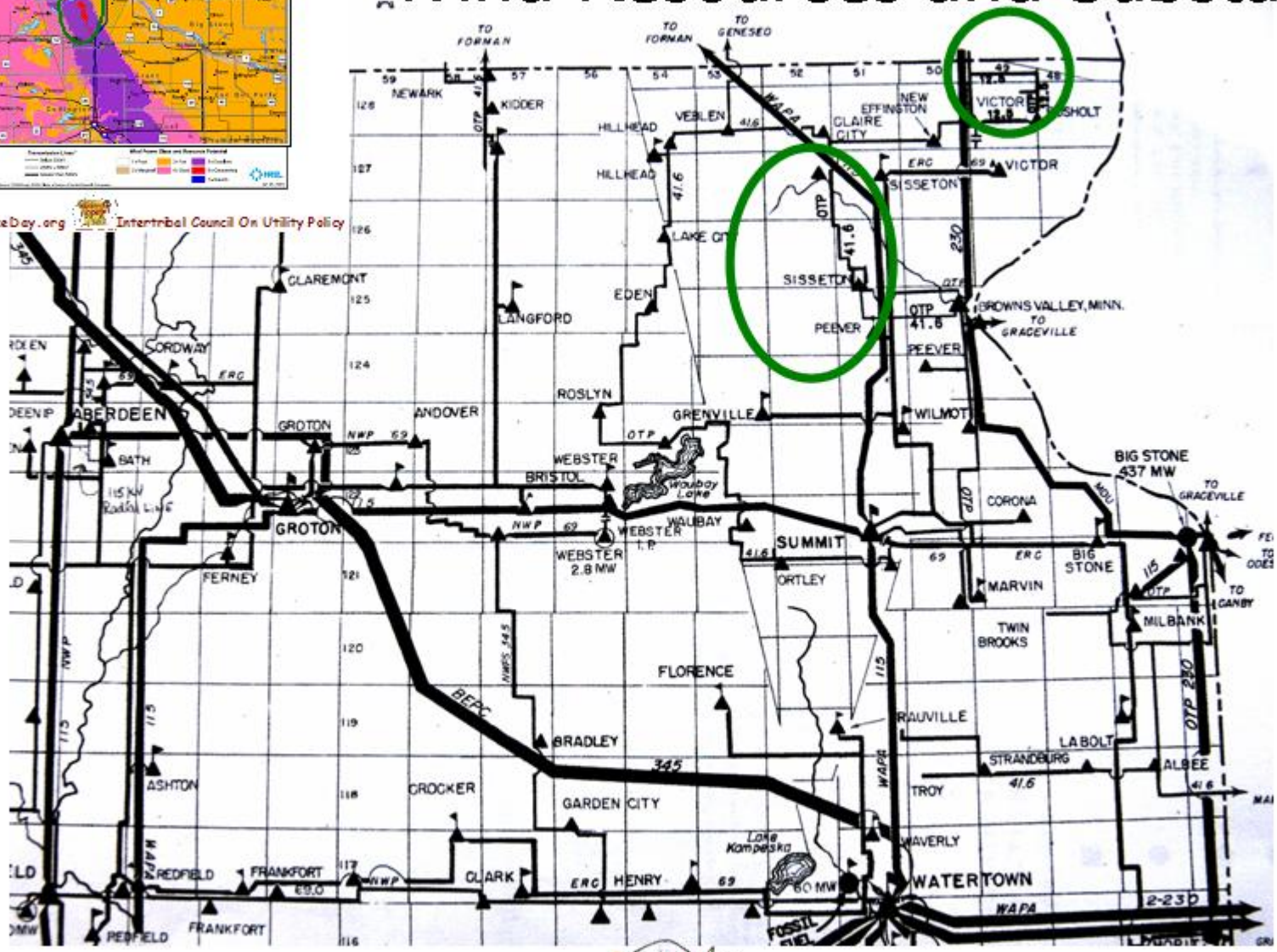
Sisseton-Wahpeton Sioux Tribe Lake Traverse Reservation



