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U.S. DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION
ROCKY MOUNTAIN CUSTOMER SERVICE REGION

FINDING OF NO SIGNIFICANT IMPACT

Interconnection of the Colorado Highlands Wind Energy Project,
Logan County, Colorado
DOE/EA-1611

AGENCY: U.S. Department of Energy (DOE), Western Area Power Administration (Western)

ACTION: Finding of No Significant Impact

SUMMARY: This Finding of No Significant Impact (FONSI) was prepared in accordance with Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA), 40 CFR § 1508.13; and DOE NEPA Implementing Procedures , 10 CFR § 1021.322. This FONSI supports Western's proposal to approve an Interconnection Agreement for the Colorado Highlands Wind Project (Project or Wind Project). The FONSI describes the information Western used to determine that Western's proposal to allow interconnection of the Project with Western's transmission system and the connected action of the Project will not have a significant impact on the human environment. Colorado Highlands Wind, LLC (CHW) applied (via predecessor project owner Wind Energy Prototypes) to Western to interconnect a 90-megawatt (MW) wind power facility with Western's existing Sterling-Frenchman Creek 115-kV Transmission Line. Approval of the Interconnection Agreement would allow the Project to interconnect with Western's proposed Wildhorse Creek Switchyard. In accordance with the DOE NEPA Implementing Procedures, Western prepared an environmental assessment (EA) on Western's action and the Project. The EA evaluates the potential environmental impacts associated with Western's decision on the Interconnection Agreement and the Project. The EA is incorporated by reference into this FONSI as is the Mitigation Action Plan (MAP) required by 10 CFR § 1021.331.

Western is required to respond to CHW's request to connect the wind energy project to its transmission system in accordance with the Open Access Transmission Tariff. Western's tariff provides for new interconnections to its transmission system for all eligible customers, consistent with Western requirements and subject to an environmental review under NEPA. Western's decision is whether to approve the interconnection of the Wind Project with Western's

transmission system. Western's approval of this interconnection would enable the Wind Project to proceed.

Prior to making a decision to approve the interconnection request from CHW, Western is required to prepare an EA in accordance with NEPA. The EA examines the potential environmental impacts of Western's decision to approve the application for interconnection and the No Action Alternative. Under the No Action Alternative, Western would not approve the interconnection request. The EA includes an analysis of the potential environmental effects associated with the construction, operation, and maintenance of the Project and Western's proposal to construct, own and operate the Wildhorse Creek Switchyard at the point of interconnection. The EA was distributed for agency and public comment and review on November 25, 2008. Comments were requested by January 7, 2009.

CHW's objective is to construct, own, and operate a renewable wind energy facility that will provide wind-generated electricity to the local power grid. Wind-generated power would further the objectives of the President's National Energy Policy to diversify energy sources by utilizing non-hydroelectric renewable sources, such as wind power, to a greater extent.

Project Description: A complete description of the Project is provided in Chapter 2 of the EA.

Public Involvement: The EA contains information on notifications to Tribes, involved local, state and Federal agencies and the public (including landowners and adjacent landowners). All correspondence from local, state and Federal agencies, Tribal governments, and the public is available at Western's Loveland, Colorado office.

Comments Received on the EA: Western received no comments on the EA from agencies or the public during the comment period, which ran from November 25, 2008 through January 7, 2009. Additional discussions and coordination with the Colorado Division of Wildlife and the U.S. Fish and Wildlife Service continued after the comment period, to clarify applicability of the Platte River Recovery Implementation Program to Endangered Species Act Consultations for Project water use. The Project submitted the appropriate documentation and charges related to their participation to South Platte Water Related Activities Program, Inc. (SPWRAP) in accordance with the State of Colorado requirements.

Alternatives: DOE's NEPA regulations require that an EA include a discussion of the no action alternative (10 C.F.R. 1021.321(c)). Under the no action alternative, Western would not execute an interconnection agreement with CHW and the wind project would not be constructed. The no action alternative provides a baseline against which the effects of the Project are compared. The direct and indirect impacts associated with the proposed Project and Western's proposed switchyard would not occur if Western denied the interconnection request. However, the Project could proceed if CHW was successful in arranging for an alternative interconnection in which Western had no decision, but this option is too speculative to discuss in detail.

