BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY NAVITAS ENERGY, INC. FOR AN ENERGY CONVERSION FACILITY PERMIT FOR THE CONSTRUCTION OF THE WHITE WIND FARM AND ASSOCIATED COLLECTION SUBSTATION AND ELECTRIC INTERCONNECTION SYSTEM	)	**DECISION AND ORDER APPROVING STIPULATION AND GRANTING PERMIT TO CONSTRUCT THE WHITE WIND FARM AND ASSOCIATED COLLECTION SUBSTATION AND ELECTRIC INTERCONNECTION SYSTEM EL06-020**

On July 11, 2006, White Wind Farm, LLC, a wholly owned subsidiary of Navitas Energy, Inc. (Navitas) filed an application with the Public Utilities Commission (Commission) seeking an energy conversion facility permit to construct and operate the White Wind Farm. The White Wind Farm is a proposed 200 MW wind energy electricity generating facility and ancillary services located on approximately 93 acres in Sherman Township, southeast of White, South Dakota in Brookings County. The project consists of up to 103 2 MW wind turbine generators, associated electric collector lines, a collection substation and interconnection and upgrades to the WAPA White Substation.

On July 13, 2006, the Commission electronically transmitted notice of the filing and the intervention deadline of September 11, 2006, to interested individuals and entities. On September 8, 2006, the Commission received an Application for Party Status from Interstate Telecommunications Cooperative, Inc. (ITC). On September 11, 2006, the Commission received a Petition to Intervene from South Dakota Rural Electric Association (SDREA). On September 19, 2006, the Commission received a letter from the Local Review Committee requesting $2,000 to employ a consultant to assist the Local Review Committee to carry out the Local Review Committee's responsibilities. At its regularly scheduled meeting of September 26, 2006, the Commission granted the Application for Party Status, the Petition to Intervene, and the Local Review Committee's request to hire a consultant for $2,000. On October 18, 2006, the Commission received a Petition to Intervene from Sioux Valley Energy (Sioux Valley). On October 23, 2006, the Commission received a Social and Economic Impact Study from the Local Review Committee. At its regularly scheduling meeting of October 31, 2006, the Commission granted intervention to Sioux Valley. On March 19, 2007, the Commission received a letter from ITC requesting its withdrawal as a party. At its March 27, 2007, meeting, the Commission granted ITC's withdrawal as a party. On May 15, 2007, the Commission received a Settlement Stipulation entered into by Navitas, Sioux Valley and SDREA. On May 22, 2007, at its regularly scheduled meeting, the Commission voted unanimously to approve the Settlement Stipulation.

On May 29, 2007, the Commission received a Stipulation entered into by White Wind Farm, LLC, Sioux Valley, SDREA and Commission Staff. The Stipulation sets forth Findings of Fact, Conclusions of Law and Terms and Conditions and incorporated the Local Review Committee's report.

At its June 26, 2007, meeting, the Commission considered this matter. The Commission has jurisdiction over this matter pursuant to SDCL Chapter 49-41B, specifically 49-41B-1, 49-4l B-2, 49-41B-2.1, 49-41B-4, 49-41B-6, 49-41B-7, 49-41B-8, 49-41B-9, 49-41B-10, 49-41B-11, 49-41B-12, 49-41B-13, 49-41B-14, 49-41B-1 5, 49- 41B-16, 49-41B-17, 49-41B-17.1, 49-41B-19, 49-41B-20, 49-41B-21, 49-41B-22, 49-41B-24, 49-41B-26, 49-41B-33, 49-41B-35, 49-41B-36, 49-41B-38, and ARSD Chapter 20:10:22. The Commission voted to approve the Stipulation and grant Navitas' application for a permit to construct the White Wind Farm and Associated Collection Substation and Electric Interconnection System. It is therefore

ORDERED, that the Stipulation entered into by White Wind Farm, LLC, Sioux Valley, SDREA and Commission Staff shall be approved and is attached hereto, together with the Settlement Stipulation entered into by Navitas, Sioux Valley and SDREA and previously approved by the Commission; and it is

FURTHER ORDERED, that Navitas is granted a permit to construct the White Wind Farm and Associated Collection Substation and Electric Interconnection System, subject to the Findings of Fact, Conclusions of Law and Terms and Conditions listed in both Stipulations.

Dated at Pierre, South Dakota, this 2nd day of July, 2007.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically.

By: Delaine Kolbo

Date: 7/5/07

(OFFICIAL SEAL)

BY ORDER OF THE COMMISSION:

DUSTIN M. JOHNSON, Chairman

GARY HANSON, Commissioner

STEVE KOLBECK, Commissioner

RECEIVED
MAY 29 2007
SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

In the Matter of the Application by Navitas Energy, Inc. for an Energy Conversion Facility Permit for the Construction of the White Wind Farm and Associated Collection Substation and Electric Interconnection System	)))))	**STIPULATION** **EL06-020**

It is hereby stipulated and agreed by and between the White Wind Farm, LLC (Applicant), the Staff of the South Dakota Public Utilities Commission (Staff), the South Dakota Rural Electric Association (SDREA) and Sioux Valley-Southwestern Electric Cooperative, Inc. d/b/a as Sioux Valley Energy, that the following Findings of Fact and Conclusions of Law, and an appropriate Order consistent with said Findings and Conclusions may be adopted by the South Dakota Public Utilities Commission (Commission) in the above-captioned matter. In support of its Application, the Applicant does hereby offer this Stipulation, the Application filed July 11, 2006, all responses submitted by the Applicant to the Staff's data requests and the Local Review Committee Report submitted to the Commission on October 23, 2006. Staff offers no answering testimony or exhibits conditioned upon the Commission accepting the following Findings of Fact and Conclusions of Law.

FINDINGS OF FACT

1. INTRODUCTION

White Wind Farm, LLC (Applicant), a wholly-owned subsidiary of Navitas Energy, Inc., proposes to construct and operate the White Wind Farm on approximately 93 acres dispersed throughout portions of up to 25 sections of land in eastern Brookings County, South Dakota, southeast of the City of White.

The proposed Project (Project) will consist of modifying the Western Area Power Administration's (WAPA) White Substation; constructing, operating and maintaining overhead and underground electric collector lines, a new collection substation, a communications system, and an interconnection to WAPA's existing White Substation; constructing, operating and maintaining up to 103 2-MW wind turbine generators (WTGs) with a net capacity of up to 200 MW; and constructing and maintaining access roads connecting the WTGs. The original Application was for 105 WTGs, but two have been eliminated to avoid environmental impacts.

The Project proposes an interconnection with WAPA's White Substation. WAPA is a division of the U.S. Department of Energy and is required to respond to the Applicant's request for interconnection to WAPA's transmission facility and to ensure reliability of the Federal Power System. The interconnection requires a Federal action by WAPA that is subject to the National Environmental Policy Act (NEPA). The final Environmental Impact Statement (EIS) for the Project was filed with the Commission on April 6, 2007.

2. PURPOSE OF PROJECT

The purpose of this Project is to develop the identified wind resource in the Brookings County area to meet a portion of the regional demand for renewable power.

3. DESCRIPTION OF PROJECT

The Project will be comprised of four (4) primary components:

1) Up to 103 2-MW Gamesa WTGs spread out over 25 Sections of land;
2) 45 miles of 34.5 kV underground cabling linking the WTGs;
3) 9 miles of 34.5 kV above ground cabling linking the WTGs; and
4) A new substation adjacent to the White Substation.

Each WTG structure location will require construction of a turbine foundation, crane pad, and access road. The construction work area may extend 10 to 15 feet beyond the operational footprint. The layout and dimensions of a typical structure location is shown in attached Exhibit 4. Structure locations are shown in attached Exhibit 1.

The WTGs will be interconnected by communication and electrical power collection circuit facilities within the wind farm. These facilities will include a combination of underground and overhead feeder lines that will deliver wind-generated power to the Project collection substation.

Approximately 45 miles of underground collection lines and 9 miles of overhead collection lines will be constructed. The 34.5 kV overhead lines will model a standard overhead distribution line consisting of wooden poles approximately 25 to 30 feet tall and spaced approximately 150 feet apart within the road right of way (ROW) and over private land. Each underground collector will consist of three power cables each contained in an insulated jacket, a bare copper cable for grounding purposes, and a fiber optic cable. The underground collector will be buried at a depth that will not interfere with farm operations.

A new collection substation will be constructed adjacent to the existing White substation located on the northwest corner of 207th Street and 484th Avenue (Section 25, Township 111 North, Range 48 East), in the southeast corner of the Project area. The new collection substation will be constructed on private land just north of, and adjacent to, the existing White substation. The medium voltage (34.5 kV) wind farm collection grid and the wind farm fiber optic communication network will terminate at the new collection substation. The Project will include a transformer to step up the voltage of the collection grid to that of the interconnection with WAPA. Additional facilities located within the new substation include aboveground bus structures to interconnect the substation components, breakers, a building for relays, switchgear, communications and controls, and other related facilities required for delivery to the existing 345 kV bus at WAPA's White Substation.