Sisseton-Wapeton Sioux Tribe Wind Resources and Substations

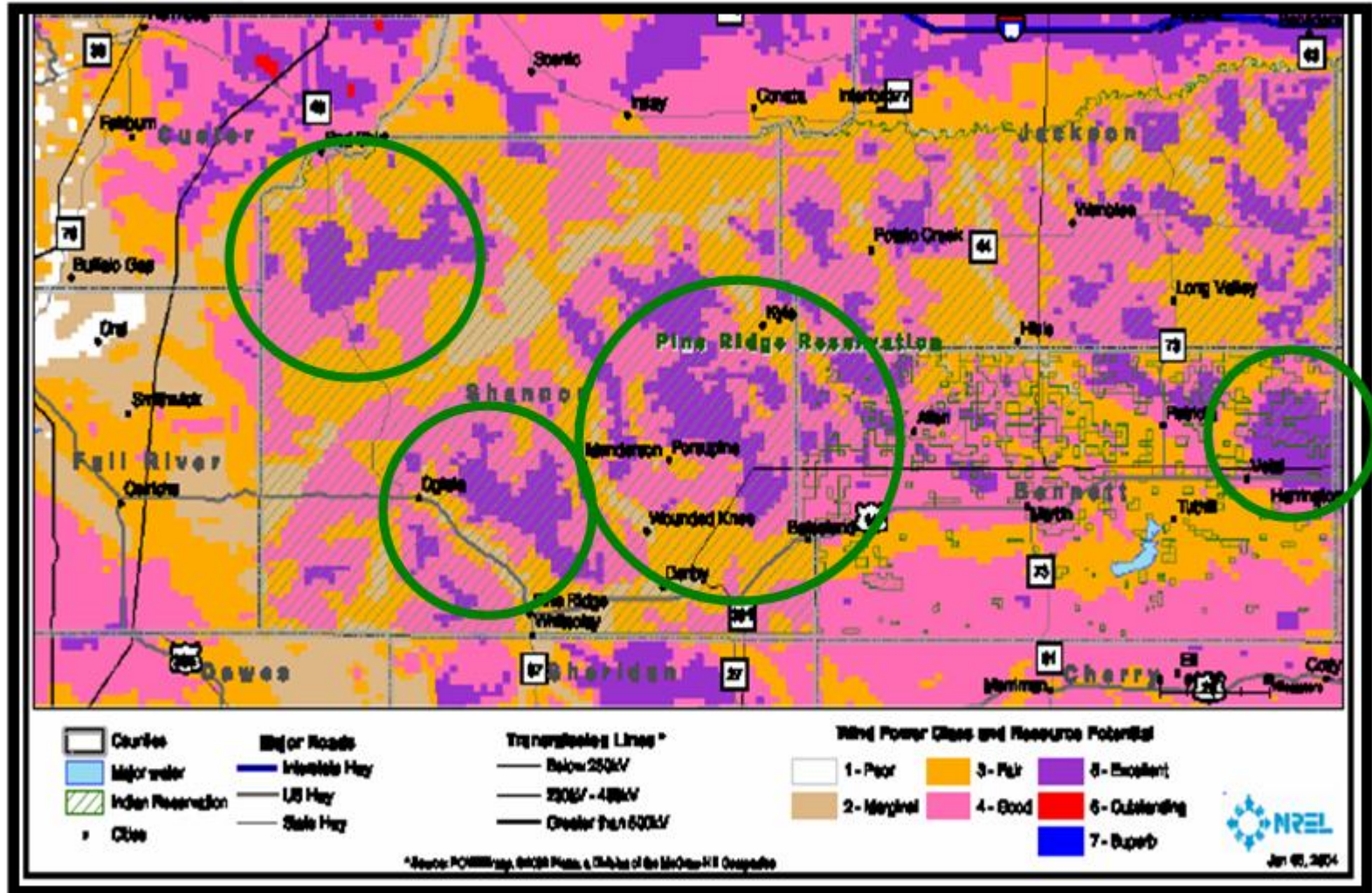


www.EnergyIndependenceDay.org Intertribal Council On Utility Policy



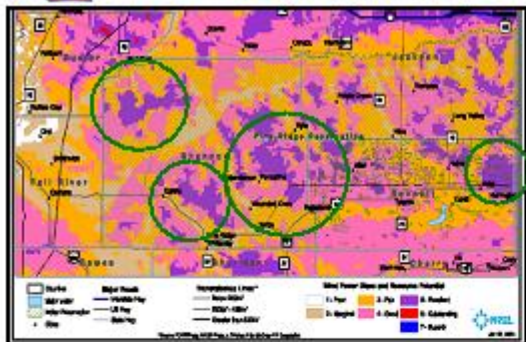


Oglala Sioux Tribe Pine Ridge Reservation





Oglala Sioux Tribe
Pine Ridge Reservation



Oglala Sioux Tribe Wind Resources and Substations



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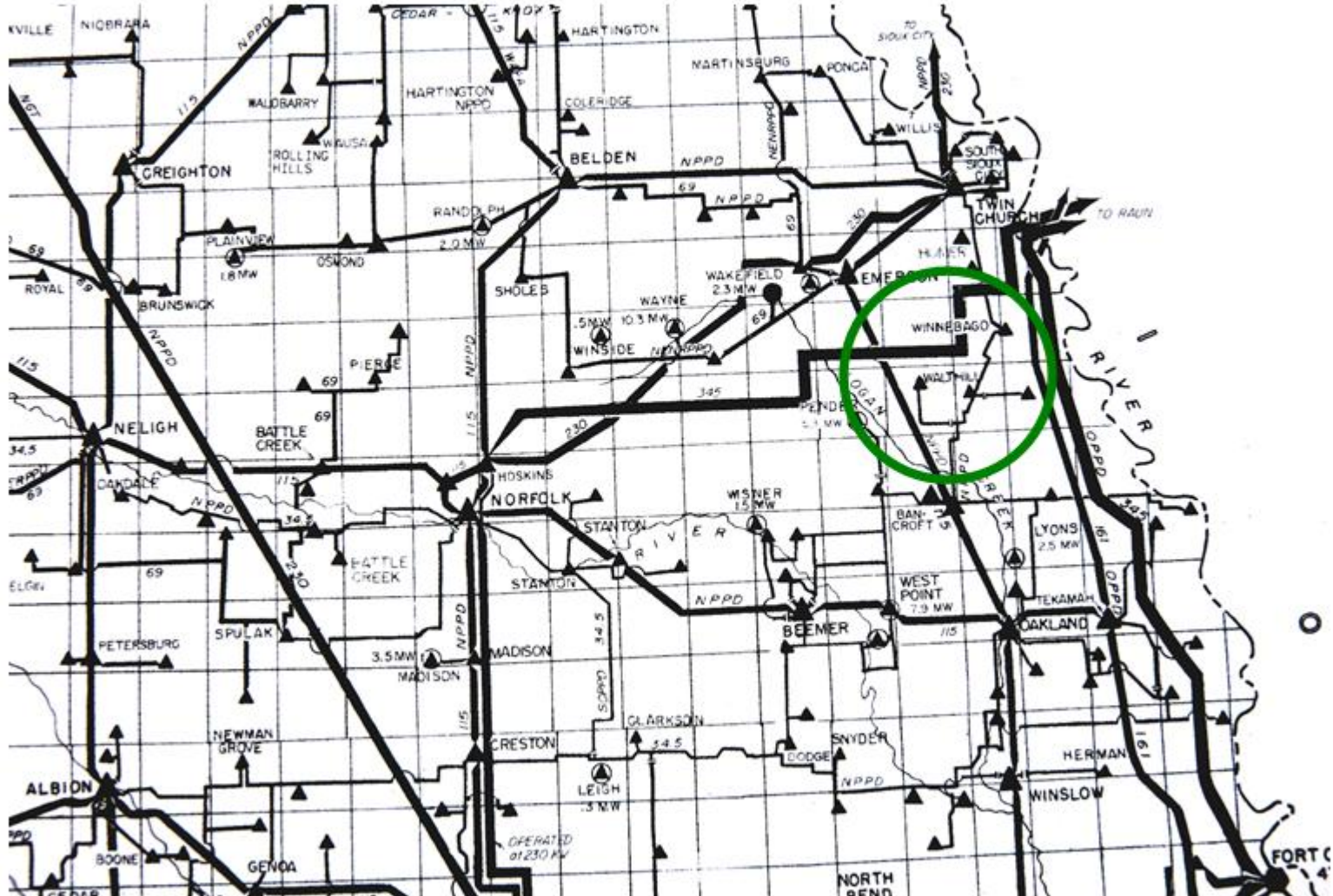
www.EnergyIndependenceDay.org



Intertribal Council On Utility Policy



Omaha Tribe Wind Resources and Substations



Rosebud Sioux & Intertribal COUP

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3. Policy Analysis and Federal Procurement
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2. Business and Market Development

Feasibility Study on the 80 MW IWPP to include:

- Site selection near transmission
- Met tower installation and wind resource assessment by a qualified meteorologist
- Phase I Environmental Assessment to include flora and fauna impacts with an Avian Study
- Geotechnical analysis
- Interconnection options and transmission capabilities for local and regional markets
- The cultural resource impact review will be completed with Tribal direction and review
- Economic modeling, and finance options

2. Business and Market Development

Potential Markets for the 80 MW Project include:

On reservation energy loads

Western Area Power Administration

Nebraska Public Power District

Basin Electric Power Cooperative

Rural electric power cooperatives

Missouri River Energy Services

ICLEI Cities for Climate Protection

Several Investor Owned Utilities, including:

- Montana-Dakota Utilities Co.
- Otter Tail Power Co.
- Xcel Energy

Where do Green Tags come from?

Global Warming
Green House Gasses

CO₂

Air & Water Pollution

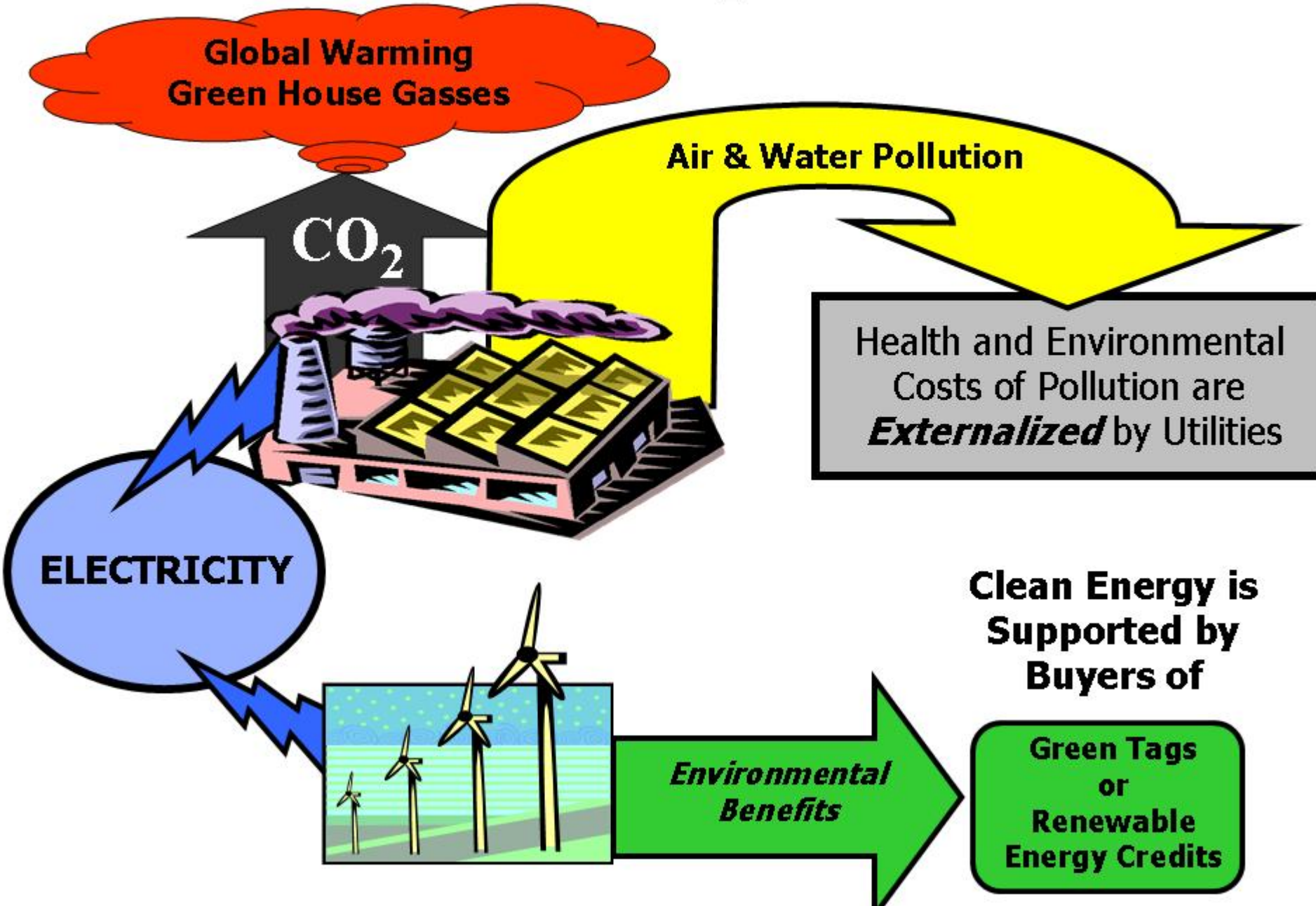
Health and Environmental
Costs of Pollution are
Externalized by Utilities

