# Wind Energy Development in Region 8 Draft 12/19/07

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#### Wind Energy Development in Region 8

EPA Region 8 supports a sound national energy policy that encourages a clean and diverse portfolio of domestic energy supplies. Renewable energy can help provide for our future needs by harnessing abundant, naturally occurring sources of energy, such as the sun, the wind, geothermal heat, and biomass. Renewable and alternative energy supplies not only help diversity our energy portfolio; they do so with few adverse environmental impacts.

Region 8 has significant potential for wind energy development. States and tribes in this Region are actively engaged in increasing wind energy projects in their areas. In an ongoing effort to accelerate and streamline the development of wind energy resources, and to ensure that human health and the environment are protected as wind energy production continues to increase, EPA Region 8 has adopted this document regarding wind energy development projects. In 2004, Region 8 adopted a regional energy strategy. This strategy sets forth a vision for 2010, which calls for increased energy efficiency and renewable energy as one of four key regional energy goals. Region 8's energy strategy states, "[t]he challenge is to identify steps that EPA can take in the near and mid-term to accelerate and streamline the development of this and other clean, renewable energy resources." Region 8's regional energy strategy may be found at http://www.epa.gov/region8/R8EnergyStrategyFinalDraftv3.30.04NoMaps.pdf.

#### 1.0 INTRODUCTION

This document provides information on environmental issues, concerns and approaches to wind energy production in Region 8 so that states, tribes, local governments and private parties can more effectively plan and implement their respective wind energy goals. This guidance also identifies federal laws that might apply to wind energy development projects and provides information on federal, state and tribal environmental programs and resources regarding wind energy.

State environmental agencies in Region 8 are authorized by EPA to implement many of the federal environmental programs. Where Region 8 has not approved a tribe to implement a federal environmental program, EPA implements our program in Indian country. States and tribes may have state or tribal requirements in addition to federal environmental requirements. EPA works in partnership with state and tribal environmental agencies and can assist in answering questions about the applicability of environmental requirements to individual facilities.

#### **DISCLAIMERS:**

This document provides guidance to assist the regulated community and the public in understanding wind energy facility obligations under environmental laws. The document

is not a substitute for regulations, nor is it a regulation. It cannot impose legally binding requirements on EPA, states, tribes, or the regulated community. The reader must refer to federal, state and/or tribal laws and regulations for a complete understanding of all legal requirements. This document does not represent final agency action and can be updated in the future. This document does not limit the otherwise lawful prerogatives of regulating agencies. Agencies may act at variance with this guidance based on facility-specific circumstances. The information in this document is current as of its publication date.

## 2.0 POTENTIAL FOR WIND ENERGY DEVELOPMENT IN REGION 8

Wind is widely recognized as a rapidly growing energy source. The U.S. Department of Energy (DOE) has established a goal of meeting six percent of America's energy demand with wind power by 2020.<sup>1</sup> This goal is consistent with wind energy's current rate of domestic growth.<sup>2</sup> Our region can play an important role in meeting this national goal for wind energy development.

Undeveloped wind energy resources in every state and most Indian Country lands within Region 8 have the potential to meet a significant portion of regional and national electrical needs.<sup>3</sup> The Bureau of Land Management (BLM) estimates that 453 megawatts (MW) of wind energy will be developed on as many as 13 million acres of public land (including BLM, National Forest System, and state lands) within the Region by 2025.<sup>4</sup> In addition, the National Renewable Energy Laboratory, a DOE laboratory in Golden, Colorado, estimates there are more than 9.5 million acres of available windy land on federally recognized Indian reservations in Region 8, capable of producing more than 193 gigawatts (GW) of wind power.<sup>5</sup>

<sup>1 &</sup>quot;Wind Powering America – Clean Energy for the 21<sup>st</sup> Century," U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy (September 2004).

<sup>3</sup> EPA Region VIII Energy Strategy, p. 26 (2004).

<sup>4 &</sup>quot;Green Power Network: Green Pricing: Utility Programs by State," DOE, Office of Energy Efficiency and Renewable Energy (October 2005).

<sup>5</sup> Taylor, Roger, Tribal Energy Program, National Renewable Energy Laboratory, email communication, January 9, 2006.

#### 3.0 BENEFITS OF WIND ENERGY

Wind energy offers many important benefits for public health, the environment and the economy, including significant reductions in energy-related pollution and water consumption.