The EA describes system and facility options that Western analyzed and the reasons why those alternatives were not accepted. The EA also describes Project alternative configurations for the layout of turbine locations that were considered but changed to reduce impacts.

ENVIRONMENTAL IMPACTS: Western's conclusions on the Project's environmental impacts are based on information contained in the EA. In reaching its conclusions, Western considered that the Project incorporates Western's Standard Construction Practices and several additional Project-committed mitigation measures. Mitigation measures designed to ensure that impacts to certain resources would not be significant are described in the Mitigation Action Plan (MAP) prepared for the Project and available on request. This FONSI incorporates these mitigation measures by reference.

The EA identified and evaluated the existing environment and potential environmental impacts for the following resources:

- Climate and Air Resources
- Noise
- Water Resources
- Wildlife
- Vegetation
- Threatened and Endangered Species and Species of Concern
- Earth Resources
- Land Use, Transportation, and Recreation
- Visual Resources
- Socioeconomics and Environmental Justice
- Cultural Resources
- Health and Safety and EMF

The basis for Western's conclusions about the proposed Project impacts on the resources presented in the EA is summarized below.

Climate and Air Resources: The project would not affect climate. Construction and operation would result in direct and short term impacts form small amounts of dust and tailpipe emissions from construction vehicles. Dust control measures during construction would minimize the impacts.

Water Resources: There are no expected impacts to surface water bodies since there are none in the Project area. The Project would implement a stormwater pollution prevention plan to control off-site movement of sediment and construction materials. The Project would use water during construction for concrete and dust suppression. The Project would provide a one-time payment to the SPWRAP to cover their water use and depletions and to comply with the State of Colorado's requirements related to the Platte River Recovery Implementation Program. For water use during operations and maintenance the Project applied to the SPWRAP to cover depletions from a proposed domestic water well in accordance with SPWRAP requirements.

Wildlife: Impacts to wildlife are expected to be insignificant. The Project has committed to conducting avian and bat surveys at the site to determine the need for additional studies. The project is not located in a migratory bird flyway and wind power-related mortality is typically low when compared with other causes of bird mortality. Bats may be impacted by collision-

related mortality or barotrauma but the impacts to bats are expected to not be significant. Bats may migrate through the Project Area and thus may be at risk, but the impacts at the local population level are expected to be low. Studies on birds and bats will be coordinated with the Colorado Division of Wildlife and the U.S. Fish and Wildlife Service. Transmission lines would be constructed in accordance with the recommendations of the Avian Powerline Interaction Committee to reduce the potential for bird strikes and electrocutions. The Project coordinated closely with the U.S. Fish and Wildlife Service and the Colorado Division of Wildlife to identify desirable approaches and mitigation for the protection of wildlife resources. The project layout and Project construction schedule reflects the results of this coordination. Activities for surface occupation and timelines impacted by construction are consistent with agency requirements for timing restrictions and activity buffers. The resulting impacts to wildlife due to the proposed Project would result from both long and short term effects on their habitats including vegetation impacts, human disturbance and the construction, operation and maintenance of the project. Overall impacts are expected to be minor.

Vegetation: Construction and installation of project facilities would cause temporary and permanent loss of vegetation as described in the EA. The Project adopted practices that would minimize impacts and require revegetation in some areas. Noxious weeds would be controlled by the Project.

Threatened or Endangered Species and Species of Concern: There would be no effects on Threatened or Endangered Species or species that are proposed for listing.

Earth Resources: No economically important mineral resources occur at the project site. Impacts to fossils could include the inadvertent destruction of scientifically-important fossils due to excavation or vandalism. Potential adverse impacts to soils include increased erosion from runoff due to compaction and loss of vegetation and possible impacts caused by fuel spills from construction equipment. No significant direct, indirect, or cumulative impacts are expected for geology, paleontology, or soil based on the proposed environmental protection measures described in the EA and the MAP, including the agreement to stop work if paleontological resources are encountered so they can be evaluated, and the lack of known mineral deposits in the Project site.