The new collection substation will be surrounded by a high chain-link security fence and the surfaces will consist of concrete and steel foundations for the substation components and a graveled surface.

Design of the proposed Project collection substation is not finalized but the Applicant expects the Project will require a site of up to 1.1 acres. A preliminary collection substation layout is included as Figure 6 in the original Application. The Project will be designed in compliance with Federal, state and local regulations, and applicable industry standards, as well as WAPA interconnection standards. The new collection substation will then be interconnected to WAPA's White substation.

4. DEVIATIONS FROM DESCRIBED PROJECT

No deviations from the described Project as depicted in attached Exhibit 1 are anticipated. If it is necessary to change any structure locations for engineering, safety, zoning or other reasons, the Applicant shall comply with Section 2ii in its lease with landowners which allows the Applicant to change the proposed location of any of the WTGs or Project Facilities by up to fifty (50) lineal feet from its initially proposed location in connection with the initial installation of the WTGs and Project Facilities. This allows for minor deviations that may be necessary during construction. Any deviations larger than 50' shall require Commission approval.

5. ESTIMATED COST OF PROJECT

The estimated capital cost of the Project is $300 million. This cost includes planning, easement acquisition, permitting and construction as shown in the table below.

Item	Million $
Development	6
Construction:	
Civil Works	32
Switchgear	2
Collection System	11
Substation	5
Site Management	2
Total Construction	52
WTGs:	
WTG Erection	14
WTG	228
Total WTGs	242
Total	300

6. DEMAND FOR THE FACILITIES

Deregulation of the electric industry and current energy supply issues have emphasized the need for new and diverse energy sources. State and Federal policies combined with the declining costs of wind generation have made wind power more attractive to utilities seeking to diversify their generation portfolios. Wind accounts for less than 1 percent of the electricity generated in the U.S. today but installed capacity has been expanding at an average annual rate exceeding 20 percent.

Several states have implemented policies that encourage the development of wind energy projects. At least 20 states and the District of Columbia have renewable portfolio standard laws. These states include Minnesota, Iowa and Wisconsin. Minnesota now has a mandated target of 25 percent by 2025. The Federal government has provided, and continues to provide, production tax credits for wind power to encourage investment and provide some financial stability to allow projects to develop. These mandates and related agreements have led regulated utilities to increase wind power as a percentage of their generation portfolio. Typically, this need is met when unregulated wind energy developers respond to resource requests issued by utilities.

The combination of policy and market drivers is expected to create an increased demand for wind power. This is demonstrated in a number of ongoing regional transmission planning studies that cover Minnesota and South Dakota that include a substantial wind component as part of the planning criteria. These studies are all consistent in forecasting that the wind resource in the Project area (Buffalo Ridge in Minnesota and South Dakota) would be the primary source of wind power to meet regional demand:

- Midwest Independent System Operator (MISO) Northwest Exploratory Study which forecasts 500 MW of wind power in the Project area (Grivna, 2005);
- MISO Iowa/Minnesota/Wisconsin Exploratory study which forecasts the addition of 800 to 1100 MW of wind power in the Project area (Deubner, 2005);
- CapX 2020 which forecasts an additional 2400 MW of wind power in Minnesota and surrounding states (CapX, 2005);
- Buffalo Ridge Incremental Generation outlet transmission study which forecasts over 400 MW of wind power in the Project area (Gonzalez, 2005); and
- WAPA's Dakotas Wind Transmission Study which forecasts an additional 500 MW of wind energy in the Project area (Weber, 2005).

7. SITE DESCRIPTION

The Project is located on a combination of grassland and agricultural land in Sherman Township, Southeast of White, South Dakota in Brookings County. This land is used for farming and cattle grazing. The area surrounding the White substation is characterized as grassland including portions of remnant prairie. The property for the new Project Substation is currently used for agricultural purposes. Access to the substation will be created by developing a road off 207th Street in the Southeast Quarter, Section 25 of Sherman Township. The Project is located mainly within Sherman Township, Brookings County, South Dakota immediately southeast of the City of White and covers approximately 28 square miles.

8. ALTERNATIVE SITES

An initial WTGs' layout was developed by Applicant in early 2005. This initial layout was based on an optimal configuration to best capture wind energy. This layout was then adjusted to avoid environmental and socio-economic impacts. Benefits achieved by revising the layout included avoiding placement of nine WTG foundations in or very near to 100-year floodplains. One of the floodplains in question was Six Mile Creek which the USFWS has listed as potential habitat for the Topeka shiner, an endangered species. The current layout incorporates setbacks, as provided for in the Brookings County ordinances, which resulted in avoiding the placement of foundations very near to roads and homes.

The assessment of alternatives, coupled with efforts to address specific landowner issues, established the Project layout. The Applicant believes the Project represents the best alternative in terms of meeting customer, landowner, legal and regulatory concerns while minimizing impacts to the environment and existing land use.

9. ENVIRONMENTAL FACTORS AND PHYSICAL ENVIRONMENT

Applicant has provided environmental information as part of its Permit Application. The existing environment and estimates of changes and impacts to the existing environment are found in sections 7 to 15 of the Permit Application.

The proposed alignment for the Project will minimize changes and impacts to the existing environment. No significant direct, cumulative or synergistic hazards to the health and welfare of human, plant or animal communities are expected from the construction or operation of the Project.

a. **Topography.** The topography through this area is flat to rolling; elevations range from 1,900 feet above mean sea level (amsl) at the state border to approximately 1,770 to 1,780 feet amsl near the White Substation. The topographic features in this area are influenced by many ephemeral washes and small streams.

b. **Geologic Features.** The surficial geology of the corridor consists of unconsolidated glacial materials deposited during the Wisconsinan glacial advance. These materials generally consist of till intermixed with outwash deposits. The till is made up of mostly calcareous clay and silt with inclusions of rock fragments. Outwash materials consist of sands and gravels deposited by glacial melt water. Unconsolidated glacial materials are generally over 400 feet thick in the Project area.

   The bedrock geology of this area consists of the Upper Cretaceous Pierre Shale and Niobara Formation, and the Precambrian Sioux Formation. The Sioux Formation underlies most of the surficial deposits in the Project area. The Pierre Shale and the Niobara Formation underlie sediments in the northern portion of the Project area near the

White and Brookings County Substations. The Pierre Shale and Niobara Formation lie unconformably over the Sioux Quartzite in the northern portion of the Project area.

c. **Economic Deposits.** The primary economic mineral deposits in Brookings County, South Dakota, consist of sand and gravel. There are a few gravel pits present in the area but none within the Project area.

d. **Soil Type.** Soils in the Project area consist primarily of loam, silty loam, silty clay loam, clay loam, and sandy clay loam. The Project crosses 27 soil units; Buse-Barnes loams and the Vienna Buse Complex are the most common. Slopes range from nearly flat to up to 40 percent, which is characteristic of the rolling topography. Approximately 66 percent of the soils within the Project area are listed as prime farmland; approximately 7 percent of the soil is listed as prime farmland when drained (USDA 2003).

e. **Potential for Erosion and Sedimentation**. The potential for erosion is often a concern in construction projects. In general, surficial soils on flat areas are less prone to erosion than soils in sloped areas. Construction on or adjacent to steep slope areas can render soils unstable, accelerate natural erosion processes and cause slope failure.

The loamy soils in the Project area are not highly susceptible to erosion; however, care shall be taken to avoid or minimize excavation in steep slope areas. Since WTGs are generally located at higher elevations to maximize exposure to wind, excavation in steep slope areas will be limited to small sections of access roads. Where possible, access roads will be sited to avoid steep slopes. During construction best management practices (BMPs) will be implemented to ensure that drainage ways and streams are not impacted by sediment runoff from exposed soils during major precipitation events.

The South Dakota Department of Environment and Natural Resources (DENR) has issued a General Storm Water Permit for Construction Activities; an application for coverage under this permit will be needed for the Project prior to construction. One of the conditions of this permit is the development of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will be developed once more detailed information on grading is determined and will mandate BMPs to control erosion and sedimentation for areas where slopes make soil erosion a particular concern and any areas where wind erosion may be a concern. BMPs may include silt fencing, erosion control blankets, re-vegetating side slopes, temporary storm water sedimentation ponds or other methods of controlling storm water runoff, and minimizing erosion and sedimentation.

Once construction is complete the cultivated areas will be smoothed by single-pass disking. In non-cultivated areas, rough grading will be conducted to reasonably resemble preconstruction contours. Non-cultivated vegetated areas disturbed by construction will be seeded with similar vegetation as was disturbed and mulched as necessary to stabilize seeds during germination.

f. **Seismic Risks, Subsidence Potential and Slope Instability**. Seismic hazards in the study area are rated as very low. The seismic activity in South Dakota, especially in the

eastern portions of the state, is low. Two earthquakes have been recorded approximately 25 miles south of the Project in Moody County. One earthquake, registering 2.5 on the Richter Scale, occurred in November 1935. The second occurred in July 1982 and had a measured magnitude between 3.5 to 4.0.