ELECTRICITY

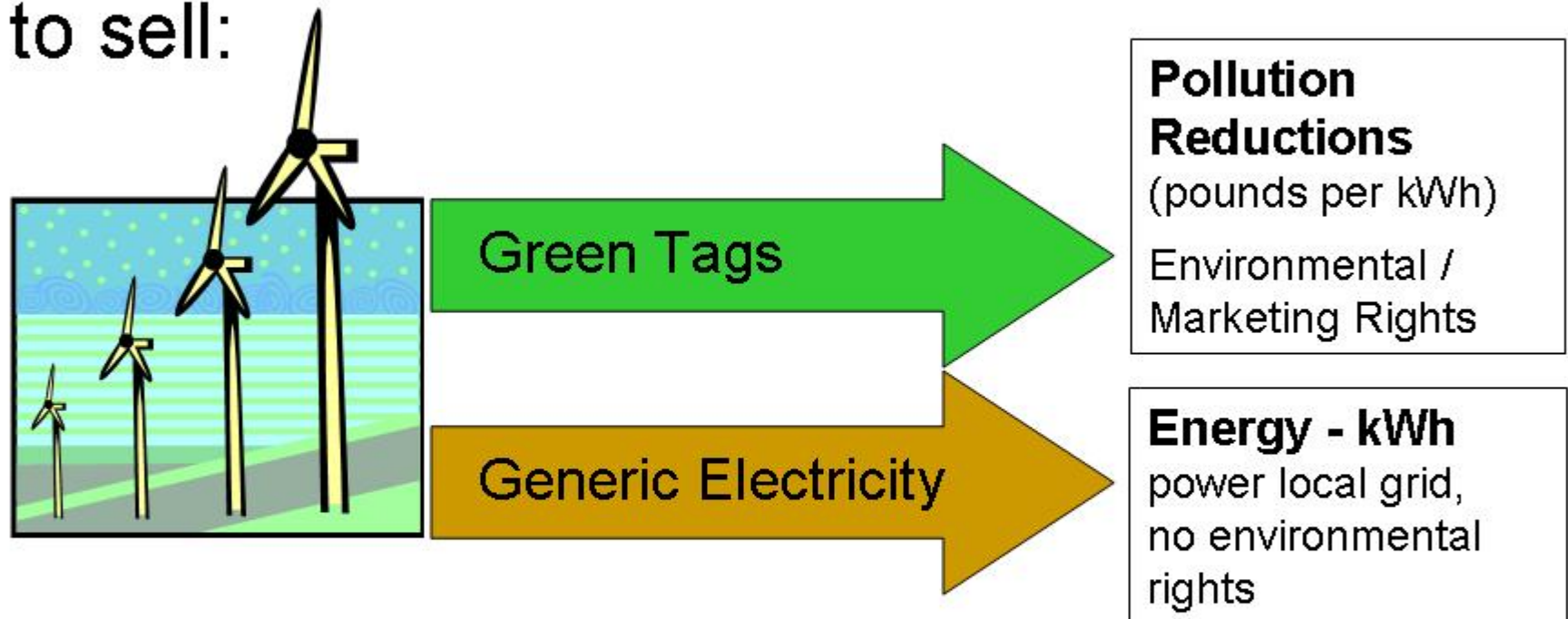
Clean Energy is
Supported by
Buyers of

*Environmental
Benefits*

Green Tags
or
Renewable
Energy Credits



Renewable Projects have two commodities to sell:



GREEN TAGS – the rights to claim the pollution reductions /environmental benefits and marketing rights from a certain quantity (kWh) of renewable electricity produced.

Marketing Tribal Green Tags

Reaching out to the marketplace...

12 TONS SO CALLED YOU!

Over 12 tons of carbon dioxide emissions – the kind of greenhouse gases that cause global warming – are thousands of times more powerful than the greenhouse gases that cause global warming. The most important environmental issue of our time.

Become a **tribalGreen™** member today. You'll help build the first Native American renewable energy utility and reduce the CO₂ from the same region on global warming as if you powered and heated your home entirely with wind energy for a whole year! When homes can identify ways to heating and natural gas use and, which causes more CO₂ emissions than any other industrial source.

Sign Up Now!
Go to www.nativeenergy.com/12
or call 1-800-524-6828

NativeEnergy
Bringing New Renewables To Market

They know how to fight global warming... Do you?

Students at the Yellow School in the National Renewable Resource Center are learning about renewable energy sources. By taking action on climate change, we can reduce our carbon footprint and help protect the planet for future generations. The NativeEnergy TribalGreen™ program is helping schools across the country to do this.

Become a **tribalGreen™** member today. You'll help build the first Native American renewable energy utility and reduce the CO₂ from the same region on global warming as if you powered and heated your home entirely with wind energy for a whole year! When homes can identify ways to heating and natural gas use and, which causes more CO₂ emissions than any other industrial source.

Sign up today and reduce CO₂ emissions!
Go to www.nativeenergy.com/12
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NativeEnergy
Bringing New Renewables To Market

The First Native American Wind Turbine Now Stands Tall...

You can help build the next!

Take a meaningful step in the fight against global warming. **tribalGreen™** members help fund thousands of tons of global warming pollution less each year.

Join our **tribalGreen™** partners including the TetonWind Co., Fort & Jerry's Clean Energy Fund, RoundHorn, CIP Energy Services, HEC, Mountain, Camp America, Clear the Land Project and many more businesses and individuals across the nation.

They've helped build the first Native American wind farm and are now looking to fight global warming. You can help build the next.

NativeEnergy
Bringing New Renewables To Market

Take Action Today
by visiting
www.nativeenergy.com/12
or call 1-800-524-6828

...fighting global warming!

NativeEnergy
Bringing New Renewables To Market

www.NativeEnergy.com

www.EnergyIndependenceDay.org



Intertribal Council On Utility Policy

NativeEnergy is now Native-Owned!