The operation of wind facilities in lieu of more conventional power facilities can lead to significant improvements in air quality. Every megawatt-hour of energy produced by wind instead of coal, for example, results in approximately 60,959 fewer pounds of carbon dioxide (CO<sub>2</sub>), 61 fewer pounds of carbon monoxide (CO), and 134 fewer pounds of nitrogen oxide (NO<sub>X</sub>), 759 fewer pounds of sulfur dioxide (SO<sub>2</sub>), and 804 fewer pounds of particulate matter (PM) emitted into the atmosphere. Associated benefits to public health include decreased occurrence of debilitating illnesses and the avoidance of pollution-related reduction in life-spans.

Wind generation projects use virtually no water in the production of energy; a notable benefit in the arid and semi-arid West. Nonrenewable energy technologies such as coal and nuclear power use water as a coolant in the condensing phase of the thermodynamic cycle. For example, conventional electricity from coal requires approximately 25 gallons of water per kilowatt hour generated, and nuclear power requires nearly 3 times that amount, primarily for use as cooling water. While nuclear reactors produce highly toxic, radioactive solid waste that persists in the environment for thousands of years and must be managed and regulated, wind turbines produce no such waste.

Utilities that significantly reduce pollutant emissions by displacing fossil fuel-based energy production with wind energy could potentially face reduced regulatory pressures and associated compliance costs. The increased use of wind energy in lieu of fossil fuels will reduce emissions of PM, CO,  $NO_X$ ,  $SO_2$ , and toxic air pollutants (e.g., mercury), as well as greenhouse gases (e.g.,  $CO_2$ ). Additionally, by reducing  $NO_X$  and hydrocarbon emissions, increased use of wind energy can reduce the production of ground level ozone ( $O_3$ ). Power companies may also decrease the costs of controlling greenhouse gases (e.g., methane and  $CO_2$ ) to achieve voluntary emissions reductions and/or meet any future air quality regulations.

Energy production from wind can also provide economic benefits. One example is job and business creation, largely aiding local economies. Several studies have revealed that wind facilities produce more jobs per dollar invested or per kilowatt-hour generated

<sup>&</sup>lt;sup>6</sup> Extrapolated from data provided in Natural Gas and the Environment, the Natural Gas Supply Association, 2004. http://www.naturalgas.org/environment/naturalgas.asp

<sup>&</sup>lt;sup>7</sup> "Estimating Freshwater Needs to Meet 2025 Electricity Generating Capacity Forecasts;" Jeffrey Hoffmann, Sarah Forbes, and Thomas Feeley; U.S. Department of Energy/National Energy Technology Laboratory; June 2004.

http://www.netl.doe.gov/coal/E&WR/pubs/Estimating Freshwater Needs to 2025.pdf

than most conventional resource options.<sup>8</sup> The BLM's proposed Wind Energy Development Program (WEDP) covering eleven western states is estimated to create new jobs as well as increased income, gross state product, sales tax, and income tax in each state during both construction and operation.<sup>9</sup>

In addition, where wind energy development occurs on private land, there may be opportunities for landowners and wind energy developers to collaborate to their mutual advantage. Local communities may also benefit from property taxes paid on the purchases of real estate by wind energy developers. In the case of wind projects built on federal lands, while local property taxes may not accrue, the developers would obtain a lease from the federal government and provide annual rental payments to the U.S. Treasury.

#### 4.0 POTENTIAL IMPACTS OF WIND ENERGY PROJECTS

Potential adverse environmental impacts could occur during any phase of wind energy development (i.e. construction, operation, and decommissioning) if effective mitigation is not implemented. The nature and magnitude of impacts would vary depending upon the phase, size, scope and location of the project. A variety of site-specific factors, including watershed, habitat, presence of threatened and endangered species, and presence of cultural resources, may need to be considered.

Potential direct impacts from wind energy development projects could include water quality degradation, air quality degradation, release of hazardous materials or wastes, alteration of wildlife habitat, and destruction of cultural resources.

