



**Department of Energy**

Bonneville Power Administration  
P.O. Box 3621  
Portland, Oregon 97208-3621

ENVIRONMENT, FISH AND WILDLIFE

June 18, 2009

In reply refer to: KEC-4

**RECEIVED**

JUN 22 2009

**ENERGY FACILITY SITE  
EVALUATION COUNCIL**

Mr. Jim La Spina, Energy Facility Site Specialist  
Washington Energy Facility Site Evaluation Council  
905 Plum Street SE  
P.O. Box 43172  
Olympia, WA 98504-3172

**RE: Public Comments - Whistling Ridge Wind Project**

Dear Mr. La Spina:

As part of the Bonneville Power Administration's (BPA) goal of remaining transparent in the eye of the public, I am sending you all public comments that were gathered during our Public Scoping period that was from April 17, 2009, until May 18, 2009. Please be advised that there are probably quite a few duplicate comments that you may already possess. I just want to ensure that we have covered everything that was shared with BPA.

I'm including comments received from both our website that was set up specifically for this project as well as comments that were emailed to me directly.

I look forward to working with you further on this project. If you have any questions or concerns, please feel free to contact me directly at (503) 230-4145.

Sincerely,

  
\_\_\_\_\_  
Andrew M. Montano  
Environmental Protection Specialist - KEC-4

Enclosures:  
Public Comments

bcc:  
Official File – KEC – (EQ-14)

AMontano:amm:4145:06-18-2009

*<http://bpaweb/orgs/orgs>*

*[main/efw/epa/tsrvcs/Projects/EFSEC\\_Letter\\_Sharing\\_PublicComments.doc](http://bpaweb/orgs/orgs/main/efw/epa/tsrvcs/Projects/EFSEC_Letter_Sharing_PublicComments.doc)*

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**Whistling Ridge Wind Interconnection Project - scoping**

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The following comments were submitted in response to the open comment period described below.

Bonneville Power Administration (BPA) has been asked by SDS Lumber Company to interconnect its proposed Whistling Ridge Energy Project in Skamania County, Washington, to the Federal Columbia River Transmission System.

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**For More Information:**

[http://www.efw.bpa.gov/environmental\\_services/Document\\_Library/Whistling\\_Ridge/](http://www.efw.bpa.gov/environmental_services/Document_Library/Whistling_Ridge/)

Close of comment: 5/18/2009

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- WRW090001 - Ruth Dye
- WRW090002 - Dr. Helen Paulus
- WRW090003 - Jack Kapp
- WRW090004 - Catherine Dickson/Conf. Tribes of the Umatilla Indian
- WRW090005 - Michael Eastwich
- WRW090006 - John Tyler
- WRW090007 - Kelly Powell/National Park Service
- WRW090008 - Glen Holmberg
- WRW090009 - Johnson Meninick/Yakama Nation Cultural Resources Program Manager
- WRW090010 - Nathan Baker, Staff Attorney/Friends of the Columbia Gorge

If you believe information on this site is missing or in error, please [Submit that comment here](#).