Intertribal COUP Executive Council and the founders of *NativeEnergy*

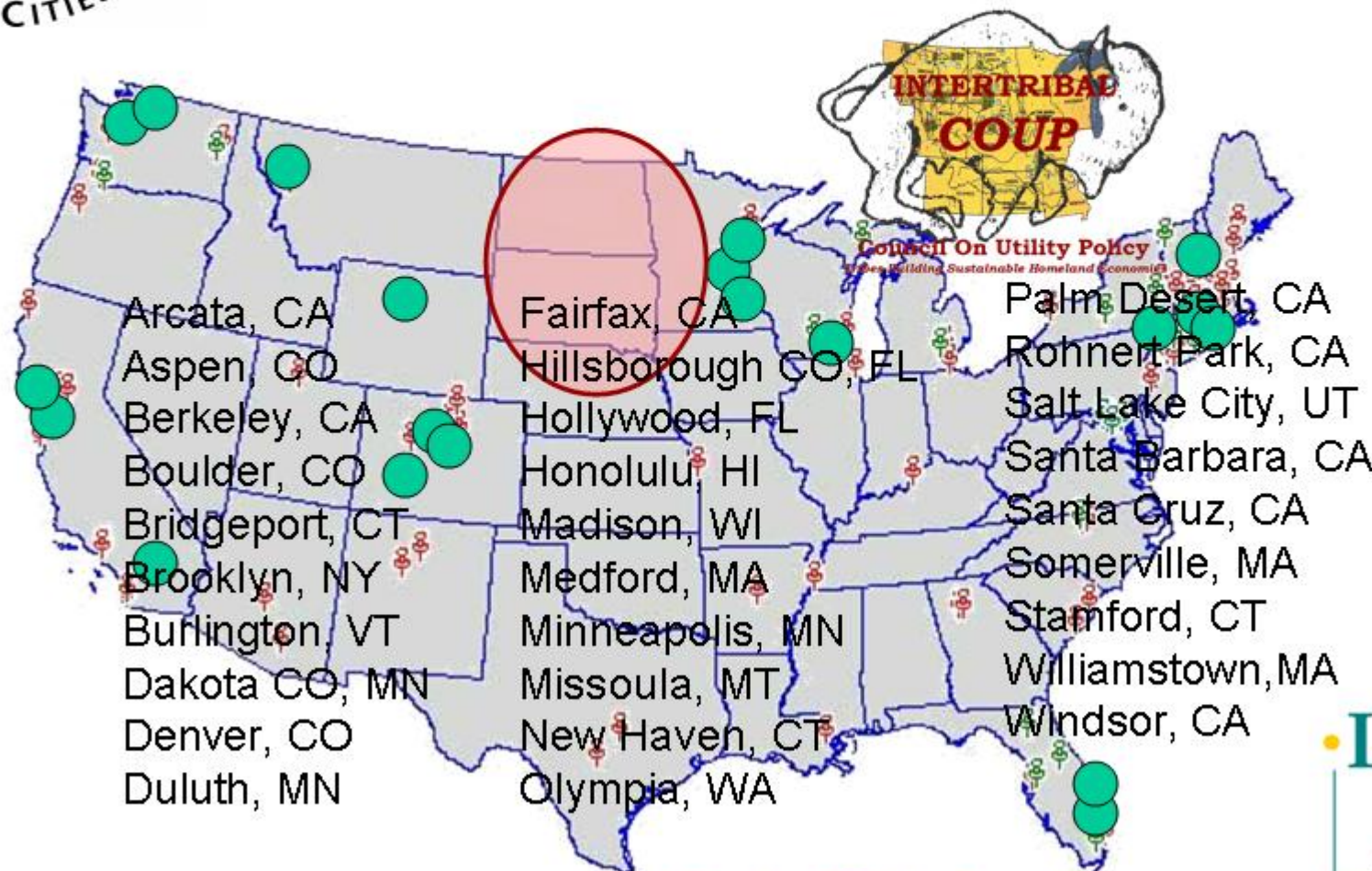
Intertribal COUP acquires majority stake in leading renewable energy marketer, on behalf of its member tribes.

Rosebud, SD and Charlotte, VT (August 16, 2005) – *NativeEnergy*, a leading national marketer of Renewable Energy Credits (RECs) and greenhouse gas offsets, and the nonprofit Intertribal Council On Utility Policy (COUP), announced today that COUP has acquired a majority interest in *NativeEnergy*...

www.NativeWind.org



American Leadership Energy Independence Day. org Local Government/Tribal Partnership Signers to Date



www.NativeWind.org





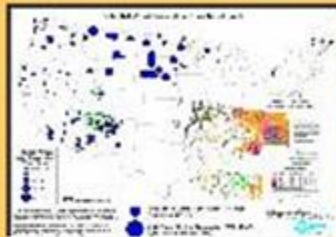
NATIVEWIND.ORG

NativeWind ... The Coming Generation!

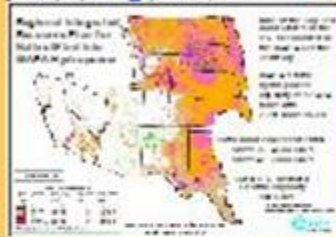


Intertribal COUP Public Service Announcement

ENERGY INDEPENDENCE



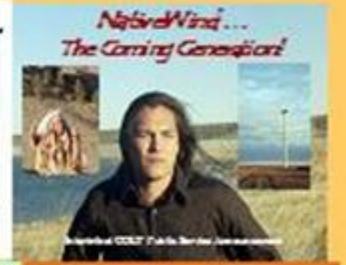
Residential Solar & Utility Scale CO2/F
 Switching only to solar for electricity can reduce CO2 emissions by 50% in the United States. This is based on a 2007 study by the National Renewable Energy Laboratory (NREL).



Learning We Live In A WINDSHEQ !
 The Midwest Wind Energy Region is the World's Just 100 Miles from the Region of Greatest Energy Demand and Air Quality Concerns. Wind Energy is a Clean, Renewable Energy Source.



Learning We Live In A WINDSHEQ !
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Electric Generation Makes MORE than Electrons
 CO2 emissions from power plants are a major contributor to global warming. Wind energy is a clean, renewable source of electricity that can help reduce CO2 emissions.

Reaching out to the marketplace...
 ...fighting global warming!

NATIVEWIND

INTERTRIBAL COUP - COUNCIL ON UTILITY POLICY
 ICLEI - CITIES FOR CLIMATE PROTECTION
 NATIVEWIND.ORG



EPA Air Innovations Conference

Tribal Renewable Energy Efforts Helping on Air Quality and Climate Change Issues

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3. Policy Analysis and Federal Procurement:

Intertribal COUP has worked on regional federal agency power purchase policies for over 10 years:

- WAPA: Supplemental and Replacement power
- Ellsworth AFB: Green Power
- National Labs: Green Tags

Note: Discussions continue with WAPA on supplemental power purchases to meet contractual obligations with customers with hydropower allocations which have increased from \$20 million annually to over \$200 million over the past 10 years.

Implementing the Energy Act

<http://www.wapa.gov/newsroom/cct/2005/sept9/27no181a.htm>

Title V—Indian Energy

Section 2605 The Secretary of Energy must conduct a study describing the use and quantity of power allocations sold to, or for the benefit of, tribes by the PMAs and the barriers that impede tribal access to Federal power. The report must describe how to remove those barriers and improve the ability of the PMAs to deliver Federal power to tribes.

Section 2606 of EPAAct is amended to require the Secretary of Energy to conduct a study of the cost and feasibility of developing a demonstration project that uses wind energy generated by tribes and Federal Missouri River hydropower to supply firming power to Western.

Section 504 requires the Energy and Interior secretaries to consult with Indian tribes to the maximum extent practical.

ENERGY POLICY ACT OF 2005

Section 2602 (d) Federal Agencies-Indian Energy Preference-

(1) In purchasing electricity or any other energy product or by-product, a Federal agency or department may give preference to an energy and resource production enterprise, partnership, consortium, corporation, or other type of business organization the majority of the interest in which is owned and controlled by 1 or more Indian tribes.

(2) In carrying out this subsection, a Federal agency or department shall not--

(A) pay more than the prevailing market price for an energy product or by-product; or

(B) obtain less than prevailing market terms and conditions.

Implementing the energy bill at WAPA

<http://www.wapa.gov/newsroom/cct/2005/sept9/27no181a.htm>

Title V—Indian Energy

Section 2602 of EAct is amended to allow Federal agencies to give preference to electricity purchased from tribes at prices not greater than prevailing market rates.

Section 2604 of EAct is amended to provide tribes with additional authority for entering into leases or business agreements related to energy-resource development or construction and operation of energy and transmission facilities on tribal lands. It limits lease and agreement terms to 30 years.

ENERGY POLICY ACT OF 2005

SEC. 203. FEDERAL PURCHASE REQUIREMENT.