#### <u>4.1 WATER</u>

Water quality impacts from wind projects can occur to streams, lakes, rivers, wetlands and ground water sources on or near the project site. For wind projects, the main impacts occur during the construction and decommissioning phases from land disturbance and equipment usage. The primary impacts to water resources caused by large wind developments may include:

 Disturbance, erosion and/or compaction of soils that leads to increased turbidity, salinity and sedimentation of surface waters;

<sup>8</sup> National Wind Coordinating Committee, "The Benefits of Wind Energy," Wind Energy Issue Brief #1, January 1997. <a href="http://www.nationalwind.org/publications/wes/ibrief01.htm">http://www.nationalwind.org/publications/wes/ibrief01.htm</a>

<sup>&</sup>lt;sup>9</sup> The eleven states covered are: Montana, Wyoming, Colorado, Utah, New Mexico, Arizona, Nevada, California, Oregon, Washington, and Idaho.

- Alteration of surface drainages that could impact existing water bodies and wetlands;
- Removal of vegetation which could increase sedimentation to surface waters;
- Alteration and/or destruction of wetlands and surface water bodies if construction occurs within their boundaries;
- Contamination of surface or ground waters from hazardous materials and non-hazardous wastes;
- Alteration of groundwater quality and/or quantity; and
- Disturbance to aquatic plants and animals.

#### 4.2 AIR

Although typically small, the principal adverse air quality impacts associated with wind energy facilities are caused during construction and decommissioning activities. These impacts are similar to those caused by other large construction projects and could cause a temporary increase in air pollutant levels in the local project area. These emissions could come from construction equipment and vehicles, windblown soil, concrete batch plants, transfer of materials, and potentially pile driving or blasting activities (in rocky areas).

#### 4.3 HAZARDOUS MATERIALS

Environmental impacts from a large land-based wind project can occur due to improper use, storage and disposal of toxic and hazardous materials at the site during construction, operation and decommissioning of the facility. Hazardous materials released to the environment can also contaminate vegetation and soil and impact the health of wildlife and humans.

Some of the hazardous or potentially hazardous materials used during operation of a wind facility may include: diesel fuel, gasoline, propane, lubricating oils and grease, hydraulic fluids, antifreeze, batteries, cleaning solvents, paints, and dielectric fluids.

#### 4.4 WILDLIFE

Large wind energy projects in undeveloped areas may pose a threat to wildlife from the removal or disturbance of habitat caused by construction activities. In addition, if the facilities are built in or near bird or bat feeding areas or migration corridors, collisions between birds or bats and the wind turbines or distribution lines may occur. The conditions that present a higher risk of bat or avian mortality are continuing to be investigated, such as weather and visibility conditions, configuration of turbines, availability of food sources in the project area, and possible elements of project design that may increase the risk to birds or bats.

The Fish and Wildlife Service has issued "Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines" which can be found, along with other information on wildlife and wind energy at:

http://www.blm.gov/nhp/what/lands/realty/FWS\_wind\_turbine\_guidance\_7\_03.pdf.

The American Bird Conservancy and the American Wind Energy Association cosponsored a comprehensive two-day workshop on wind energy, birds and bats in Washington, D.C. in May, 2004, called "Wind Energy and Birds/Bats Workshop: Understanding and Resolving Bird and Bat Impacts." The proceedings, published in September 2004, can be found at

http://www.awea.org/pubs/documents/WEBBProceedings9.14.04[Final].pdf

See also British Wind Energy Association, English Nature, RSPB, World Wildlife Fund - UK, "Wind Farm Development and Nature Conservation: a Guidance Document for Nature Conservation Organisations and Developers When Consulting over Wind Farm Proposals in England," March 2001. <a href="http://www.bwea.com/pdf/wfd.pdf">http://www.bwea.com/pdf/wfd.pdf</a>.

#### 4.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

It is possible that cultural and/or paleontological resources could be damaged or affected during the construction and operation of a wind project if the area is not properly inventoried to identify resources present. The potential also exists that cultural and/or paleontological resources may be disturbed or damaged during surveying and testing of a proposed project site. Unauthorized collection of fossils is perhaps the most significant threat to paleontological resources.

#### 5.0 WHAT LAWS APPLY TO WIND ENERGY PROJECTS?

This section lists the major federal environmental laws that may apply to the construction and operation of a wind energy facility. It also includes links to tribal and state regulatory information. The section is divided into general impact categories. The citations are those of general statutory authority. Under such statutory authority, the lead federal agency may have promulgated implementing regulations that set forth the detailed procedures for permitting and compliance.