The Project will be designed and constructed in accordance with all applicable codes and will incorporate state-of-the-art standards to address potential structural difficulties associated with seismic, subsidence or slope instability. In general, soils in the Project area are expected to provide adequate foundation for WTG structures without concern of subsidence and the Brookings County Substation is located in a flat area where slope instability will not be an issue.

g. **Geological Constraints**. There are no geological constraints to construction of the Project. Soil characteristics may change the design requirements of the WTG foundations. Soil borings have been performed at all but three WTG locations to insure that the foundation design is suitable for the physical conditions. Prior to construction, soil borings will be performed at all WTG sites not previously investigated.

h. **Hydrology**. Groundwater is found at varying depths across the Project area. Buried quaternary sand and gravel outwash deposits (referred to as the Big Sioux Aquifer) comprise the primary aquifer in the Project area. Regional groundwater flow is generally to the south and west; local groundwater flow is variable and often driven by topography. The Project area lies entirely within the Upper Big Sioux watershed of the Big Sioux River basin. Within the Project area, surface water flows generally south and west toward the Big Sioux River. Surface water resources within and adjacent to the Project area include Six Mile Creek, Deer Creek and several ephemeral stream tributaries. Six Mile Creek runs through the area just northwest of the Project area and Deer Creek runs through the area just east and south of the Project area. Six Mile Creek, Deer Creek and the majority of the ephemeral streams have generally been left in their natural, meandering condition. However, in the south central portion of the Project area (township 111N, range 48W, sections 22 and 23), ephemeral streams have been dammed, by others, to create ponds. Water resources are shown in Figure 7 of the Application.

Construction equipment will not cross streams or wetlands. Alternate access points will be identified to avoid stream and wetland crossings. If a streambed or wetland crossing is necessary, it will only occur in the winter months when the ground is frozen and the Applicant will coordinate with the appropriate agencies to obtain any necessary permits.

i. **Effect on Current Planned Water Uses**. The Project will not use either municipal or private water and therefore will have no impacts on planned water uses by communities, agriculture, recreation, fish or wildlife.

j. **Surface and Groundwater Use by Proposed Project**. The Project will not require consumptive use of or discharge to any surface water body or groundwater. However, should groundwater be encountered during foundation installation, a minimal amount of groundwater would be discharged to the surface. Appropriate permits will be obtained

for dewatering activities.

k. **Aquifer Use by Proposed Project**. The Project will not require the use of groundwater as a source of potable water supply or process water.

l. **Water Storage, Reprocessing and Cooling by Proposed Project**. No water storage or reprocessing will be required for the construction or operation of the Project.

m. **Deep Well Injection Use by Proposed Project**. No deep well injection will be required for the construction or operation of the Project.

n. **Effect on Terrestrial Ecosystems**. Detailed information resulting from biological field surveys conducted to identify and quantify the terrestrial fauna and flora potentially affected by the Project are contained in Section 10.2 of the Permit Application. Construction and operation of the Project shall have little significant adverse impact on the terrestrial biotic environment. Applicant has avoided all wetlands, including moving roads to avoid non-jurisdictional wetlands and removing WTG sites that crossed streams.

o. **Effect on Terrestrial Fauna**. The Project will not significantly disrupt wildlife in the area. The area in and around the Project is dominated by cropland habitats. Wildlife in these habitats is made up of species adapted to grassland and riparian areas such as deer, pheasant, ducks, geese, hawks, eagles and songbirds. Domesticated animals raised in the region include cattle, sheep and hogs.

   Dakota Skippers are present outside of the Project area and placement of the structures avoid Dakota Skipper habitat. There are no other endangered or protected wildlife species identified in the area that may be affected by the WTGs.

p. **Effect on Terrestrial Flora**. Impacts to vegetation in the Project will be minor. Short-term impacts (that affect vegetation for one (1) year or less) will include disturbance or removal of vegetation and soil compaction caused by preparing equipment yards and construction trailer sites, construction of foundations and installation of the WTGs. Long-term impacts will be limited to the access roads that run to each WTG, foundations and the substation site.

   The USFWS requested five WTGs' locations be altered to reduce the impact on native, unbroken sod. Balancing the needs of the Applicant, the request of the USFWS, and Brookings County setbacks, one WTG was removed and three were moved onto crop land. One WTG sits on the edge of a native prairie parcel but the access road to the WTG sits almost entirely on crop land.

   Cumulative impacts to vegetation will be minor and include the effects from farming and ranching. The primary land uses in the Project area are residential and agricultural. These practices have been changing the landscape for many years. Construction will be sequenced to limit disruption to any area at one time to reduce the impact of construction on vegetation.

Once construction is complete, the cultivated areas will be smoothed by single-pass disking. In non-cultivated areas, rough grading will be conducted to reasonably resemble preconstruction contours. Non-cultivated vegetated areas disturbed by construction will be seeded with similar vegetation as was disturbed and mulched as necessary to stabilize seeds during germination.

Areas containing suitable habitat for the western prairie fringed orchid will be surveyed prior to construction and activities will be modified to avoid any identified plants. There are no other endangered or protected plant species identified in the area that will be affected by the WTGs.

q. **Effect on Aquatic Ecosystems**. The primary potential for impact to aquatic ecosystems will be from increased sedimentation or increased total suspended solids due to soil erosion from the construction sites of the Project. In general surficial soils on flat areas are less prone to erosion than soils in sloped areas. Construction on or adjacent to steep slope areas can render soils unstable, accelerate natural erosion processes and cause slope failure.

The loamy soils in the Project area are not highly susceptible to erosion; however, care will be taken to avoid or minimize excavation in steep slope areas. Since WTGs are generally located at higher elevations to maximize exposure to wind, excavation in steep slope areas should be limited to small sections of access roads. Where possible, access roads will be sited to avoid steep slopes. During construction BMPs will be implemented to ensure that drainage ways and streams are not impacted by sediment runoff from exposed soils during major precipitation events.

The South Dakota DENR has issued a General Storm Water Permit for Construction Activities; an application for coverage under this permit will be needed for the Project prior to construction. One of the conditions of this permit is the development of a SWPPP. The SWPPP will be developed once more detailed information on grading is determined and will mandate BMPs to control erosion and sedimentation for areas where slopes make soil erosion a particular concern and any areas where wind erosion may be a concern. BMPs may include silt fencing, erosion control blankets, revegetating side slopes, temporary storm water sedimentation ponds or other methods of controlling storm water runoff and minimizing erosion and sedimentation. As described in Section 11.2 of the Application, impacts on wetlands will be minimal because WTGs will be constructed in the upland hill areas and wetlands will be avoided to the extent possible when positioning access roads and collection feeder lines.

Direct impacts on the Topeka shiner and redbelly dace will be unlikely because WTGs will be placed in upland areas. However, to minimize indirect impacts due to stream crossings or increased sedimentation from construction, Applicant will coordinate with WAPA and the United States Fish and Wildlife Service (USFWS) for guidance in developing BMP's.

In order to avoid impacts to aquatic ecosystems, Applicant will avoid construction within 100 feet of streams and wetlands between May 15th and August 31st.

r. **Water Quality**. Construction of the Project will comply with all applicable federal, state and local permits required for alteration of wetlands, streams or rivers resulting from the Project. The following are specific measures that will be taken to protect water quality in the Project corridor:

- Erosion control measures will be implemented to minimize erosion and sedimentation, runoff and surface instability during construction.
- Construction will be conducted to minimize disturbances around surface water bodies to the extent possible.
- A storm water permit will be obtained from the State of South Dakota for the work at the Project Substation.
- Current drainage patterns in areas affected by construction will be maintained to the extent possible.
- Staging areas for project-related construction equipment will be located in areas that are not environmentally sensitive to control erosion.
- Staging and laydown yards for project-related construction will be established at least 100 feet from waterways or wetlands, if permitted by topography. No vegetation will be cleared between the yard and the waterway or wetland.
- Construction equipment will not be serviced within 100 feet of waterways or wetlands. Equipment will not be fueled within 100 feet of the waterways or wetlands.
- Any spills of fuels or other hazardous materials during construction or system maintenance will be promptly contained and cleaned up.

Once the Project is completed it will have no impact on surface water quality. Maintaining water quality throughout the Project area will minimize potential impacts to rare and common aquatic organisms and the aquatic environment.

s. **Air Quality**. Particulate emissions associated with construction of the Project will be mitigated using dust-suppression techniques. Examples of measures for control of particulates are, if necessary:

- Covering open haul trucks with tarps both on-site and off-site;
- Ensuring that construction vehicles use paved roads wherever possible to access the construction ROW;
- Removing any soil or mud deposited by construction equipment on paved roads and near the egress from unpaved areas, when necessary; and
- Stabilizing disturbed areas in compliance with the re-vegetation plan after construction is complete.