(a) Requirement- The President, acting through the Secretary, shall seek to ensure that, to the extent economically feasible and technically practicable, of the total amount of electric energy the Federal Government consumes during any fiscal year, the following amounts shall be renewable energy:

- (1) Not less than 3 percent in fiscal years 2007 through 2009.
- (2) Not less than 5 percent in fiscal years 2010 through 2012.
- (3) Not less than 7.5 percent in fiscal year 2013 and each fiscal year thereafter

(c) Calculation- For purposes of determining compliance with the requirement of this section, **the amount of renewable energy shall be doubled if--**

- (1) the renewable energy is produced and used on-site at a Federal facility;
- (2) the renewable energy is produced on Federal lands and used at a Federal facility; or
- (3) **the renewable energy is produced on Indian land as defined in title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501 et seq.) and used at a Federal facility.**

Rosebud Sioux & Intertribal COUP

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7. Capacity Building



4. Transmission and Interconnection Studies

- Site selection options: Tribal lands near WAPA substations or other utility substations interconnected to WAPA transmission or for on reservation community wind power.
- Tribes make the final determination on site selection.
- Recommendations/analysis with interconnection consultant Tom Wind.
- Need for preliminary interconnection analysis and cost review at each site prior to meeting with WAPA.
- Intertribal COUP successful at including most 80 MW sites in the WAPA Dakota Wind Study (500 MW in North Dakota and South Dakota)
- Need for continued expert input of COUP plan at each of the study site locations.

Restoring and Recharging “The Federal Renewable Energy Grid”



*Serving the West
with Federal Hydropower*

... And Tribal Renewable Energy

- Cities & Tribes are on WAPA grid as eligible WAPA "Preference Customers"
- Federal trust responsibility to Tribes
- Sustainable Homeland Economies
- Great Wind/Hydro Dynamo Potential
- Diminishing Hydropower Resource
- Clean Air Quality and Attainment
- The grid, once 100% renewable, is now only 20% hydropower and 80% coal
- Federal Renewable Energy Grid 20% hydro & 30% wind / 50% coal-gas



Missouri River Basin



www.NativeWind.org

Implementing the energy bill at WAPA

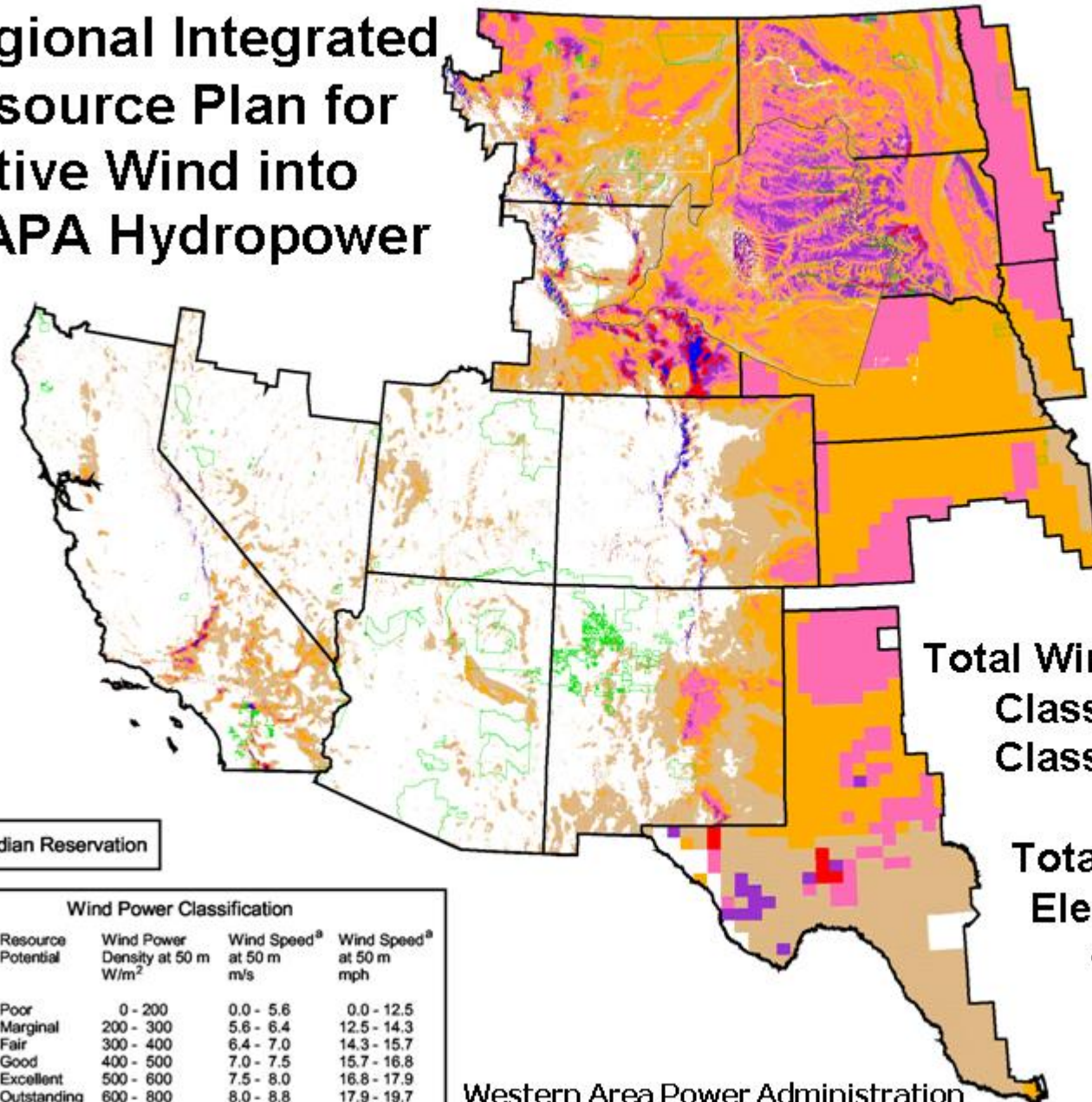
<http://www.wapa.gov/newsroom/cct/2005/sept9/27no181a.htm>

Title V—Indian Energy

Section 2605 of EPAct requires Federal power marketing administrators to encourage Indian tribal energy development. New amendments under this section include:

- Tribes are allowed to use power allocations from Western to meet firming and reserve needs of Indian-owned energy projects on Indian land.
- Western may purchase non-Federally generated power from tribes to meet its firming and reserve requirements.
- Western may provide technical assistance for tribes wanting to use the high-voltage transmission system to deliver electric power.

Regional Integrated Resource Plan for Native Wind into WAPA Hydropower



Nine of the Top Ten Wind States in the U.S. are located in the WAPA Service Territory

WAPA's total hydro-power capacity is 17,474 MWs with 2,791 MWs UGPR

Total Wind Power Potential:
 Class 3+ 4,500 GWs
 Class 4+ 2,000 GWs

Total U.S. Installed Electric Capacity
 ~ 800 GWs

U.S. Department of Energy
 National Renewable Energy Laboratory



Indian Reservation

Wind Power Classification

| Wind Power Class | Resource Potential | Wind Power Density at 50 m W/m ² | Wind Speed ^a at 50 m m/s | Wind Speed ^a at 50 m mph |
|------------------|--------------------|---|-------------------------------------|-------------------------------------|
| 1 | Poor | 0 - 200 | 0.0 - 5.6 | 0.0 - 12.5 |
| 2 | Marginal | 200 - 300 | 5.6 - 6.4 | 12.5 - 14.3 |
| 3 | Fair | 300 - 400 | 6.4 - 7.0 | 14.3 - 15.7 |
| 4 | Good | 400 - 500 | 7.0 - 7.5 | 15.7 - 16.8 |
| 5 | Excellent | 500 - 600 | 7.5 - 8.0 | 16.8 - 17.9 |
| 6 | Outstanding | 600 - 800 | 8.0 - 8.8 | 17.9 - 19.7 |