<u>5.1</u> WATER – Water Bodies, wastewater, floodplains, wetlands, groundwater and drinking water

Clean Water Act (33 USC 1251 et seq.)
Safe Drinking Water Act (42 USC 300(f) et seq.)
Executive Order 11990, "Protection of Wetlands," May 24, 1977
Executive Order 11988, "Floodplain Management," May 21, 1977

The principal federal law that regulates impacts to water quality from a wind development project is the Clean Water Act. The Safe Drinking Water Act may also apply, depending on how potable water is supplied to the site, and on the management of domestic wastewater at the site.

Where EPA has not approved a tribe to implement the Clean Water Act or Safe Drinking Water Act programs in Region 8, EPA implements the programs in Indian country. For a list of states that have authority to administer their own National Pollutant Discharge Elimination System (NPDES) programs and issue permits for construction-related stormwater releases see: <a href="http://cfpub.epa.gov/npdes/statestats.cfm">http://cfpub.epa.gov/npdes/statestats.cfm</a>. For information on a specific state's construction stormwater permitting program, see: <a href="http://cfpub.epa.gov/npdes/linkresult.cfm?program\_id=6&link\_category=2&view=link">http://cfpub.epa.gov/npdes/linkresult.cfm?program\_id=6&link\_category=2&view=link</a>.

Please refer to Region 8's water website for additional information: http://www.epa.gov/region8/water/

#### 5.2 AIR QUALITY

#### Clean Air Act (42 USC 7401 et seq.)

Specific requirements of the Clean Air Act (CAA) apply limits to both mobile and stationary sources of air pollution.

Resources for identifying and contacting both state and local permitting authorities can be found at <a href="http://www.cleanairworld.org/scripts/stappa.asp">http://www.cleanairworld.org/scripts/stappa.asp</a>. This is the website for the State and Territorial Air Pollution Program Administrators/Association of Local Air Pollution Control Officials (STAPPA/ALAPCO). These state and local air permitting agencies can provide information regarding air pollution control requirements (if any) for a particular activity.

Information on the growing numbers of Tribal air programs can be found at <a href="http://www.epa.gov/air/Tribal/">http://www.epa.gov/air/Tribal/</a> and <a href="http://www.epa.gov/air/Tribal/tip2.html">http://www.epa.gov/air/Tribal/tip2.html</a> along with many relevant resources for Tribal environmental professionals. EPA's American Indian Environmental Office (AIEO) offers additional resources at <a href="http://www.epa.gov/indian/">http://www.epa.gov/indian/</a>.

#### 5.3 HAZARDOUS MATERIALS, HAZARDOUS WASTE AND SOLID WASTE

Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (42 USC 6901 et seq.) and the Hazardous Solid Waste Amendments of 1984

Emergency Planning and Community Right-to-Know Act of 1986 (42 USC 11001 et seq.)

Toxic Substances Control Act (15 USC 2601 et seq.)
Oil Pollution Control Act (33 USC 2701 et seq.)

#### Pollution Prevention Act (42 USC 13101 et seq.)

All facilities that generate hazardous waste must keep records of the waste, including information on the amount of each type of waste generated, the licensed hauler that transported it offsite and the waste facility that accepted it for disposal.

If a facility's onsite waste is defined as hazardous under the Resource Conservation and Recovery Act (RCRA), the facility needs to create and maintain contingency plans and emergency procedures to minimize the potential threat to human health or the environment in case the waste is released to the air, surface water, groundwater or soils. For more information, please see <a href="http://www.epa.gov/region8/land\_waste/rcra/index.html">http://www.epa.gov/region8/land\_waste/rcra/index.html</a>.

A resource for questions on hazardous wastes is the EPA RCRA call center, which can be reached at 800-424-9346.

Another area of waste regulation that may impact wind developments is the handling of used oil. Used oil generated at wind developments can include such materials as lubricants, hydraulic fluids and engine oil as well as transformer cooling oil. For more information, please see: "Managing Used Oil: Advice for Small Businesses" at: <a href="http://www.epa.gov/epaoswer/hazwaste/usedoil/usedoil.htm">http://www.epa.gov/epaoswer/hazwaste/usedoil/usedoil.htm</a>.

