

Record of Decision for the Klondike III/Biglow Canyon Wind Integration Project

DECISION

The Bonneville Power Administration (BPA) has decided to implement the Proposed Action identified in the Klondike III/Biglow Canyon Wind Integration Project Final Environmental Impact Statement (FEIS) (DOE/EIS-0374, September 2006). Under the Proposed Action, BPA will offer PPM Energy, Inc. (PPM) contract terms for interconnection of the proposed Klondike III Wind Project, located in Sherman County, Oregon, with the Federal Columbia River Transmission System (FCRTS). BPA will also offer Portland General Electric (PGE)¹ contract terms for interconnection of its proposed Biglow Canyon Wind Farm, also located in Sherman County, Oregon, with the FCRTS, as proposed in the FEIS. To interconnect these wind projects, BPA will build and operate a 12-mile long, 230-kilovolt (kV) double-circuit transmission line between the wind projects and BPA's new 230-kV John Day Substation in Sherman County, Oregon. BPA will also expand its existing 500-kV John Day Substation.

BACKGROUND

BPA is a federal agency that owns and operates the majority of the high-voltage electric transmission system in the Pacific Northwest. This system is known as the FCRTS. BPA has adopted an Open Access Transmission Tariff (tariff) for the FCRTS, consistent with the Federal Energy Regulatory Commission's (FERC) *pro forma* open access tariff.² Under BPA's tariff, BPA offers transmission interconnection to the FCRTS to all eligible customers on a first-come, first-served basis, with this offer subject to an environmental review under the National Environmental Policy Act (NEPA).

For all requests for interconnection of generating facilities that exceed 20 MW, BPA also acts consistently with FERC's Order No. 2003, Standardization of Large Generator Interconnection Agreement and Procedures, and Order 661, Interconnection for Wind Energy, as adopted by BPA and incorporated, with FERC approval, into BPA's tariff. Orders No. 2003 and 661 provide a uniform process and agreement for offering interconnection to wind generating facilities exceeding 20 MW. In its Order 2003 compliance filing, BPA included provisions in its Large Generator Interconnection Procedures (LGIP) that reflect BPA's obligation to complete an environmental review under NEPA of a proposed large generation interconnection before deciding whether to offer a final LGIA to the party requesting interconnection.

¹On August 16, 2006, Portland General Electric bought the rights to develop the Biglow Canyon Wind Farm from Orion Energy, LLC. Orion submitted the original interconnection request to BPA.

² Although BPA is generally not subject to FERC's jurisdiction, BPA follows the open access tariff as a matter of national policy. This course of action demonstrates BPA's commitment to non-discriminatory access to its transmission system and ensures that BPA will receive reciprocal and non-discriminatory access to the transmission systems of utilities that are subject to FERC's jurisdiction.

PPM and PGE are the parties requesting interconnection. Consistent with its tariff, including the LGIP, BPA needs to respond to these interconnection requests and comply with its NEPA responsibilities.

DESCRIPTION OF BPA's PROPOSED ACTION

BPA will execute a Large Generation Interconnection Agreements (LGIA) with PPM to provide interconnection services for up to 300 MW from the Klondike III Wind Project. BPA will also execute a LGIA with PGE to provide interconnection services for up to 400 MW from the Biglow Canyon Wind Farm Project. These LGIAs will provide for interconnection of PPM's and PGE's respective projects to the FCRTS and their generation of electricity in the BPA Control Area. The LGIAs also will provide for construction of interconnection facilities and continued operations and maintenance of interconnection equipment.

As part of these agreements, BPA will construct and operate an approximately 12-mile, double-circuit 230-kV transmission line in Sherman County, Oregon that will provide interconnection for the electricity from the wind projects to the FCRTS. This line will extend north from the existing PPM Klondike Schoolhouse Substation for about 5 miles, and then head generally west-northwest for about 7 miles to a new John Day 230-kV Substation. Steel tubes and lattice steel towers will be used for BPA's transmission line. The line will cross privately-owned land that is used primarily for dryland wheat farming.

BPA will build and operate the new 230-kV John Day Substation immediately adjacent to its 500-kV John Day Substation. BPA will also expand the John Day 500-kV Substation and place new equipment in this substation to allow the interconnection of the new 230-kV substation to the FCRTS.