With implementation of these mitigation measures, particulate emissions from construction will be reduced. Accordingly, particulate emissions from construction of the

Project, as mitigated, will not be significant. No significant emissions are expected from the operation of the WTGs.

t. **Health and Welfare.** The Project layout will minimize changes and impacts to the existing environment by siting WTGs and access roads to avoid sensitive habitats to the extent possible, siting in open fields to avoid any major clearing activities, paralleling township and county roads when applicable, and adhering to the setback requirements in the Brookings County Zoning Ordinance 1212 to alleviate concerns related to noise and WTG collapse. The Project will result in few changes to existing agricultural practices because farming and grazing will continue in and around the WTGs and other Project facilities. Potential public health and safety hazards will be greatest during the short-term construction phase and will be effectively mitigated by complying with applicable federal and state occupational safety and health standards. The Application demonstrates that the Project will not have a significant impact on all factors evaluated. It is not anticipated that this Project will create any significant direct, cumulative or synergistic hazards to the health and welfare of human, plant or animal communities.

10. LAND USE

a. **Existing Land Use.** The Project will be located primarily on private land that is zoned as agricultural and regulated by Brookings County land use plans and ordinances. The Project is compatible with the existing land uses in the area. There is a wind farm being developed to the southeast of the Project. The only non-private land is that required for overhead transmission lines, which are required by county ordinance to be in county ROW where practical.

b. **Homes, Businesses and Persons Displaced.** No homes, businesses or persons will be displaced as a result of the construction, operation or maintenance of the Project. No existing off-site residence, business or public building or existing on-site or lessor's residence will be closer than 1,000 feet to a WTG.

c. **Land Use Compatibility.** The Project is compatible with the present land uses of the surrounding area. The Project will not disrupt or prevent any current land uses. The land is used for farming and ranching with a few home sites scattered throughout.

d. **Effect on Land Use.** The Project will have a minimal impact on land use.
The short-term impacts will include disruption of vegetation and farming caused by:
   - Preparing equipment yards and construction trailer sites;
   - Grading for construction of the Project Substation;
   - Excavation of ground for WTG foundations; and,
   - Temporary closure of access to livestock and farm irrigation, tilling and harvesting operations.

With the exception of the Project Substation, the short-term disturbances to vegetation will be repaired soon after construction is completed. Active construction at each WTG

location will be of short duration. However there will be a time lag (up to several weeks) between the time the foundations are installed and the WTGs are erected. No materials will be left in the road ROW at any time. When crews need to access the Project, they will travel primarily on access roads built expressly for this Project. Disturbances to farming will be expected to be infrequent and last only a few days per disruption. Closure of access to livestock and farm irrigation, tilling and harvesting operations will be minimized to reduce local occupational disruption.

Long term impacts will convert approximately 93 acres of land to utility-related uses for the life of the Project. Of these 93 acres, approximately 73 acres is cultivated farm land and would no longer be available for agricultural use.

e. **Noise.** The primary land use in the Project area is rural agricultural land. Average noise levels in these rural areas are typically in the 30 to 40 dBA range and are considered acceptable for residential land use activities. Ambient noise in rural areas is commonly made up of rustling vegetation and infrequent vehicle pass-bys. Higher ambient noise levels, typically 40 to 55 dBA are expected near roadways, such as Highway 30 and more urban areas, such as the nearby City of White. The commonly measured sound level for the G87 WTG is approximately 50 decibels at 1,000 feet. Applicant will comply with the Brookings County Ordinance that requires that the noise level shall not exceed 50 dBA, including constructive interference effects at existing off-site residences, businesses and public buildings. The nearest existing residence will be more than 1,000 feet from any Project facilities. Noise from operation of the WTGs will be from aerodynamic noise of the WTGs' blades moving through the air and from the gears and other machinery of the WTGs. No significant impacts due to noise are expected. In general, noise associated with wind energy is greatest during the construction phase. Construction noise will be similar to the noise from common farming activities. Given the remote location of construction activities, and the short-term duration of the proposed Project construction, noise impacts will be expected to be minor and not significant.

f. **Local Land Use Controls**. The Project is located predominantly on private land that is zoned agricultural and is regulated by Brookings County land use plans and ordinances. A Brookings County building permit is required for the construction of the Project.

g. **Radio and Television Interference.** The Applicant does not anticipate any significant impact on signals, but is prepared to mitigate if necessary. The Applicant shall work with telecommunications companies in the Project Area to alleviate any interference problems or unsafe conditions that may occur. Applicant shall investigate the concern and correct those problems caused by the Project in accordance with Federal Communications Commission (FCC) Rules regarding operations of such facilities.

h. **Aesthetics**. The area is dominated by rolling hills, crop fields, farmsteads and large open vistas. The land east and southeast of the Project is well known for the extensive wind farms and a new wind farm is currently being built to the south and east of the Project.

The aesthetic effect of the Project is based on subjective human response. The following mitigation measures have been incorporated into the Project:

- WTgs will not be located in biologically sensitive areas such as wetlands or relic prairies;
- WTGs will not be illuminated, except as required by FAA regulations;
- Existing roads will be used for construction and maintenance where possible. Road construction will be minimized;
- Access roads created for the Project will be located on gentle grades to minimize visible cuts and fills; and
- Temporarily disturbed areas will be reseeded to blend in with existing vegetation.

11. TIME SCHEDULE

The Applicant expects construction to occur during 2008 at the earliest. Construction will take approximately one year. A Gantt chart showing the planned construction schedule is attached as Exhibit 2.

12. COMMUNITY IMPACT

a. **Forecast of Socioeconomic Impacts**. This Project will contribute to the local economy through taxes generated due to Project construction and operation. The Project will employ 10-12 full time employees when operational. The Project will not have a significant long-term impact on population, income, occupational distribution or the integration or cohesion of communities in the Project area. No significant adverse socioeconomic impacts to the local communities and governmental facilities or services are anticipated as a result of the construction and maintenance of the Project.

b. **Forecast of Taxation Impacts**. The Project will pay taxes on the Project and the Project will increase Brookings County's tax base. The Project will result in a significant impact to the affected taxing jurisdiction. The estimated annual dollar value of taxes collected on the Project is over $1.05 million dollars. No significant immediate or long-term adverse impact on property and other taxes of the affected taxing jurisdictions are anticipated as a result of the construction and maintenance of the Project.

c. **Forecast of Agricultural Impacts**. Short-term impacts to agriculture will occur over a period of 6-9 months. They will occur primarily due to access road construction, foundation construction, and pole erection. During construction, temporary impacts such as soil compaction, damage to drainage tile and damage to crops are likely to occur. Up to 625 acres of agricultural land could be impacted temporarily by the Project. Permanent impacts to agricultural lands resulting from the Project are estimated at 93 acres. The Project will have minimal impact on the overall crop production within the Project corridor.

d. **Forecast of Population and Community Impacts**. The Project is not expected to substantially affect the population, income, occupational distribution or the integration and cohesion of the adjacent communities. The population of Brookings County in 2004

was estimated at 28,159 (Census 2004) and is not expected to change on a long-term basis as a result of this Project.

e. **Forecast of Transportation Impacts**. Impacts to the local transportation system will be minimal. The Project will require a new drive off of 207th Street in the southeast ¼ of Section 25 in Sherman Township to access the new substation. The majority of the route will parallel existing roadway. There will be some short-term temporary impacts to traffic along these roadways from construction during the construction phase of this Project. These impacts will include minor traffic delays when the poles are installed and the conductors are strung for the overhead 34.5 KV line.

f. **Forecast of Cultural Resource Impacts.** The Applicant has conducted a records search and an on-site cultural resources inventory of the Project area. The results of the cultural resources study are discussed in Section 17.3 and Appendix C of the Applicant's Permit Application. A full cultural resources study was done during 2006 and is part of a Programmatic Agreement (PA) among SD SHPO, WAPA, SDPUC, Applicant and other interested parties. The PA establishes the Area of Potential Effects (APE) for the Project, proposes a treatment plan for identified resources, describes procedures for unanticipated discoveries, sets forth procedures for tribal consultations and suggests general mitigation measures. The PA ensures that there will be no "unmitigatible" adverse effects on historic properties as defined under the National Historic Preservation Act (NHPA). As such, the Applicant will avoid areas containing identified resources.

13. EMPLOYMENT ESTIMATES

Construction will employ 50-75 workers for a period of 6 to 12 months. According to the South Dakota Governor's Office of Economic Development, in 2004 there were 827 workers employed in the mining and construction industry in Brookings County. An additional 50 workers for one year will be approximately a six percent increase in the mining and construction industry sector. It is expected that only a small portion of the construction work force will be native to the Brookings County area.

Once completed, the Project will employ 10-12 full time employees to maintain and monitor the Project.

14. FUTURE ADDITIONS AND MODIFICATIONS

There are no future additions planned to the Project.