Land Use, Transportation, and Recreation: The Project would result in the initial disturbance of approximately 180 hectares (446 acres) and life-of-project disturbance of 19 hectares (47 acres). Land use within the Project area is primarily undeveloped with uses such as agricultural, grazing, native prairies and CRP land. There is limited residential development in the Project area. These existing land uses would continue, as they currently exist prior to development, with only minor long term impacts. There would be minor loss of land use under permanent structures and roads affecting grazing, agriculture activities would be more difficult around towers and transmission structures and minor loss of CRP land and prairie would occur. There are no state or National Parks, Wild and Scenic rivers or other areas of recreational or scenic importance in the Project area.

Traffic would increase on the roads leading to and within the Project area during the construction stage, as equipment and materials are transported into the area. Large pieces of equipment such

as rotor blades that are oversized loads may temporarily slow traffic on U.S. Highway 6 and some county roads as they are moved into the Project area. This additional heavy traffic would also cause additional wear on existing roads, but transportation would be conducted in accordance with Colorado Department of Transportation regulations and therefore adverse impacts to roads are not anticipated. The increase in traffic would not cause a major change in the transportation network in the Project area. Impacts to land use, transportation and recreation due to the proposed Project would be short term and minor. Some land use impacts would be long term but minor. Transportation impacts would be short term and are expected to be minor. Impacts to recreation, especially in the form of hunting may be long term but are expected to be minor.

All recreational land uses would continue as they are prior to development, with the possible exception of hunting, which would be precluded in the vicinity of wind turbines due to the potential for damage of facilities by ammunition fired during hunting. This may have a minor effect on a landowner's income, as well as the recreational use of the area by hunters, the income impacts would be offset by the rent paid by CHW. The reduction in hunting opportunity would be insignificant.

Visual resources: The Project site is visible from U.S. Hwy 6 and from County Roads. The Wildhorse Creek Switchyard would be visible in the foreground at the intersection of U.S. Hwy 6 and CR 87. The Project transmission line would be visible as it crosses U.S. Hwy 6 to interconnect with the Wildhorse Creek Switchyard. The proposed Project would not impact any national or state parks or designated scenic areas with recognized regionally important viewsheds. U.S. Highway 6 is located approximately 4 miles south of the Project wind site and runs just north of the proposed Wildhorse Creek Switchyard. Several county roads traverse the area generally on section lines. The substation, access roads, overhead power lines, vehicles and dust during construction would impact visual resources. The Collector Substation located along County Road 85, between County Roads 42 and 44 would be viewed most frequently by local landowners, and it would represent an industrial facility in a rural landscape. All power connections within the Project area (from the individual turbines to the Collector Substation) would be placed underground and would not result in an adverse effect on visual resources. The only overhead transmission line associated specifically with the Project would be the approximately 5-mile long interconnection line from the Project southward to the Wildhorse Creek Switchyard located adjacent to State Highway 6. The construction of an additional 19 miles of access roads to the turbines would constitute a minor increase in the number of roads (County and private) in the Project area.

All structures more than 61 meters (200 feet) tall must have aircraft warning lights in accordance with requirements specified by the Federal Aviation Administration (FAA) (AWEA 2004a). However, in the case of wind power developments, it will allow a strategic lighting plan that provides complete conspicuity to aviators but does not require lighting every turbine. The lights would be installed on the nacelle prior to lifting the nacelle onto the turbine tower. In order to meet FAA requirements, CHW plans to light perimeter wind turbine generators along with the highest elevation turbine.

Project visual impacts would last the life of the project. Whether the impacts are adverse or not depends on the attitude of the observer.

Socioeconomics and Environmental Justice: No new community or county infrastructure would be required to support Project construction or O&M. The Project would generate sales and use taxes for goods and services purchased during construction and operation. It also would provide property taxes to the town of Fleming and to Logan County. The Project would employ an estimated 150 workers during construction and would create 8-10 permanent O&M jobs. All of these impacts would be beneficial to the affected towns/cities, to Logan County and to the state of Colorado. Logan County and the Town of Fleming are low income communities in the area of potential effect, but the Project is expected to generate revenue needed by the county and the town, so no adverse effects to low income communities would occur. Furthermore, the Project would generate revenue for the private landowners on whose land the Project is located, further benefiting the area's economy. No environmental justice issues were identified.