DESCRIPTION OF THE WIND PROJECTS

A reasonably foreseeable consequence of the Proposed Action is the construction and operation of the wind projects respectively proposed by PPM and PGE. Although BPA has no jurisdiction over, supervision over, ownership of, or financial involvement in the proposed wind projects, the potential environmental effects associated with these wind projects have been identified in the EIS and considered by BPA decision-makers.

The Klondike III Wind Project is a wind generation project that will be located in northern Sherman County, Oregon. This wind project, which will produce about 300 MW, is located adjacent to PPM Energy's Klondike I (24 MW) and Klondike II (75 MW) wind projects. Klondike III facilities will consist of up to 165 wind turbines and towers, about 19 miles of new roads, up to 2 operations and maintenance (O&M) facilities, and one substation. Turbine towers will be approximately 263 feet tall at turbine hub height, and will range from 388 feet to 414 feet high including blades.

To collect power generated by the individual wind turbines at the Klondike III Wind Project, a network of underground 34.5-kV power lines will be installed primarily under new and existing

roads at the project. These collector lines will route the power to a switchyard, where an above-ground double-circuit 34.5-kV collector line will carry the power about 3.5 miles to a new 5-acre project substation located adjacent to PPM's existing Klondike Schoolhouse Substation. Project power will be stepped up from 34.5-kV to 230-kV at this new substation and directed to the Klondike Schoolhouse Substation, which will connect to BPA's new 230-kV transmission line.

Construction of the Klondike III Wind Project will temporarily disturb about 295 acres of land, and project facilities will occupy about 74 acres. All wind project facilities will be on private agricultural land. PPM has negotiated long-term wind energy leases with the landowners. The wind energy leases allow PPM to permit, construct, and operate wind energy facilities for a defined period. In exchange, the landowners receive compensation. The terms of the wind energy leases allow landowners to continue their farming operations in and around the wind turbine generators and other facilities where the farming activities would not impact operation and maintenance of the wind generation equipment.

The Biglow Canyon Wind Farm is a wind generation project that also will be located in northern Sherman County, Oregon. This wind project will produce up to 400 MW and will consist of up to 225 wind turbines and towers, about 40.5 miles of new roads, an O&M facility, and a substation. Turbine towers will be up to 279 feet tall at turbine hub height, and will be up to 443 feet high including blades.

A combination of underground and above-ground 34.5-kV power lines will be installed to collect power generated by the individual wind turbines at the Biglow Canyon Wind Farm. These collector lines will be routed to a new 6-acre project substation constructed by PGE along BPA's new 230-kV transmission line. Project power will be stepped up from 34.5-kV to 230-kV at this new substation, which will connect to BPA's new line.

Construction of the Biglow Canyon Wind Farm will temporarily disturb up to 388 acres of land, and project facilities will occupy up to 177 acres. Like the Klondike III Project, all Biglow Canyon project facilities will be on private agricultural land. PGE has negotiated long-term wind energy leases with the landowners in which the energy facilities will be constructed and operated in exchange for compensation, similar to the PPM leases.

ALTERNATIVES CONSIDERED

In addition to the Proposed Action, the Middle Alternative and the No Action Alternative were considered in reaching this decision. Chapter 2 of the EIS more fully describes each alternative, as well as alternatives eliminated from further consideration.

The Middle Alternative would originate from the same location as the Proposed Action, but would follow a different route to the new 230-kV substation. In general, this alternative would follow the same route as the Proposed Action for the first 3 miles beginning at PPM's Klondike Schoolhouse Substation, but would then head directly west along Medler Road for about 4 miles. This alternative would then head generally northwest to BPA's John Day 500-kV Substation. This alternative would be about 12.5 miles long and would have greater land use impacts.

The No Action Alternative is often called the no-build alternative. Under this alternative, BPA would not sign interconnection agreements with PPM and PGE, and would not construct a new BPA substation, expand the existing John Day 500-kV Substation, or construct a transmission line. The environmental impacts described for each of the BPA action alternatives would not occur. In addition, it is likely that both PPM's and PGE's proposed wind projects would not be built since there appears to be no feasible interconnection option for these projects other than the FCRTS. Over the short-term, the No Action Alternative is the environmentally preferable alternative because it would have the fewest impacts in the near term. No construction would occur. In the long term, the No Action Alternative would not provide any means to integrate the power generated from the wind projects and would not support renewable energy.

These alternatives are evaluated in detail in Chapter 4 of the EIS.