#### 5.4 WILDLIFE PROTECTION

### Endangered Species Act (16 USC 1531 et seq.) Migratory Bird Treaty Act (16 USC 703)

Protection of wildlife is provided under various federal laws such as the Endangered Species Act and the Migratory Bird Treaty Act of 1918. In addition, states and tribes may have regulations that protect animal species of concern.

#### 5.6 CULTURAL RESOURCE PROTECTION

National Historic Preservation Act (16 USC 470 et seq.)
Archaeological Resources Preservation Act (16 USC 470 et seq.)
Native American Graves Protection and Repatriation Act (25 USC 3001 et seq.)
American Indian Religious Freedom Act (42 USC 1996)

The principal federal laws governing protection of cultural resources are the National Historic Preservation Act (NHPA), the Archaeological Resources Protection Act (ARPA), the Native American Graves Protection and Repatriation Act (NAGPRA), and the American Indian Religious Freedom Act of 1978 (AIRFA).

The NHPA regulates the preservation of cultural resources with regard to federal undertakings, including for projects that receive federal permits or funding. It requires

that land be inventoried for cultural resources, establishes a process through which a project is evaluated for its impact on cultural resources, and addresses methods for mitigating impacts. It also establishes a process for consultation about cultural resources between the United States government and Native American Tribes.

The ARPA regulates excavations of archaeological resources on federal and Native American lands, and the AIRFA protects the right of Native Americans to have access to sacred places.

#### 5.7 OTHER LAWS

#### **National Environmental Policy Act**

If a wind energy project involves a major federal action that significantly affects the quality of the environment, then the project and associated actions, such as construction of access roads or transmission lines, may be subject to the National Environmental Policy Act of 1969, 42 U.S.C. 4321 et seq. (NEPA). NEPA requires federal agencies to incorporate environmental considerations into their planning and decision-making and to prepare a detailed statement assessing the environmental impact of activities and alternatives that significantly affect the environment.

NEPA guidance and EIS instruction can be found at http://www.epa.gov/region8/compliance/nepa/nepalink.html.

See also U.S. Council on Environmental Quality, Executive Office of the President, NEPA documents and information from the CEQ web pages, including:

- 1. Memorandum to Agencies, "40 Most Asked Questions about NEPA," 1981. http://ceq.eh.doe.gov/nepa/regs/40/40P1.HTM
- 2. CEQ NEPA Guidance: http://ceq.eh.doe.gov/nepa/regs/guidance.html
- 3. "Considering Cumulative Effects under the National Environmental Policy Act," January 1997. <a href="http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm">http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm</a>
- 4. "Environmental Justice Guidance under the National Environmental Policy Act" December 10, 1997. <a href="http://ceq.eh.doe.gov/nepa/regs/ej/justice.pdf">http://ceq.eh.doe.gov/nepa/regs/ej/justice.pdf</a>.
- "NEPAnet CEQ Task Force" Overall information on NEPA, including the statute, executive orders, guidance and agency contact information: <a href="http://ceq.eh.doe.gov/nepa/nepanet.htm">http://ceq.eh.doe.gov/nepa/nepanet.htm</a>

### 6.0 EPA POLICIES AND PROGRAMS PROMOTING WIND ENERGY

EPA recognizes that increased use of energy efficiency and renewable energy technologies nationwide could have a substantial positive impact on air quality. As a result, the Agency has created a number of policies and programs to promote the development of these technologies. One such policy allows states to receive "credit" from EPA for clean energy practices in their air quality improvement plans (i.e., SIPs). Key goals of the policy are to encourage and reward greater application of renewable energy and energy efficiency measures and to help incorporate the resulting emission reductions into the air quality planning process.

EPA also has a program by which environmental projects, including wind energy development projects, may be pursued (e.g., partially funded) through enforcement settlements. Such projects are referred to as Supplemental Environmental Projects or SEPs. Federal SEPs are covered by EPA's SEP Policy, which can be found online at <a href="http://cfpub.epa.gov/compliance/resources/policies/civil/seps/">http://cfpub.epa.gov/compliance/resources/policies/civil/seps/</a>. In January 2005, EPA released "A Toolkit for States: Using Supplemental Environmental Projects to Promote Energy Efficiency and Renewable Energy." This document provides information and resources to state and local governments for pursuing energy efficiency or renewable energy projects through non-federal enforcement settlements. It is available online at the website above and at <a href="http://www.epa.gov/cleanenergy/stateandlocal/">http://www.epa.gov/cleanenergy/stateandlocal/</a>.