Cultural Resources: Western consulted with the State Historic Preservation Officer (SHPO) under Section 106 on the National Historic Preservation Act. Class I and III surveys were conducted. The SHPO agreed with Western's determination that the project would not adversely affect all but one of the historic properties investigated as part of this project. Western and the Project will complete a study and consultation to address one property for which the SHPO did not agree with Western's determination on eligibility for the National Register of Historic Places. Construction activities would not directly affect the property. No Traditional Cultural Properties (TCPs) are known to occur within the project area, and no TCPs were identified during the current inventory or as the result of Tribal consultation.

Noise: The predicted noise levels at the closest residential receptors are comparable to noise levels anticipated at a quiet home or rural night-time ambient noise levels. Substations emit both transformer noise and switchgear noise. Transformers emit a low-frequency humming noise. Substation noise levels at the nearest residence and nearest known raptor nest would be below ambient levels. Wind turbine and substation noise would be at or below ambient levels at the nearest residences. Due to the temporary and intermittent nature of noise effects and the presence of similar noise sources within the Project area, nose impacts to residents and wildlife would be minor.

Public Health and Safety: Public access to private lands is already restricted by landowners and would continue to be restricted in accordance with easement agreements. This would prohibit members of the general public from accessing the wind farm facility located on private property. Existing safety hazards would include traffic on county roads, potential for fires, possible accidents related to agricultural and recreational activities, and electric and magnetic (electromagnetic) fields. The Project team would consist of qualified contractors and subcontractors who employ trained and competent personnel. All contractors, subcontractors and their personnel are required to comply with all state and Federal worker safety requirements, specifically all of the applicable requirements of the Occupational Safety and Health Administration (OSHA). There is good, improved access to the Project area via the County Road system from the State Highways and Interstate Highways. Traffic in the area of the Project site is generally limited to local residents and visitors as there is little reason for non-residents to

be traveling in the Project area. Traffic accidents and interference with local school buses or emergency vehicles are not anticipated to be likely impacts due to the fact that the county roads in the Project area are not heavily used as a result of the sparse population in the general area. The potential for fire or explosion from the wind energy facility is minimal. The electrical effects of the proposed 115-kV transmission line can be characterized as current-induced magnetic fields and voltage-induced electrical fields. There were no sensitive receptors identified in the Project area. There are no Federal or Colorado State standards governing electric or magnetic fields. Local aircraft or radar or television signals within the area can be impacted by EMF produced by electrical equipment and transmission lines. The Project area is not located in the vicinity of a local or regional airport or a military air base. In the event that the Project results in impact to radar, microwave, television or radio transmissions, CHW would work with the owner of the impacted communication system to resolve the problem.

Cumulative Impacts. No significant cumulative impacts are identified.

Unavoidable Adverse Effects. Unavoidable adverse effects – residual impacts that likely would remain after mitigation – would include the following:

- The consumption of fossil fuels and water and labor and materials would be expended during construction and to a much lesser extent, during operation (e.g., fuel for O&M vehicles, energy to heat O&M building). This would be offset by renewable energy produced through wind rather than consumption of fossil fuel.

- Up to 180 hectares (446 acres) of soil and vegetation disturbance would occur, resulting in some soil loss and some stream sedimentation, until surface disturbed areas are successfully reclaimed (271 hectares [670 acres]). Up to 19 hectares (47 acres) of vegetation would be lost for the life-of-Project.

- Some additional emissions of fugitive dust, sulfur dioxide, nitrogen oxides, carbon monoxide, carbon dioxide and volatile organic compounds would occur, mostly during construction of the Project.

- Some wildlife mortality could occur during construction (e.g. vehicle related accidents) and during operation.

COPIES OF THE FINAL EA AND MITIGATION ACTION PLAN ARE AVAILABLE FROM:

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DETERMINATION: Based on the information presented in the Final EA and the commitments made in the Mitigation Action Plan, Western determines that its proposal to approve the Interconnection Request from the Colorado Highlands Wind LLC does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act. Therefore, preparation of an Environmental Impact Statement is not required, and Western is issuing this Finding of No Significant Impact.

Issued in Loveland, Colorado on FEB 0 2 2009, 2009.

James D. Keselburg
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