PUBLIC COMMENT

BPA published a Notice of Intent (NOI) to prepare an EIS for its proposed action in the Federal Register on February 14, 2005 (70 FR 7488). BPA also mailed letters on February 11, 2005, February 24, 2005, and April 12, 2005 to potentially interested parties that explained the proposal, the environmental impact statement process, and how to participate. BPA held a public scoping meeting on March 1, 2005 in Wasco, Oregon to describe BPA's proposed action and accept any scoping comments. A second scoping meeting, also in Wasco, was held on April 27, 2005. After receiving comments requesting that the scope of the EIS be expanded, BPA published a second NOI to extend the scoping period for 30 days on December 6, 2005 (70 FR 72635).

A Notice of Availability of the Draft EIS was published in the Federal Register on May 5, 2006 (71 FR 26498). A public comment period for the Draft EIS was open until June 19, 2006. BPA held a public meeting on May 24, 2006 in Wasco, Oregon to accept public comment on the draft document. During the comment period, three individuals and two agencies submitted comment letters or comment forms. In total 58 comments were identified from the public meeting notes and comment letters and forms. BPA issued the Final EIS in September 2006 (DOE/EIS-0374). A Notice of Availability of the Final EIS was published in the Federal Register on September 22, 2006 (71 FR 55463). Chapter 10 of the Final EIS contains all comments made on the Draft EIS and includes responses to those comments.

RATIONALE FOR DECISION

I have decided to implement the Proposed Action identified in the EIS. The selected alternative best satisfies the purposes identified in the EIS:

- Maintain transmission system reliability to industry standards;
- Act consistently with BPA's statutory obligations;
- Continue to meet BPA's contractual obligations;

- Minimize environmental impacts including impacts on the following resources: fisheries, wildlife, water resources, soil and vegetation, land use, recreation, visual, cultural, socioeconomics, air quality, noise and human health.
- Minimize costs; and
- Encourage development of renewable energy resources.

The Proposed Action will provide a new BPA transmission line that will be built to industry standards and will maintain system reliability. Offering LGIAs to these two entities is consistent with BPA's statutory obligations and is in accordance with BPA's Open Access Transmission Tariff. The LGIAs will include provisions as necessary to ensure the continuing safe, reliable operation of the FCRTS. While rejecting the requested interconnections would not threaten the FCRTS, rejection would be contrary to BPA's Open Access Transmission Tariff, would not encourage development of renewable resources, and would not enhance the power supply available to the nation or to the Pacific Northwest. Furthermore, I find no unusual environmental circumstances or inconsistencies with BPA's environmental and social obligations to warrant rejection of the requested interconnection.

I have considered the environmental impacts of BPA's proposed action and the two wind projects described in detail in the Final EIS and the responses to comments in Chapter 10 of the Final EIS. As described in the EIS, BPA's new 230-kV transmission line, new substation, and John Day Substation expansion would generally create no or low impacts. Constructing the transmission line along the proposed route, as opposed to the alternative route considered in detail in the EIS, is environmentally superior because it will result in less total disturbance of environmental resources and be less intrusive on the landscape.

The proposed wind projects also would generally create no or low impacts. Wildlife resources and local visual resources are the only resources to receive an impact rating other than "none" or "low." The low to moderate impacts to wildlife are from the expected bird and bat mortality and the cumulative impact of this project on wildlife when combined with other proposed wind projects in the region. The low to high impacts to visual resources reflect the effect that the transmission line and the turbine strings from both wind projects would have on viewers in the local area, but this impact diminishes with distance from the project.

MITIGATION

BPA minimized potential short-term and long-term environmental and social impacts of the Proposed Action through project design and development of mitigation measures. Mitigation measures presented in the Draft EIS and updated in the Final EIS for the selected alternative are presented in the attached Mitigation Action Plan. All practicable means to avoid or minimize environmental harm are adopted.

PPM and PGE have included extensive mitigation in their wind project proposals and through the Oregon state permitting process. These mitigation measures are included in the final orders and site certificates each developer received from the state of Oregon Energy Facility Siting Council (EFSC) for their respective wind project. The final orders and site certificates have been included in the FEIS, and it is expected that the wind project developers will fully comply with

the mitigation measures identified in the final orders and site certificates, as well as the terms and conditions of all other permits issued by regulatory agencies for the wind projects.