EPA's Green Power Partnership provides assistance and recognition to organizations that demonstrate environmental leadership by choosing green power. Information about this program can be found at <a href="http://www.epa.gov/greenpower/">http://www.epa.gov/greenpower/</a>.

## 7.0 OTHER FEDERAL RESOURCES PROMOTING WIND ENERGY

Federal agencies, including DOE and the Department of the Interior have developed numerous resources to assist in the development of wind energy. The list below includes some of the many federal online resources which may be helpful in developing wind energy.

#### U.S. DEPARTMENT OF ENERGY

U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Tribal Energy Program: <a href="http://www.eere.energy.gov/Tribalenergy/">http://www.eere.energy.gov/Tribalenergy/</a>

U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Wind and Hydropower Technologies Program, Wind Powering America Program: <a href="http://www.eere.energy.gov/windandhydro/windpoweringamerica/">http://www.eere.energy.gov/windandhydro/windpoweringamerica/</a>

U.S. Department of Energy, National Renewable Energy Laboratory, National Wind Technology Center: <a href="https://www.nrel.gov/wind/">www.nrel.gov/wind/</a>

#### BUREAU OF LAND MANAGEMENT

U.S. Department of the Interior, Bureau of Land Management, Lands and Realty Program, Wind Energy web page: http://www.blm.gov/nhp/what/lands/realty/wind\_energy.htm

"Wind Energy Guide," Wind Energy Development Programmatic EIS website: <a href="http://windeis.anl.gov/guide/index.cfm">http://windeis.anl.gov/guide/index.cfm</a>

#### U.S. FISH AND WILDLIFE

http://www.fws.gov/habitatconservation/wind.htm

General information about migratory birds, threatened and endangered species and links to local Fish and Wildlife Service offices that should be consulted prior to selecting a site for a wind energy facility: <a href="http://www.fws.gov">http://www.fws.gov</a>.

Fish and Wildlife Service, "Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines" which can be found, along with other information on wildlife and wind energy at: http://www.fws.gov/r9dhcbfa/windenergy.htm.

#### 8.0 STATE AND TRIBAL RESOURCES

#### **Colorado Contacts**

#### State Energy Program

The Governor's Energy Office administers the State Energy Program in Colorado. Governor's Energy Office 225 E. 16th Avenue Suite 650

Denver, CO 80203 Phone: 303-866-2100 Fax: 303-866-2930

#### **State Energy Office Director**

Tom Plant

Executive Director Phone: 303-866-2401

Email: Tom.Plant@state.co.us

#### **Montana Contacts**

#### **State Energy Program**

The Montana Department of Environmental Quality administers the State Energy Program in Montana.

Montana Department of Environmental Quality Bureau of Air, Energy and Pollution Prevention 1100 North Last Chance Gulch

P.O. Box 200901

Helena, MT 59620-0901 Phone: 406-841-5240 Fax: 406-841-5222

#### **State Energy Office Director**

Lou Moore

State Energy Office Director

Phone: 406-841-5280 Email: Imoore@mt.gov

#### **North Dakota Contacts**

#### **State Energy Program**

The North Dakota Division of Community Services administers the State Energy Program in North Dakota.

North Dakota Division of Community Services

Department of Commerce

1600 East Century Avenue, Suite 2

P.O. Box 2057

Bismarck, ND 58502-2057 Phone: 701-328-5300

Fax: 701-328-5320

#### **State Energy Office Director**

Paul T. Govig Division Director

Phone: 701-328-4137 Email: pgovig@state.nd.us

#### **South Dakota Contacts**

#### **State Energy Program**

The Energy Management Office administers the State Energy Program in South Dakota.

Energy Management Office Bureau of Administration 523 E. Capitol Avenue Pierre, SD 57501-3182

Phone: 605-773-3899 Fax: 605-773-5980

#### **State Energy Office Director**

Michele Farris, P.E. State Energy Manager Phone: 605-773-3899

Email: michele.farris@state.sd.us

#### **Utah Contacts**

#### **State Energy Program**

The Utah Geological Survey administers the State Energy Program in Utah.