15. WIND FARM DECOMMISSIONING

Applicant has entered into 20 year lease agreements for placement of the WTGs and associated infrastructure with private landowners within the Project area. The Applicant will have the option to renew the leases at the end of the 20 year agreement. The decision to renew the leases versus decommissioning the Project will be made at that time based on market conditions.

Upon termination of the Project, the Applicant shall have the obligation to dismantle and remove from the site all towers, WTGs, transformers, substations, overhead and underground cables, foundations, buildings and ancillary equipment to a depth of four feet within eighteen months of termination. To the extent possible the Applicant shall restore and reclaim the site to its pre-project topography and topsoil quality. All access roads shall be removed unless written approval is given by the affected landowner requesting that one or more roads, or portions thereof, be retained. Any agreement for removal to a lesser depth or for no removal shall be recorded with the County Zoning Office and shall show the locations of all such foundations. If a WTG is abandoned, that WTG shall be removed and the area returned to preconstruction condition within 12 months. An abandoned WTG would be a WTG that had ceased operations for a minimum of six months and the cessation in operations was not due to a force majeuer event.

The monetary cost of decommissioning based on extrapolation of data from a decommissioning study for the Navitas Benson Wind Farm project in Illinois is estimated at $9.8 million in 2006 dollars before any salvage values are considered as shown in attached Exhibit 3.

16. INFORMATION CONCERNING THE WIND PROJECT

a. **Configuration.** The installation will consist of up to 103 2-MW Gamesa WTGs with a ground-extended blade height from 351 feet to 471 feet. The Project's WTGs will be constructed of tubular steel towers painted with an optically sensitive paint that ranges from light grey to white in color depending on ambient light conditions. The housing will be constructed of fiberglass and will be painted with the same optically sensitive paint. Blades will be constructed of fiberglass and carbon fiber composite (and again painted with the optically sensitive paint). WTGs are not regularly spaced throughout the Project, but are sited to maximize wind generation and minimize environmental damage; the distance between WTGs varies between 1,000 and 2,000 feet. Distance between WTGs will comply with Brookings County ordinance Section 1212 requiring spacing no closer than 3 rotor diameters between them.

b. **Lighting.** On October 18, 2006 Applicant received a Determination of No Hazard for all proposed WTGs in the Project area. As part of the determination, FAA staff proactively determined a reduced lighting plan that calls for 57 WTGs to be lit with flashing red lights and 46 to remain unlit. The determination states, "[O]bstruction marking is not recommended on condition that all WTGs within the subject wind farm are completely white in color. Those WTGs for which obstruction lighting is recommended shall utilize flashing red lights (L-864), mounted above the nacelles, and all flashing lights within the Project shall be synchronized to flash simultaneously."

c. **Setback**. Setback distances shall follow Brookings County Zoning Ordinance 1212 which includes the following:
   - Distance from existing off-site residences, business and public buildings shall be 1,000 feet. Distance from on-site or lessor's residence shall be 1,000 feet;

- Distance from right-of-way of public roads shall be 500 feet or 1.1 times the height of the WTG depending upon which is greater, measured from the ground surface to the tip of the blade when in a fully vertical position; and
- Distance from any property line shall be 500 feet or 1.1 times the height of the WTG depending upon which is greater, measured from the ground surface to the tip of the blade when in a fully extended vertical position, unless wind easement has been obtained from the adjoining property owner.

Any variances to the above setback requirements shall be properly processed with Brookings County Zoning, the affected landowner and affected adjacent landowners. The Commission shall be notified of such variances.

d. **Maps**. The Project is depicted on an overhead photograph in attached Exhibit 1. Land use is depicted in Figure 8 in the Application. Cultural resources are depicted in maps in the Phase 1 Archeological and Architectural Surveys provided by Applicant as Attachment 1 in their response to Staff's data request 3-3.

e. **Vegetation Clearing**. Significant vegetation clearing will not be required for the Project since it was sited in order to minimize clearing of windbreaks. Brush will be removed and disposed of in a licensed landfill unless other disposal arrangements have been made with the landowner.

f. **Soils**. Excavated soils from WTGs' foundations will be hauled off-site, unless the landowners ask to take possession of the soil. After construction is complete, any compacted soil locations will be addressed as desired by the landowners. Reseeding areas disturbed by construction activities will be done with vegetation similar to what was removed. In cases of agricultural lands, no reseeding will occur unless specified by the landowner. During the time between when the foundations are installed and the WTGs are erected, the Applicant will ensure that all areas disturbed by construction and construction access are stabilized to prevent erosion of soils.

   Approximately 1.1 acres of land will be graded to construct the Project Substation. The Applicant will implement erosion control methods to minimize runoff during substation construction. Applicant will acquire a National Pollutant Discharge Elimination System (NPDES) permit, including development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for the Project Substation. Upon completion of construction activities, Applicant will restore the areas around the substation site.

   Post-construction reclamation activities will include repairing all damaged drainage tile, the removing and disposing of debris, dismantling all temporary facilities (including staging areas), employing appropriate erosion control measures and reseeding areas disturbed by construction activities with vegetation similar to that which was removed.

g. **Herbicides and Sterilants (Weed Control)**. No herbicides will be used throughout the Project except at the substation. All areas within the Project Substation fence line will be surfaced with a six-inch layer of gravel. Upon completion of construction of the work at

the substation, a soil-applied herbicide will be applied to all gravel surfacing for vegetation control.

h. **Construction Site Access**. Access to the Brookings County Substation will be off 207th Street. All other access will be on new roads leading to each WTG. Measures will be implemented to minimize erosion and sedimentation, runoff and surface instability during access road construction. All approvals from Brookings County required for the construction of this road will be obtained before commencement of construction thereof.

i. **Waste Disposal**. All waste generated during the construction of the Project will be disposed of in an approved landfill on a regular basis. Trash and scrap will be deposited in waste containers or otherwise controlled and managed on-site prior to ultimate disposal. Personal litter, including bottles, cans and paper from construction activities shall be removed on a daily basis.

j. **Restoration and Re-vegetation**. All disturbed areas will be seeded, mulched and re-vegetated as soon as possible after construction has been completed in any particular area. In cases of agricultural lands, no reseeding will occur unless specified by the landowner. Landowner desires will be considered in determining seed type depending on the adjacent land use.

k. **Configuration of Poles**. For the nine miles of above ground cabling, Applicant proposes to use wooden single pole three crossarm 45/H1 structures for the 34.5 kV transmission lines. Structures will have a height of 25-30 feet and an average span of 150 feet between structures.

l. **Conductor Configuration.** Overhead lines for the Project will follow industry standards set by the APLIC. These standards include insulating conductors near structures, increasing the visibility of lines, and increasing the height of insulators. The structures will carry two 3-phase circuits on a T2-336 or similar conductor.

m. **Reliability and Safety**. As discussed in Section 17.4 of the Applicant's Permit Application, the Project facilities will be constructed in full compliance with all applicable National Electrical Safety Code electrical performance and safety codes and will not present significant impacts posed by safety or electrical hazard to the general public.

The Applicant's and the industry's safety procedures shall be followed during and after installation of the Project. This will include clear signage during all construction activities.

The setback distances for WTGs shall follow Brookings County Zoning Ordinance 1212.

WTGs shall sit on solid steel enclosed tubular towers in which all electrical equipment shall be located. Access to the tower is only through a solid steel door that shall be locked and accessed only by authorized personnel.

The exterior of the WTGs are designed so that it shall not be climbable.

The WTGs shall have vibration sensors that detect ice buildup on the blades. In the event that ice collects on the blades or the anemometer senses a certain wind speed but the production is less than anticipated for the measured speed, the WTGs would shut down. These types of shutdowns require a manual restart.

n. **Right of Way or Condemnation Requirements**. Land options have been obtained from all affected landowners. A list of all the affected landowners within the Project area was submitted to the Commission on August 23, 2006. Individual property owners shall be advised as to the construction schedules, needed access to the Project area and any vegetation clearing required for the Project. The work area shall be cleared of the amount of vegetation necessary to construct, operate and maintain the Project and to comply with the requirements contained in this Stipulation. All materials, including trees if they must be removed, shall either be chipped or stacked on site with landowner agreement for their use, or must be removed from the Project site.

   Applicant shall work with local utilities and the South Dakota One-Call system to identify underground utilities in the Project area. This minimizes conflicts or impacts to existing utilities. When additional property is temporarily required for construction, temporary limited easements (TLE) may be obtained from landowners for the duration of construction. TLEs shall be limited to special construction access needs or additional staging or lay down areas.

   Applicant does not have condemnation authority.

o. **Necessary Clearing Activities**. Applicant anticipates minimal tree clearing will need to be performed for this Project. Cleared trees shall be replaced two for one with two year old saplings elsewhere on landowners land unless declined by the landowner.

p. **Configuration of Underground Facilities**. The underground collection grid will consist of seven circuits with approximately 15 WTGs per circuit. The configuration is a triplexed configuration buried at a minimum depth of four feet and covered with a layer of rock free soil and hazard tape. The connection configuration, distance between WTGs, and cable size is illustrated in Attachment 5, Turbine Medium Voltage Single Line Diagram to Data Response 1-12.