PUBLIC AVAILABILITY

This ROD will be available to all interested parties and affected persons and agencies. It is being sent to all stakeholders who requested a copy. Copies of the Klondike III/Biglow Canyon Wind Integration Project Draft and Final EISs and additional copies of this ROD are available from BPA's Public Information Center, P.O. Box 3621, Portland, Oregon, 97208-3621. Copies of these documents may also be obtained by using BPA's nationwide toll-free document request line: 1-800-622-4520, or by accessing BPA's project Web site: http://www.efw.bpa.gov/environmental_services/Document_Library/Klondike/.

CONCLUSION

I have decided it is in the best interest of BPA to interconnect the two proposed wind projects to the FCRTS. BPA therefore will execute a LGIA with PPM to interconnect up to 300 MW from the Klondike III Wind Project into the FCRTS. BPA also will execute a LGIA with PGE to interconnect up to 400 MW from the Biglow Canyon Wind Farm into the FCRTS. BPA will construct a new 230-kV transmission line and substation and will expand the existing John Day 500-kV Substation to accomplish these interconnections, as described in this ROD and the Klondike III/Biglow Canyon Wind Integration Project EIS.

Issued in Portland, Oregon.

/s/ Stephen J. Wright
Stephen J. Wright
Administrator and
Chief Executive Officer

October 25, 2006
Date

**Klondike III/Biglow Canyon Wind Integration Project
BPA Mitigation Action Plan**

Resource Category	Mitigation
Land Use	<p>BPA will compensate landowners through perpetual easements for the transmission line right-of-way and access roads, and purchase the land in fee for the substation site. BPA will compensate landowners for any crop damage that occurs during construction, operation and maintenance of the transmission line and BPA substation facilities.</p>
Transportation	<p>When construction of the transmission line and substation is completed, the contractor responsible for construction will remove temporary access roads and staging areas used to access tower construction sites. The contractor will rehabilitate areas temporarily affected by construction to pre-construction conditions.</p> <p>Roadways used for transporting equipment and materials to the project site will be inspected by Sherman County and BPA prior to beginning construction, to identify any potential safety concerns, such as large potholes or inadequate pavement conditions. During construction, transport routes will be periodically inspected by the County and BPA to determine if construction-related traffic is having an adverse impact on the roadway.</p>
Fish and Wildlife	<p>According to Oregon Department of Fish and Wildlife (ODFW) standards, the upland tree habitat is considered irreplaceable, since it supports a species (Swainson’s hawk) that ODFW considers a State Sensitive species. If the Swainson’s hawk nests in this area in subsequent years, construction activities will be coordinated with ODFW and limited during the Seasonality and Sensitive Period for the species, which is June 1 through August 31 (ODFW, 1994). With this coordination and mitigation, there would be no impact to Swainson’s hawks from the BPA Proposed Action.</p> <p>The following mitigation actions will apply to all transmission line and substation construction activities and will benefit all habitat types and wildlife species in the project vicinity:</p> <ul style="list-style-type: none"> • Sensitive areas will include all undeveloped habitats within the transmission line corridor, since these may provide nesting or denning areas for special status/sensitive wildlife. These areas will be flagged in the field prior to construction and the construction contractors will be directed to avoid them during construction. • Road construction and vehicle use will be minimized where possible to minimize impacts to agricultural habitats. For instance, if construction occurs during summer, access to tower locations would not have to be graveled.

Resource Category	Mitigation
	<ul style="list-style-type: none"> • For habitat restoration and revegetation, seed mixes will be developed in consultation with ODFW. Restoration efforts will be discussed with the landowner to take into consideration existing land use activities and their potential impacts to the vegetation restoration efforts. • Measures to reduce the potential spread of noxious weeds will be developed in consultation with the Sherman County Soil and Water Conservation District. The facility will be monitored regularly to prevent the spread of noxious weeds. • Best management practices (BMPs) and erosion and sediment control measures will be employed during construction of the transmission line and substation to avoid and/or minimize impacts to downslope areas. Areas of unavoidable soil disturbance will be stabilized downslope with straw wattles and bio-filter bags.
Vegetation	<p>The following mitigation actions will apply to all transmission line and substation construction activities and are anticipated to benefit all habitat vegetation/categories and wildlife species:</p> <ul style="list-style-type: none"> • Maps will be prepared to show sensitive areas that are off limits during the construction phase. These areas will be flagged in the field prior to construction and the construction contractors will be directed to avoid them during construction. Sensitive areas may include vegetation types that provide nesting or denning areas for special status/sensitive wildlife. • Road construction and vehicle use will be minimized where possible to minimize impacts to sensitive habitats. For instance, if construction occurs during summer, access to tower locations will not have to be graveled. • For habitat restoration and revegetation, seed mixes will be developed in consultation with ODFW. Restoration efforts will be discussed with the landowner to take into consideration existing land use activities and their potential impacts to the vegetation restoration efforts. • A weed survey will be completed prior to and following construction. Measures to reduce the potential spread of noxious weeds will be developed in consultation with the Sherman County Soil and Water Conservation District. The facility will be monitored regularly to prevent the spread of noxious weeds. <p>BMPs and erosion and sediment control measures will be employed during project construction to avoid and/or minimize impacts to downslope areas. Areas of unavoidable soil disturbance will be bounded downslope with straw wattles and bio-filter bags.</p>