^aWind speeds are based on a Weibull k value of 2.0

Western Area Power Administration
 Wind Power Potential

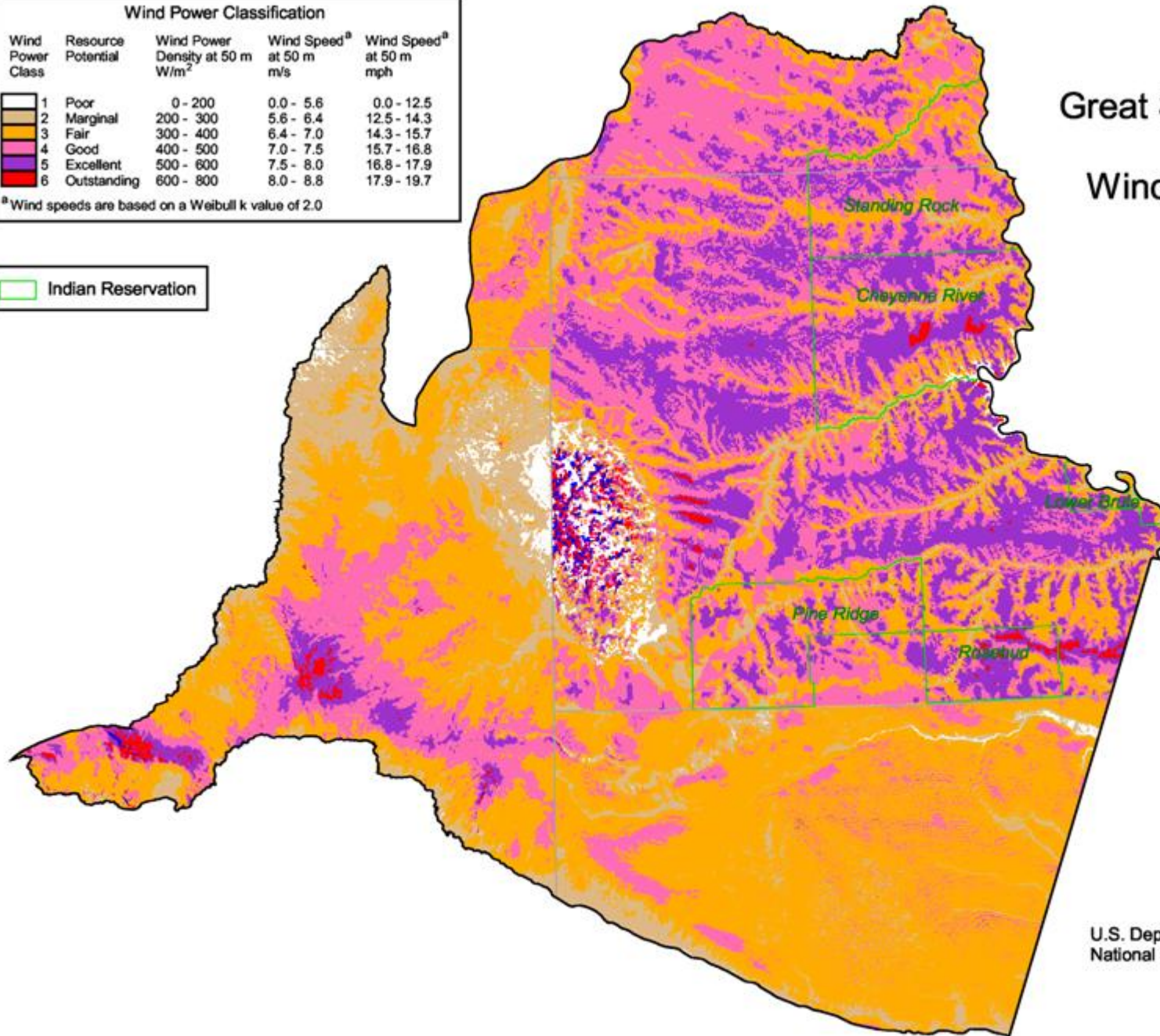
Wind Power Classification

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| 1 | Poor | 0 - 200 | 0.0 - 5.6 | 0.0 - 12.5 |
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| 3 | Fair | 300 - 400 | 6.4 - 7.0 | 14.3 - 15.7 |
| 4 | Good | 400 - 500 | 7.0 - 7.5 | 15.7 - 16.8 |
| 5 | Excellent | 500 - 600 | 7.5 - 8.0 | 16.8 - 17.9 |
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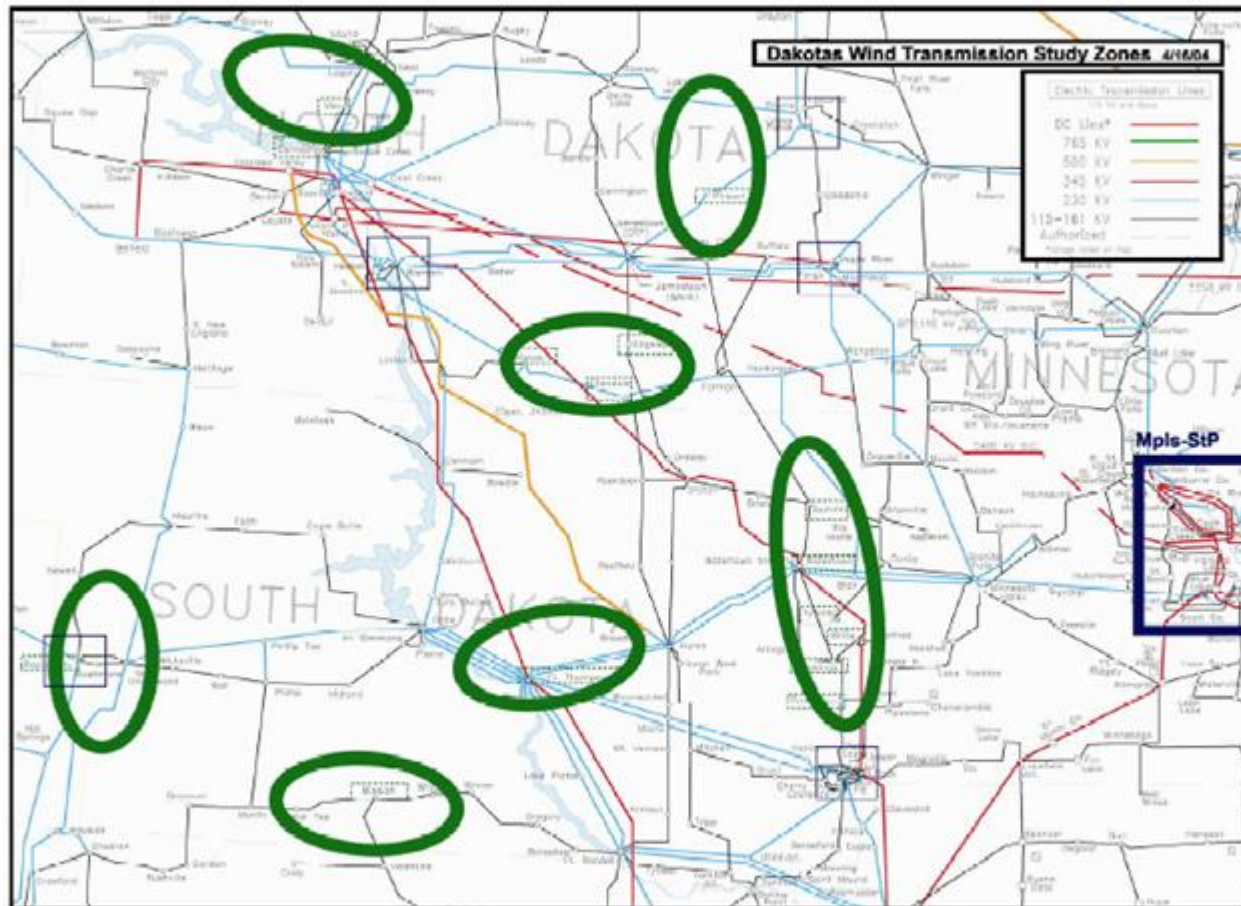
 Indian Reservation