#### **Utah Geological Survey**

P.O. Box 146100 1594 West North Temple, Suite 3110 Salt Lake City, UT 84114 Phone: 801-538-5413

Website:

http://ugs.utah.gov/sep/wind/index.htm

#### **Wyoming Contacts**

#### **Wyoming Infrastructure Office**

(307) 635-3573 200 E.17th, Suite B Cheyenne, WY 82001 info@wyia.org.

#### **State Energy Office Director**

Tom Fuller Manager, State Energy Programs

Phone: 307-777-2804

Email: tom.fuller@wybusiness.org

#### **Tribal Contacts**

Internet links and other contact information for Tribes located in Region 8 can be found at the EPA tribal portal: <a href="http://www.epa.gov/tribalportal/">http://www.epa.gov/tribalportal/</a>

Intertribal Council on Utility Policy – http://www.IntertribalCOUP.org

Native Wind – http://nativewind.org

Council of Energy Resource Tribes - http://www.certredearth.com

For information regarding Region 8's tribal program, please see: <a href="http://www.epa.gov/region8/tribes/">http://www.epa.gov/region8/tribes/</a>

#### 9.0 REFERENCES

National Center for Manufacturing Science, Construction Industry Compliance Assistance internet resources: <a href="http://www.cicacenter.org/air.html">http://www.cicacenter.org/air.html</a>.

- U.S. Department of Energy, "Environmental Assessment, Ponnequin Wind Energy Project, Weld County, Colorado," August 1997.
- U.S. Department of Energy, Western Area Power Administration and FPL Energy, North Dakota Wind, LLC, "Environmental Assessment Wind Energy Center Edgeley/Kulm Project, North Dakota" DOE/EA-1465, April 2003. http://www.eh.doe.gov/nepa/ea/ea/ea1465/TOCindex.html
- U.S. Department of Energy, "Pre-Decisional Draft Environmental Assessment, Expanded Ponnequin Wind Energy Project, Weld County, Colorado," October 1998.
- U.S. Department of the Interior, Bureau of Land Management, information from the BLM web pages, including:
  - 1. Bureau of Land Management and Argonne National Laboratory, "Draft Programmatic Environmental Impact Statement on Wind Energy Development on

- BLM-Administered Lands in the Western United States," September 2004. <a href="http://www.windeis.anl.gov/">http://www.windeis.anl.gov/</a>.
- 2. BLM's Visual Resource Management web page: <a href="http://www.blm.gov/nstc/VRM/index.html">http://www.blm.gov/nstc/VRM/index.html</a>.
- 3. "Wind Energy in the San Gorgonio Pass Area," rental calculation. http://www.ca.blm.gov/palmsprings/windenergy.html#RentalCalculation.
- U.S. Department of the Interior, Bureau of Land Management and Table Mountain Wind Company, LLC, "Final Environmental Impact Statement, Table Mountain Wind Generating Facility," July 2002.
- U.S. Environmental Protection Agency, documents and information from EPA web pages and call centers, including:
  - 1. American Indian Environmental Office (AIEO): <a href="http://www.epa.gov/indian/">http://www.epa.gov/indian/</a>
  - 2. Compendium of Compliance Assistance Tools for the Construction Sector: http://www.epa.gov/compliance/resources/publications/assistance/sectors/constructmyer/myergui de.pdf
  - 3. Green Power Partnership page: http://www.epa.gov/greenpower/
  - 4. "Guidance on State Implementation Plan (SIP) Credits for Emission Reductions from Electric-sector Energy Efficiency and Renewable Energy Measures", August 2004, <a href="http://www.epa.gov/ttn/oarpg/t1/memoranda/ereseerem\_gd.pdf">http://www.epa.gov/ttn/oarpg/t1/memoranda/ereseerem\_gd.pdf</a>.
  - 5. "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," 1974, EPA 550/9-74-004.
  - "Managing Your Hazardous Waste: A Guide for Small Business," December 2001, EPA 530-K-01-005, <a href="http://www.epa.gov/epaoswer/hazwaste/sqg/sqghand.htm">http://www.epa.gov/epaoswer/hazwaste/sqg/sqghand.htm</a>.
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  - 2. The National Historic Preservation Act of 1966, as amended through 2000: <a href="http://www.cr.nps.gov/hps/laws/NHPA1966.htm">http://www.cr.nps.gov/hps/laws/NHPA1966.htm</a>.