Resource Category	Mitigation
<p>Visual Resources</p>	<p>The following measures will be implemented to further reduce potential impacts.</p> <ul style="list-style-type: none"> • Use of steel tubes (vs. steel lattice) for transmission line towers to the extent possible. • Use of non-specular conductors (i.e., a conductor that has been modified to reduce the amount of reflected light from its surface).
<p>Cultural Resources</p>	<p>BPA will avoid disturbing known archaeological and historic resources. Local tribes that historically lived in the area will be consulted to identify any cultural resources to avoid.</p> <p>During construction, archaeological sites and historic homesteads will be temporarily flagged in the field and on construction maps before and during construction. If necessary, archaeological construction monitors will be present during construction in selected locations to prevent accidental damage to identified cultural resources, as well as cultural resources that may exist in portions of the project area identified by the tribes through consultation.</p> <p>In the event that undiscovered archaeological sites are inadvertently disturbed during construction, construction work will be halted at the site until an archaeologist or cultural resource specialist could assess the site and determine appropriate mitigation measures.</p>
<p>Noise, Public Health and Safety</p>	<p>BPA will develop and implement a Spill Prevention and Contingency Plan to minimize the potential for spills of hazardous material including provisions for storage of hazardous materials and refueling of construction equipment outside of riparian zones.</p> <p>To minimize the potential of fires starting from construction-related activities, roads will be established prior to construction to minimize vehicle contact with dry grass; idling vehicles in grassy areas will be avoided; and open flames, such as cutting torches, will be kept away from grassy areas. Staging areas will be graveled to minimize fire potential.</p> <p>BPA will take all appropriate precautions to prevent fires and follow the fire control regulations, including equipping all vehicles with basic fire-fighting equipment including extinguishers, shovels, and other equipment deemed appropriate for fighting grass fires. BPA will also develop a fire prevention and suppression plan. BPA prohibits the storage of flammable materials on the right-of-way. Operation and maintenance of the proposed line and substation will follow prescribed policies that minimize the potential for fire.</p> <ul style="list-style-type: none"> • Prior to the start of construction, the contractor will receive environmental and safety training and prepare and submit for BPA’s approval a safety plan. This plan will detail how the contractor will manage hazardous materials such as fuel, oil, solvents etc., and how emergency situations will be handled. The

Resource Category	Mitigation
	<p>safety plan will be kept on site at all times during construction.</p> <ul style="list-style-type: none"> • During construction, the contractor will hold meetings, as needed, to go over potential safety issues and concerns. • At the end of each workday, the contractor and any subcontractors will secure the site to protect equipment and the general public. • The contractor and any subcontractors will be trained in tower climbing rescue techniques, first aid including cardiopulmonary resuscitation, and safety equipment inspection. • BPA will provide notice to the landowners and the public of construction activities. • If implosive fittings are used to connect the conductors, BPA or the contractor will notify landowners and local government officials in advance. • During construction activities, the contractor will follow BPA specifications for grounding fences and other objects on and near the proposed right-of-way.
<p>Air Quality</p>	<p>BPA will mitigate for dust during construction and follow all necessary local and federal requirements. During days when the Air Quality Index is moderate or worse, dust mitigation measures will also be used.</p> <p>The following mitigation measures could be used:</p> <ul style="list-style-type: none"> • Water trucks will be used on an as-needed basis to minimize dust • Gravel (2-3 inch) will be placed on access roads before turbine construction • All construction vehicles will travel at low speeds to minimize dust • Chipping or “lop and scatter” will be used to dispose of small limbs and branches. No burning will be allowed. • All on-road vehicles will comply with Oregon State emission standards. • Off-road vehicles will be in good running condition, minimizing their emissions. • On-road diesel vehicles will use low sulfur fuel. • Reseeding and revegetation will minimize exposed soil prone to erosion.