AMENDMENT OF AND ADDITION TO PERMIT APPLICATION

The Application filed July 11, 2006, is hereby amended as follows:

- The Project layout attached to the Application as Figure 3 is hereby amended to conform to the layout set forth in Exhibit 1 to this Stipulation, which was provided by the Applicant as Attachment 4 in their response to Staff's data request 3-10.
- The Application is also amended to include the text from sections 5, 6, 9a, 9b and 9d of this Stipulation.

CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the subject matter and parties to this proceeding pursuant to SDCL Chapter 49-41B and ARSD 20:10:22. Subject to the findings made on the four elements of proof under SDCL 49-41B-22, the Commission has authority to grant, deny or grant upon such terms, conditions or modifications of the construction, operation and maintenance of the wind energy Project as it may deem appropriate.

2. To the extent that any of the above made findings of fact are determined to be conclusions of law or mixed findings of fact and conclusions of law the same are incorporated herein by this reference as a conclusion of law as if set forth in full.

3. Administrative rules have the force of law and are presumed valid. *Feltrop v. Department of Social Svcs.,* 559 NW2d 883, 884 (SD 1997). An administrative agency is bound by its own rules. *Mulder* v. *Department of Social Svcs., 675 NW2d 212, 216 (SD 2004).*

4. The proposed wind farm is a "Wind Energy Facility" as defined in SDCL 49-41B-2.

5. The Applicant's Permit Application, as amended and supplemented by responses to Staff data requests, complies with the applicable requirements of SDCL Chapter 49-41B and ARSD 20:10:22.

6. The Project as defined herein will comply with all applicable laws and rules, including all requirements of SDCL Chapter 49-41B and ARSD 20:10:22.

7. The Project, if constructed in accordance with the terms and conditions of this permit, will not pose a threat of serious injury to the environment nor to the social and economic conditions of inhabitants or expected inhabitants in the siting area.

8. The Project, if constructed in accordance with the terms and conditions of this permit, will not substantially impair the health, safety and welfare of the inhabitants of the siting area.

9. The Project, if constructed in accordance with the terms and conditions of this permit, will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.

10. The Commission has the authority to revoke or suspend any permit granted under the South Dakota Energy Facility Permit Act for failure to comply with the terms and conditions of the permit pursuant to SDCL 49-41B-33.

11. White Wind Farm, LLC will be the permitted owner of the Project.

12. The burden of proof on the parties on which they have the burden is by a preponderance of the evidence.

13. The Commission concludes that it needs no other information to assess the impact of the Project to determine if Applicant has met its burden of proof.

14. The Commission concludes that the Application and all required filings have been filed with the Commission in conformity with South Dakota law. All procedural requirements required under South Dakota law have been met. All data and exhibits have been timely filed.

15. The Commission concludes that the Application is supported by the Application, Responses to Staff's Data Requests and documentary evidence and satisfies all applicable requirements by SDCL Chapter 49-41B and ARSD 20:10:22.

16. The Commission concludes that the Application, as amended and supplemented, is legally and procedurally appropriate and complete. All formatting and timing requirements have been complied with. All public hearing requirements have been met.

17. The Applicant has met its burden of proof pursuant to SDCL 49-41B-22 and is entitled to a permit as provided in SDCL 49-41B-24, subject to the following:

STIPULATE TO THE FOLLOWING TERMS AND CONDITIONS:

1. The Applicant shall obtain all governmental permits that may be required by any township, county, state or federal agency or any other governmental unit for construction activity covered by that permit. Copies of any permits obtained by the Applicant shall be sent to the Commission.

2. In order to ensure compliance with the terms and conditions of this permit pursuant to SDCL 49-41B-33, it is necessary for the enforcement of this Order that all employees, contractors and agents of the Applicant, to the extent of its interest, involved in this wind energy project be made aware of the terms and conditions of this permit and understand fully and comply with the terms and conditions of this permit.

3. If during construction, the Applicant or its agents discover what may be an archaeological resource, the Applicant or its agents shall immediately cease work at that portion of the site and notify the Commission and the State Archaeologist. If such an archaeological resource is discovered, the Applicant shall develop a plan in accordance with the Programmatic Agreement to salvage, avoid or protect the archaeological resource. If such a plan will require a different location than that approved by the Commission, the Applicant shall seek Commission approval for the new location in writing five days in advance of proceeding with any further construction.

4. In order to mitigate interference with agricultural operations during and after construction, the Applicant shall locate all WTGs, to the extent feasible and prudent, to

minimize adverse impacts and interferences with agricultural operations, shelterbelts and other land uses or activities. The Applicant shall take appropriate precautions to protect livestock and crops during construction. The Applicant shall repair all fences and gates removed or damaged during construction or maintenance unless negotiated with the landowner or designee. The Applicant shall be responsible for the repair of private roads and lanes damaged when moving equipment or when obtaining access to the right-of-way.

5. The Applicant shall provide each landowner across or on whose property the facilities are to be constructed with the following information:
    i. A copy of the Commission's Order;
    ii. Detailed safety information describing (a) reasonable safety precautions for existing activities on or near the facilities; (b) known activities or uses that are presently prohibited near the facilities; and (c) other potential dangers or limitations near the facilities;
    iii. Construction/maintenance damage compensation policies and procedures; and,
    iv. The Commission's address and phone number.

6. The Applicant shall also comply with all other terms and conditions as set forth in the Findings of Fact.

7. The terms and conditions of the permit shall be made a uniform condition of construction, subject only to an affirmative written request for an exemption addressed to the Commission. A request for an exemption shall clearly state which particular condition should not be applied to the property in question and the reason for the requested exemption. The Commission shall evaluate such requests on a case-by-case basis.

8. The Applicant shall be expected to conform to the Avian Protection Plan Guidelines prepared by the Avian Power Line Interaction Committee and U.S. Fish and Wildlife Service.

9. The Applicant shall comply with all requirements of Brookings County Zoning Ordinance 1212 – Wind Energy System Requirements.

10. If the presence or operation of the WTGs or substation causes interference with radio, television or any legal communication device, the Applicant shall take all appropriate action to minimize any such interference and make a good faith effort to restore or provide reception levels equivalent to reception levels in the immediate areas just prior to construction of the facilities. This mitigation requirement shall apply to homes or other structures in place at the time of construction but shall not apply to any dwellings or other structures built after construction of the facilities approved in this Permit have been completed.

11. The Applicant shall comply with all recommendations of the Final Environmental Impact Statement dated April 2007.

12. If construction of any portion of the Project commences more than four years after the date the permit is granted, Applicant must certify to the Commission before construction that such facilities continue to meet the permit conditions.

13. All pre-existing roads and lanes used during construction must be restored to a condition that shall accommodate their previous use and areas used as temporary roads during construction must be restored to their original condition.

14. Applicant shall notify the Commission one month prior to the start of construction and shall provide short written monthly construction update reports.

15. Reclamation, fertilization and reseeding shall be done according to BMP's unless otherwise specified by the landowner.

16. Applicant's obligation for reclamation and maintenance of the site shall continue throughout the life of the Project.

17. Upon termination of operation of the Project, the Applicant shall have the obligation to dismantle and remove from the site all towers, turbine generators, transformers; substations, overhead and underground cables, foundations, buildings and ancillary equipment to a depth of four feet within 18 months of termination. To the extent possible the Applicant shall restore and reclaim the site to its pre-project topography and topsoil quality. All access roads shall be removed unless written approval is given by the affected landowner requesting that one or more roads, or portions thereof, be retained. Any agreement for removal to a lesser depth or for no removal shall be recorded with the County Zoning Office and shall show the locations of all such foundations. If a WTG is abandoned, that WTG shall be removed and the area returned to preconstruction condition within 12 months. An abandoned WTG shall be a WTG that had ceased operations for a minimum of six months and the cessation in operations was not due to a force majeuer event.

18. Before commencing construction, the Applicant shall furnish a continuing surety in the form of an irrevocable letter of credit in the amount of $4.9 million to comply with the requirements of SDCL 49-41B-35 and ARSD 20:10:22:33:01. This requirement shall be binding on all successor owners of the White Wind Farm, LLC.

19. Removed trees shall be replaced by two year old saplings at another location on the landowners land unless declined by the landowner.

20. Applicant shall repair or replace all fences and gates removed or damaged during all phases of construction and operation of the Project.

21. Applicant shall repair or replace all drainage tile, broken or damaged, during all phases of construction and operation of the Project.

22. Staging areas or equipment shall not be located on cultivated land unless otherwise negotiated with landowners.

23. Applicant shall remove all waste that is a product of construction and operation, restoration and maintenance of the site, and properly dispose of it on a regular basis.