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Close of comment: 5/18/2009

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- WRW090001 - Ruth Dye  
Facts and Questions regarding the Whistling Ridge Energy project scheduled for assessment by BPA and Washington EFSEC From Ruth Dye, Resident and land owner in Underwood, WA April 24, 2009 Fact SDS Lumber started a LLC called Whistling Ridge Energy LLC (WRE) Fact WRE would finance, develop, own and operate the proposed wind project. Fact There will be approximately 50 turbines up to 426 feet tall Question: If mitigation for damage to the wildlife or watershed is deemed necessary, will there be money for land banks paid for by WRE or will WRE pay SDS for land set aside for mitigation. That is like pulling money out of one of your hip pockets and putting it in your other hip pocket as a tax dodge for SDS/WRE. Fact There will be an infrastructure constructed of roads, transformers, underground collector lines, a substation, and operations and maintenance facility on the site. Question: How will you protect the 3 watersheds in this area? Little Buck Creek (both forks), Lapham Creek, and Little White Salmon? Fact Washington EFSEC (this is the Washington Energy Facility Site Evaluation Council) must decide whether to grant necessary permits and approvals for siting WRE's proposed wind project, and BPA (Bonneville Power Administration) must decide whether to allow the interconnection of WRE's proposed project to the FCRTS (Federal Columbia River Transmission System). Question: Who has the final say in the project? Fact BPA and Washington EFSEC are preparing a joint NEPA and SEPS on WREs proposed wind project. Question: Who is actually conducting the Environmental Impact Statement (EIS)? Seems like this should be a 3 party with no fiduciary interest. If this is being conducted by 2 power companies it represents only those vested in the interest of this project and not the people of the United States. Fact There will be a public meeting once the EIS is completed. Question: Will this be held locally so local people can be involved? If not, why not? Question: Is the site for the proposed WRE project within the WA Department of Fish and Wildlife guidelines "DEVELOPMENT AND APPLICATION OF GUIDELINES FOR SITING, CONSTRUCTING, OPERATING AND MONITORING WIND TURBINES"? In July 2002, the USFWS Turbine Siting Working Group held a three-day meeting with fifteen Service representatives. The meeting resulted in the creation of draft interim voluntary guidance for wind power development. The guidance was critically reviewed by all Service Regions, later by the Washington Directorate, and finally by the department of the Interior. The interim voluntary guidance for land-based wind turbines was completed and approved in July 2003, when it was announced in the

Federal Register. The complete guidelines can be found at:  
<http://www.osti.gov/bridge/servlets/purl/837481-2JBKG4/native/837481.pdf>  
<http://www.fws.gov/r9dhcbfa/windenergy.htm>. Fact: Quote from the USFWS "Overall, USFWS seeks more cooperation and collaboratio

- WRW090002 - Dr. Helen Paulus
- WRW090003 - Jack Kapp
- WRW090004 - Catherine Dickson/Conf. Tribes of the Umatilla Indian
- WRW090005 - Michael Eastwich
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Received  
4/24/09

WRW090002

B O N N E V I L L E P O W E R A D M I N I S T R A T I O N

Proposed Whistling Ridge Wind Project  
"I'd like to tell you..."

1. Please have your environmental studies look at:

Nothing. I'm sure you study it to

death.

2. I need more information about:

Nothing except when can they start &

begin to deliver?

3. I have these other comments:

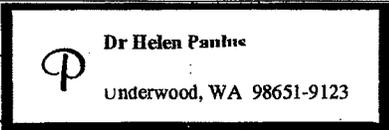
I am a resident of Underwood & have lived here for almost 50 years. I support this project totally. SDS has the money to do this project and the land & the ability to deliver this excellent project to supply clean renewable non-polluting energy sources. Prove it! It's an excellent site and a brilliant use of our land other than for recreational play. I am not related nor do I earn any income from SDS. I am just a conservative who believes this is a much needed project. I've traveled to Europe & seen the wind turbines in the most scenic spots & we need to get real about energy.  
Thank you.

Please put me on your project mailing list. (You are already on the mailing list if you have received mailed notices.)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_



Please mail your comments by **May 18, 2009**, to:  
BPA Public Relations, DKC-7, P.O. Box 14428  
Portland, OR 97293-4428

Proposed Whistling Ridge Wind Project

"I'd like to tell you..."

Received  
4/27/09

WRW090003

1. Please have your environmental studies look at:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

2. I need more information about:

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

3. I have these other comments:

Our home will be one of the closer homes to the Whistling Ridge Energy Project. My best estimate is within five miles.

We feel that this project will have little if any effect on our home as well as the surrounding area. Any positive returns from this project greatly outweigh any downside. We very much support this project.

Please put me on your project mailing list. (You are already on the mailing list if you have received mailed notices.)

Name: Jack Kopp

Address: \_\_\_\_\_

City: Underwood State: WA Zip: 98657

Please mail your comments by **May 18, 2009**, to:  
BPA Public Relations, DKC-7, P.O. Box 14428  
Portland, OR 97293-4428

B O N N E V I L L E P O W E R A D M I N I S T R A T I O N

Proposed Whistling Ridge Wind Project

"I'd like to tell you..."