Great Sioux Nation Wind Resource



U.S. Department of Energy
National Renewable Energy Laboratory

WAPA / WIND INTEGRATION STUDY AREA

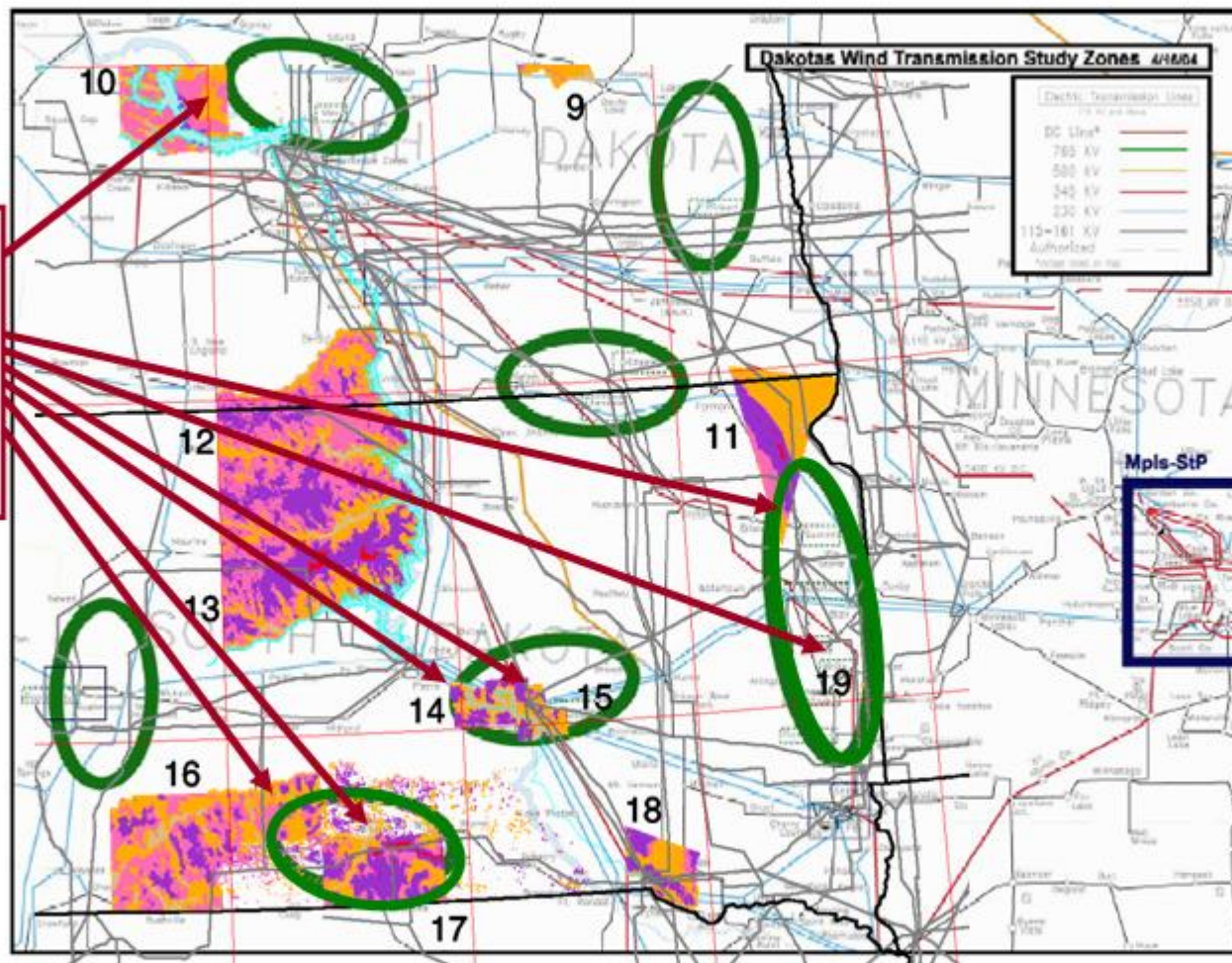


<http://www.wapa.gov/ugp/study/DakotasWind/Zone%20Map.pdf>



WAPA / WIND INTEGRATION STUDY AREA

Includes Several Reservation Interconnection Sites



<http://www.wapa.gov/ugp/study/DakotasWind/Zone%20Map.pdf>



Rosebud Sioux & Intertribal COUP

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5. Model Integrated Resource Plan

- Developing model Integrated Resource Plans (IRP)
- Prospective consultants to develop the tribal IRP
- Planned Workshop on Tribal IRP preparation and application.

More to come ...

Rosebud Sioux & Intertribal COUP

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6. Energy Efficient Housing Design

Environmental Design Partners scoping work and deliverables in the model housing design concept requested. Contract modified to include:

- Energy efficient design
- Ecological design features
- Renewable energy applications and non-toxic green building materials.
- Team include experts in the above component areas of housing design as subcontractors
- Two week-long housing design charrettes held in ND and SD

Energy Efficient Housing Design Charrettes

- Present information on low energy housing design and the charrette process to the relevant stakeholders
- Gain initial public input on the important house design issues, how to deal with these issues, performance goals, and ideas for site planning.

Goal:

Develop one preliminary site planning concept for each reservation housing authority based on consensus view of site planning principles for use of model housing concept

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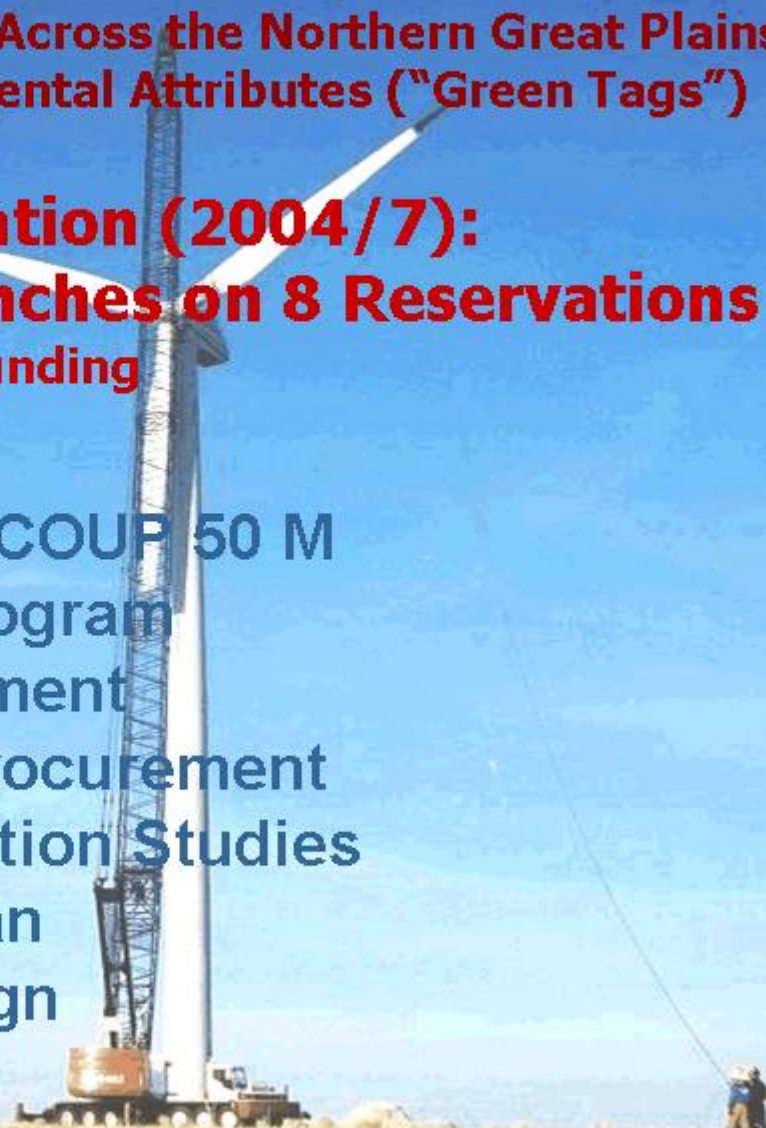
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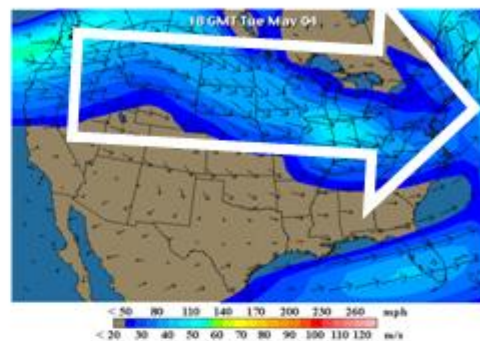
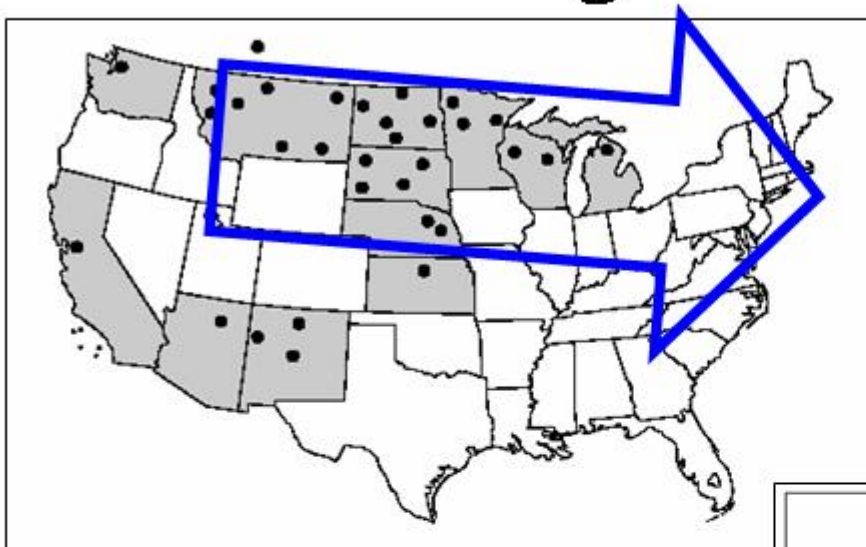
7. Capacity Building