24. Applicant shall as soon as practicable upon the completion of the construction of each WTG restore the area affected by the activities to as near as is practicable to the condition as it existed prior to the beginning of construction.

25. Applicant shall provide, if requested, educational materials for landowners within the Project area about the Project and any restrictions or dangers concerning the Project.

26. Applicant shall provide any necessary safety measures for traffic control or to restrict public access to the Project.

27. Applicant shall advise the Commission of any extraordinary events which take place at the site of the Project, such as a WTG collapse, WTG failure, injured worker or private individual, the death of any threatened or endangered species or the discovery of a large number of dead birds or bats on the site within five days of such event.

28. Applicant shall implement a procedure for how complaints concerning the Project shall be handled by Applicant.

29. No deviations from the described Project as depicted in attached Exhibit 1 are anticipated. If it is necessary to change any structure locations for engineering, safety, zoning or other reasons, the Applicant shall comply with Section 2ii in its lease with landowners which allows the Applicant to change the proposed location of any of the WTGs or Project Facilities by up to fifty (50) lineal feet from its initially proposed location in connection with the initial installation of the WTGs or Project Facilities. This allows for minor deviations that may be necessary during construction. Any deviations larger than 50' shall require Commission approval.

30. Any structure changes in location requiring a variance to the Brookings County zoning requirements must be filed with the Commission after approval by Brookings County.

31. Applicant shall offer and subsidize annual training to local area fire departments in all Project operations where fire and rescue operations may occur.

32. Each WTG shall be more than 1,000 feet from existing residences, businesses and public buildings.

33. This Stipulation shall be binding on all successor owners of the Project.

Dated MAY 22, 2007

By:

White Wind Farm, LLC
Name CHRISTOPHER MOORE
Title MANAGING MEMBER

Karen E. Cremer 5/29/07
Karen E. Cremer
Staff Attorney
South Dakota Public Utilities Commission

Darla Pollman Rogers
Name Darla Pollman Rogers
Title Attorney
Sioux Valley Energy

Audrey P. Rickett
Name
Title
SDREA

Exhibit 1

WTG and Access Road Locations

Attachment 1

White Wind Farm

0 3,800 7,600 15,200 Feet

Legend

- NAVITAS Buffer Area
- NAVITAS Siting Area
- City of White
- Turbine Sites
- Residential_Business_Public Gathering Sites
- Access Roads
- Public Roads

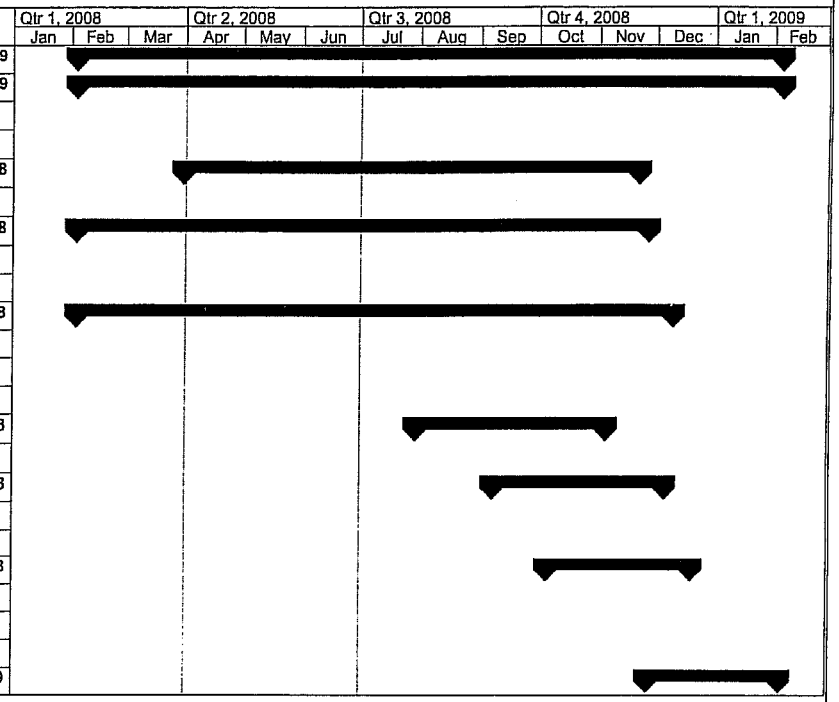
N
W E
S

Exhibit 2

Construction Gantt Chart

White Wind Farm Estimated Construction Schedule

ID	Task Name	Duration	Start	Finish
1	1 Engineering & Construction	263 days	Mon 2/4/08	Wed 2/4/09
2	1.1 Construction	263 days	Mon 2/4/08	Wed 2/4/09
3				
4				
5	1.1.1 Interconnection Facility construction	170 days	Mon 3/31/08	Fri 11/21/08
19				
20	1.1.2 Transformation and Switching substations construction	213 days	Mon 2/4/08	Wed 11/26/08
24				
36				
37	1.1.3 Windfarm Roads and Foundations construction	222 days	Mon 2/4/08	Tue 12/9/08
38				
42				
57				
58	1.1.4 34.5 kV Tie Construction	70 days	Wed 7/30/08	Tue 11/4/08
66				
67	1.1.5 WindTurbine delivery	65 days	Mon 9/8/08	Fri 12/5/08
80				
93				
94	1.1.6 Windturbines erection	55 days	Mon 10/6/08	Fri 12/19/08
106				
118				
120				
121	1.1.7 Winturbines commissionig	50 days	Thu 11/27/08	Wed 2/4/09



Project: Shaffer Mt Wind
Date: Fri 5/11/07

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

Exhibit 3
White Wind
Farm Decommissioning Costs
'5-4-07

Column>	B	C	D
Row		**Benson**	**White**
6	# WTGs	79	103
7	WTG Rating	2.0 MW	2.0 MW
8	Miles Access Roads	18.1	22.0
9	Crane Pads	80	103
10	Miles Underground Cable	33.2	45
11	Miles Overhead Line	0	9
12			
13	WTG Decommissioning Unit Cost	$50,000	$50,000
14	**Total Cost**	**$3,950,000**	**$5,150,000**
15			
16	Spread Footing Foundation Decommissioning Unit Cost	$16,000	$16,000
17	**Total Cost**	**$1,264,000**	**$1,648,000**
18			
19	Access Road Decommissioning Unit Cost	$38,926	$38,926
20	**Total Cost**	**$704,560**	**$856,371**
21			
22	Crane Pad Decommissioning Unit Cost	$4,793	$4,793
23	**Total Cost**	**$383,450**	**493,692**
24			
25	Underground Cable Decommissioning Unit Cost	$-	$-
26	**Total Cost**	**$-**	**$-**
27			
28	Earthwork and Topsoil Restoration Unit Cost Per Mile Rd	$58,011	$58,011
29	**Total Cost**	**$1,050,000**	**$1,276,243**
30			
31	Overhead Line Decommissioning Unit Cost	$-	$15,000
32	**Total Cost**	**$-**	**$135,000**
33			
34	Substation Decommissioning Unit Cost	$-	$200,000
35	**Total Cost**	**$-**	**$200,000**
36			
37			
38	**OVERALL DECOMMISSIONING COST**	**$7,352,010**	**$9,759,306**

MEMO: Salvage values not considered.
All dollar values are in 2006 dollars.

Exhibit 3 Continued (Sources)

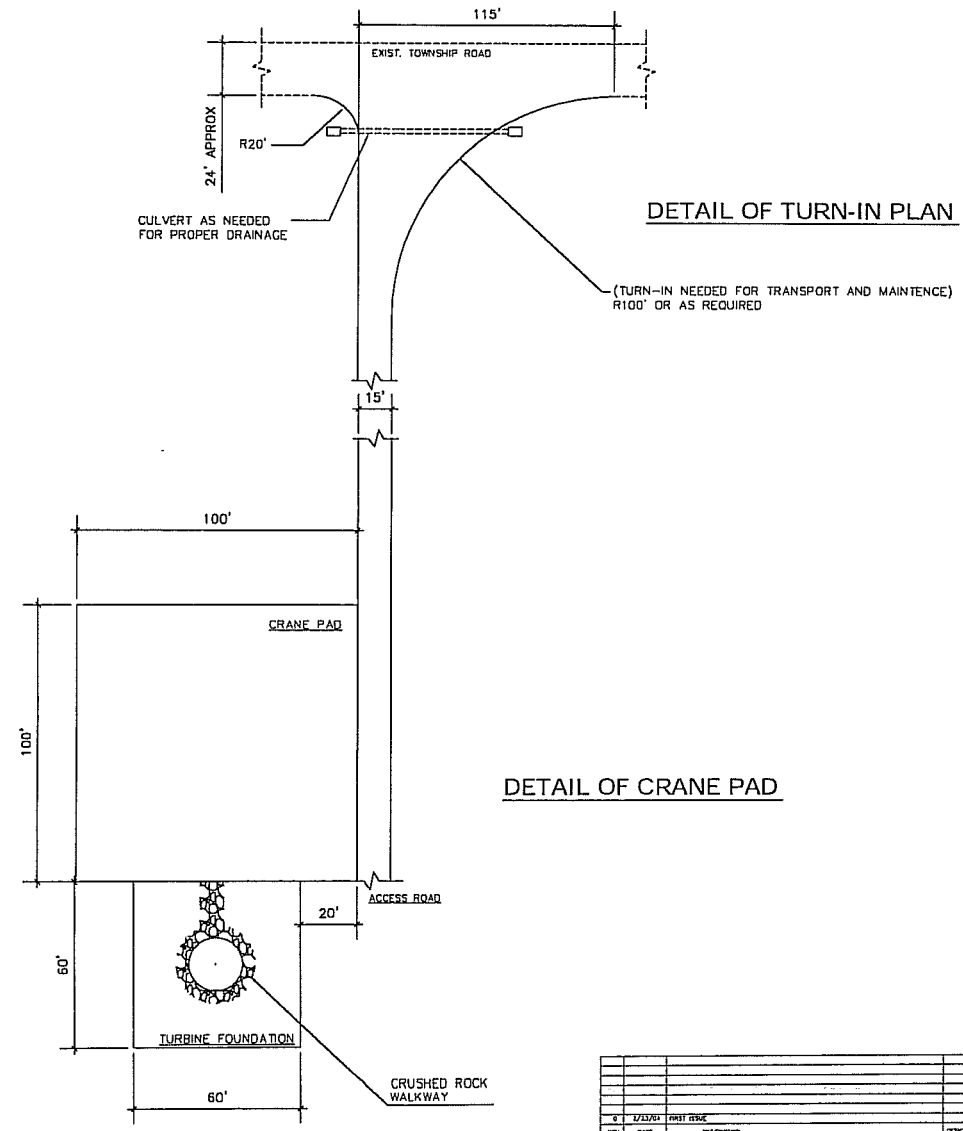
Sources:

	B	C	D
6	# WTGs	Benson Decommissioning Report Dec 06, p. 1	EIS introductory page
7	WTG Rating	Benson Decommissioning Report Dec 06, p. 1	Application, p. 22
8	Miles Access Roads	Benson Decommissioning Report Dec 06, p. 5	Copeland email to Solem 1-9-07
9	Crane Pads	Benson Decommissioning Report Dec 06, p. 7	=D6
10	Miles Underground Cable	Benson Decommissioning Report Dec 06, p. 9	Application, p. 25
11	Miles Overhead Line	NA	Application, p. 25
12			
13	WTG Decommissioning Unit Cost	Benson Decommissioning Report Dec 06, p. 2	=C13
14	**Total Cost**	=C13 x C6	=D13 x D6
15			
16	Spread Footing Foundation Decommissioning Unit Cost	Benson Decommissioning Report Dec 06, p. 5	=C16
17	**Total Cost**	=C16 x C6	=D16 x D6
18			
19	Access Road Decommissioning Unit Cost	=C20 / C8	=C19
20	**Total Cost**	Benson Decommissioning Report Dec 06, p. 7	=D19 x D8
21			
22	Crane Pad Decommissioning Unit Cost	=C23 / C9	=C22
23	**Total Cost**	Benson Decommissioning Report Dec 06, p. 9	=D22 x D9
24			
25	Underground Cable Decommissioning Unit Cost	NA	NA
26	**Total Cost**	NA	NA
27			
28	Earthwork and Topsoil Restoration Unit Cost Per Mile Rd	=C29 / C8	=C28
29	**Total Cost**	Benson Decommissioning Report Dec 06, p. 10	=D28 x D8
30			
31	Overhead Line Decommissioning Unit Cost	NA	Data Response 2-8
32	**Total Cost**	NA	Data Response 2-8
33			
34	Substation Decommissioning Unit Cost	NA	Data Response 2-7
35	**Total Cost**	NA	Data Response 2-7
36			
37			
38	**OVERALL DECOMMISSIONING COST**	=C14+C17+C20+C23 +C26+C29+C32+C35	=D14+D17+D20+D23+D26+D29+D32+D35

Exhibit 4

Diagram of Typical Structure Layout

DIMENSIONS



REV.	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
0	2/23/04	FIRST ISSUE	KJL	KJL	JC

☐ CONCEPT
☐ FOR APPROVAL
☐ FOR MANUFACTURE
☐ FOR CONSTRUCTION
☐ AS BUILT

SCALE

REV.	DESCRIPTION	P.D.	P.E.	DATE

TYPICAL CONSTRUCTION DIMENSIONS

FILE NO.	SCALE	PROJECT DESIGNER
	NTS	

PROJECT ENGINEER	EXT. NO.	DATE

NAVITAS ENERGY

GENERAL ACCESS ROADS

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MAY 17 2007

SOUTH DAKOTA PUBLIC
UTILITIES COMMISSION

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY NAVITAS ENERGY, INC. FOR AN ENERGY CONVERSION FACILITY PERMIT FOR THE CONSTRUCTION OF THE WHITE WIND FARM AND ASSOCIATED COLLECTION SUBSTATION AND ELECTRIC INTERCONNECTION SYSTEM	DOCKET NUMBER EL06-020 STIPULATION

SETTLEMENT STIPULATION

1. On July 11, 2006, White Wind Farm, LLC, a wholly owned subsidiary of Navitas Energy, Inc. ("Navitas") made Application to the South Dakota Public Utilities Commission ("Commission") for an energy conversion facility permit for construction and operation of the White Wind Farm.

2. Said wind farm, consisting of up to 103 2 MW wind turbines and generators, is located within the service territory of Sioux Valley Energy ("Sioux Valley").

3. Sioux Valley was granted intervention in this docket on November 17, 2006; and South Dakota Rural Electric Association ("SDREA") was granted intervention on October 3, 2006.

4. Thereafter, the parties entered into negotiations and have reached agreement on the following issues: (a) provisioning of station power to the wind farm; and (b) limitation of use of the collector lines to transmission of power. The terms and conditions of the Stipulation among the parties are as follows:

I. Station Power

A. Sioux Valley agrees to sell and deliver to Navitas, and Navitas agrees to purchase and receive from Sioux Valley all electric power and energy, made available through interconnection to the grid, that Navitas may need for station power at the wind farm facility, except when generating power from the wind farm.

B. Navitas shall pay Sioux Valley for said station power at rates consistent with Sioux Valley's other customers. Navitas agrees to remit payment upon receipt of monthly billings from Sioux Valley, and shall be subject to late payment penalties consistent with Sioux Valley's company policies.

C. Navitas shall become a cooperative member of Sioux Valley, and shall be subject to Sioux Valley's terms and conditions of membership.

D. The parties acknowledge that Basin Electric is the source of energy to provide station power to Navitas, and that East River Electric ("East River") sells and transmits said energy to Sioux Valley through the Western Area Power Administration ("WAPA") Integrated System ("IS"). Navitas will interconnect to WAPA's 345 kV at White, South Dakota, at which point a bi-directional meter will be installed to measure demand and energy.

E. Navitas shall be responsible for all labor and costs of installing, maintaining, testing and replacing, if necessary, the bi-directional meter, which will be capable of measuring the power flow into and out of the wind farm project. The IS interconnection point to the wind farm will be a new point of delivery for East River. All power flowing into the wind farm and station power will be added to East River's load and bill-

ing to Sioux Valley. Sioux Valley will bill Navitas for its station power usage, all through the one bi-directional meter, with detents, installed at the point of interconnection. The metering is required to meet all of WAPA's applicable meter specifications.

Navitas shall allow WAPA to provide Sioux Valley, East River, and Basin Electric access to the meter readings from the bi-directional meter for the station power usage.

II. Collector Lines

A. The parties further acknowledge that as a result of construction of the wind turbines and generators, Navitas will have access to collector circuits or lines utilized by the turbines.

B. The parties hereby agree that Navitas will use its collector circuits or lines solely for the purpose of transmission of power generated by the turbines to the wholesale purchaser of said power. Navitas agrees not to use its collector circuits or lines to supply or distribute power to existing or new end-user customers, or for any purpose other than as agreed to by the parties herein.

5. The parties agree that this Stipulation is binding upon the parties hereto and upon the successors, legal representatives, and assigns of the respective parties hereto.

6. The parties agree that this Stipulation is subject to approval by the Commission. Upon approval by the Commission, Sioux Valley will not participate further in this docket.

7. By its signature hereto, SDREA agrees to the terms and conditions of this Stipulation, and will not participate further in this docket, upon Commission approval of this Stipulation.

NAVITAS ENERGY, INC.

By_____

Date MAY 7, 2007

SIOUX VALLEY ENERGY

By_____

Date 5-15-07

SOUTH DAKOTA RURAL ELECTRIC ASSOCIATION

By_____

Date 5-16-07