- Primary Intertribal COUP management provided by the COUP Officers and approved by the Executive Council.
- The work includes preparation and review of the COUP documents, plans, consultant contracts, and work program development for the IWPP.
- COUP Youth Intern position has been developed to include youth project planning and administrative assistance.
- Training needs in renewable energy and the electric utility industry for COUP leadership have been identified with a priority on wind energy development issues, practices to enable broader participation in project planning and management. Participation in WEATS/AWEA conferences
 - Wind Installation Training Program
 - Tribal College Wind Related Curriculum



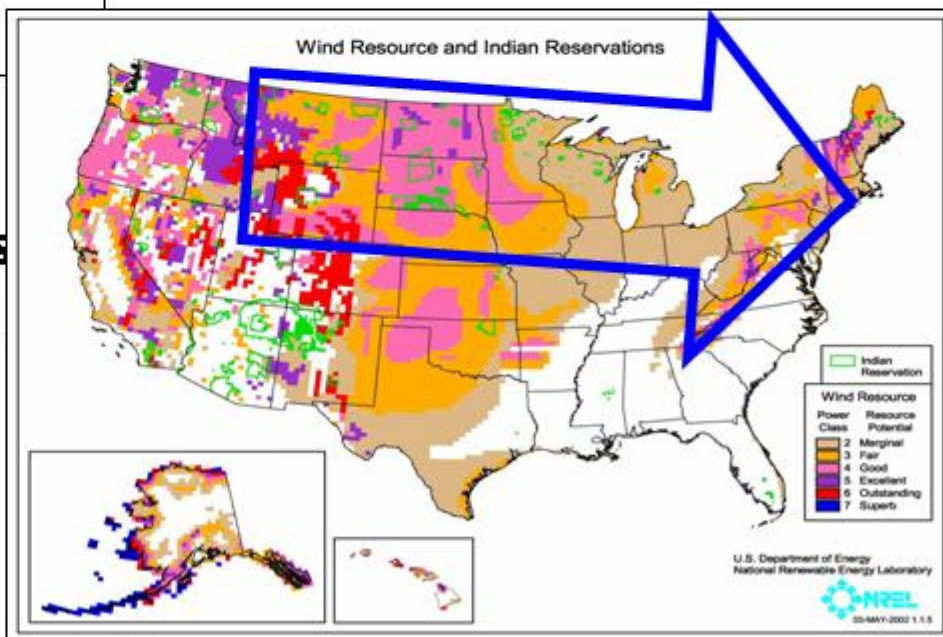
Intertribal COUP Tribes Participate in WEATS and AWEA Conferences

Tribal Colleges and Wind Resources



Prevailing Windshed

- **Climate/Natural Resource monitoring training/projects**
- **Meteorological Data Centers**
- **Wind Development Training courses for Reservation job creation and employment**
- **Wind Forecasting along the Windshed for value-add firm power sales into the market**



ENERGY POLICY ACT OF 2005

SEC. 2604. LEASES, BUSINESS AGREEMENTS, AND RIGHTS-OF-WAY INVOLVING ENERGY DEVELOPMENT OR TRANSMISSION.

Allows Intertribal Wind Company to serve as a 'tribal energy resource development organization'

Allows Tribes to develop Tribal energy resource agreements for renewable energy projects

SEC. 1303. *Clean Renewable Energy Bonds (“CREBs”)*. A new category of bonds are authorized for facilities qualifying for tax credit under Section 45. Qualified issuers include governmental bodies (including Indian tribal governments) and mutual or cooperative electric companies.

MILESTONES of ENERGY ACT OF 2005

90 days after enactment (Nov. 7, 2005):

DOI Study on Renewable Energy on Federal Lands: DOI shall contract with NAS for a study on the potential for developing renewable energy on federal lands. No later than 2 years, submit to Congress study results. §1833

DOI Report on Potential Hydropower Facilities: Submit to Congress a report describing the status of potential hydropower facilities included in studies undertaken by the Secretary for projects that have not been completed or authorized for construction. §1840

120 days after enactment (Dec. 6, 2005):

DOE Report on Solar and Wind Technologies: Submit report to Congress containing detailed summaries of the roadmaps prepared under subsections (a)(1) and (b)(1) of Title 8, descriptions of the Secretary's progress in establishing projects and programs required under this section, and recommendations for promoting the availability of advanced solar and wind energy technologies for the production of hydrogen. §812

MILESTONES of ENERGY ACT OF 2005

180 days after enactment (Feb. 6, 2006):

DOE Assessment of Renewable Energy Resources: Review available assessments of U.S. renewable energy sources, undertake new assessments if necessary. (annually thereafter) §201

1 year after enactment (Aug. 8, 2006):

DOE Assessment of Renewable Energy Resources: Report on available renewable energy resources in the U.S. (annually thereafter) §201

DOI Report on Insular Areas: Submit to Congress updated plans for each insular area required by this section. §251

DOE Wind Energy Feasibility Report: The Secretary of Energy with the Secretary of the Army shall submit a report to Congress that describes the results of a study of the cost and feasibility of developing a demonstration project that uses wind energy generated by Indian tribes and hydropower generated by the Army Corps of Engineers on the Missouri River. §503

MILESTONES of ENERGY ACT OF 2005

18 months after enactment (Feb. 8, 2007):

DOE Report on Status of Federal Purchasing Requirement: Not later than April 15, 2007, provide report to Congress on the progress of the federal government in meeting the renewable energy consumption goals of this section. (every 2 years thereafter) §203

DOE Concentrating Solar Power Report: The Secretary submit a report with the 2008 budget request assessing the potential impact of technology used to concentrate solar power for electricity. §933

DOI, DOE and Army Study/Report on Increased Hydroelectric Generation at Existing Federal Facilities: Conduct a study and report to Congress on the potential for increasing electric power production capability at existing federal hydro facilities. §1834



NATIVE RENEWABLES ENERGY SUMMIT

SOLUTIONS FOR
TRIBES & CITIES

NATIVE RENEWABLES WILL REVITALIZE
NATIVE COMMUNITIES AND OFFER CITIES
CLEAN ELECTRICITY TO MITIGATE AIR
POLLUTION & CLIMATE CHANGE.

PRESENTATIONS BY ORDER:

- ▶ WENONA LADUKE, HONOR THE EARTH
- ▶ TOM GOLDTOOTH, IEN
- ▶ BOB GOUGH, INTERTRIBAL COUP
- ▶ TOM BOUCHER, NATIVE ENERGY, LLC
- ▶ SUSAN ODE, ICLEI
- ▶ LANCE MORGAN, HO CHUNG INC.
- ▶ TEN HALL, THREE AFFILIATED TRIBES

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