WRW090004

Received  
4/27/09

1. Please have your environmental studies look at:

- Include inventory of traditional plants
- Assess impacts to all types of historic properties, including those of religious and cultural significance to Indian Tribes
- Analyze visual impacts

2. I need more information about:

- Plans for compliance with the NHPA

3. I have these other comments:

Please put me on your project mailing list. (You are already on the mailing list if you have received mailed notices.)

Name: Catherine Dickson, Principal Investigator, Cultural Resources Protection Program  
Conf. Tribes of the Umatilla Indian Reservation

Address: 1000000000

City: Pendleton

State: OR

Zip: 97801

Please mail your comments by May 18, 2009, to:  
BPA Public Relations, DKC-7, P.O. Box 14428  
Portland, OR 97293-4428

Proposed Whistling Ridge Wind Project  
"I'd like to tell you..."

Received  
4/28/09

WRW090005

1. Please have your environmental studies look at:

- Visual Impact to the SCENIC AREA
- Truck traffic impact on residential roads of Underwood
- Emergency vehicle access in Underwood during truck traffic
- Sitk & other large animal ~~to~~ movements over the "use" of turbines are in place. I believe this will endanger the agriculture & residences to the south.

2. I need more information about:

- Potential for Underwood to get cross connection to turbine substation in order to provide back up power source

3. I have these other comments:

- I don't want to see them from the scenic area viewpoints & <sup>byways</sup>
- I want trucks limited to weekdays, and not during commuting or school bus times
- I want emergency vehicles to be given priority on roads
- I want extra police enforcement for truck hours & speed & compression brake limits.

Please put me on your project mailing list. (You are already on the mailing list if you have received mailed notices.)

Name: Michael Eastwich

Address: 62 Peach Lane

City: Underwood State: WA Zip: 98651

Please mail your comments by May 18, 2009, to:  
BPA Public Relations, DKC-7, P.O. Box 14428  
Portland, OR 97293-4428

WRW090006

Received  
5/4/09

April 30, 2009

Bonneville Power Administration  
Public Affairs Office  
DKE 7  
PO BOX 14428  
Portland OR  
97293-4428

Re: Whistling Ridge Energy Project

Dear Public Affairs Officer:

I am writing to express my strong concern about the proposed Whistling Ridge Energy Project. While I support wind power development I believe the proposed location of this project would cause irreversible damage to the scenic beauty of the Columbia Gorge. The proposed giant windmills would dominate the Underwood, Bingen-White Salmon and Hood River viewing areas. As a nearby home owner, I am also concerned about the impact on the physical and emotional health of my family and neighbors of constant exposure to windmill noises and flashing strobe lights..

Wherever located, wind towers and their effects will be with us for a very long time. Massive 426 foot multi million dollar concrete structures aren't going to decay any time soon and they are unlikely to be willingly dismantled by their owners when our energy resource needs change. There are other sites within Washington and elsewhere where wind power is available. To irrevocably deface a national treasure such as the Gorge Scenic Area would be shortsighted and irresponsible.

Please stop the Whistling Ridge Energy Project or have it moved it to a suitable location.

Sincerely,

  
John Tyler

Underwood, Washington

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### Whistling Ridge Wind Interconnection Project - scoping

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Please see attached.

View Attachment

- WRW090008 - Glen Holmberg
- WRW090009 - Johnson Meninick/Yakama Nation Cultural Resources Program Manager
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## United States Department of the Interior

NATIONAL PARK SERVICE  
Pacific West Region  
909 First Avenue, Fifth Floor  
Seattle, Washington 98104-1060



IN REPLY REFER TO:  
ER 09/423

May 18, 2009

Bonneville Power Administration  
Public Affairs Office—DKC-7  
Attn: Andrew M. Montaña  
P.O. Box 14428  
Portland, OR 97293-4428  
[bpa.gov/comment](http://bpa.gov/comment)

Dear Mr. Montaña:

The National Park Service (NPS) has reviewed the Notice of Intent to prepare an Environmental Impact Statement (EIS), published in the Federal Register on April 21, 2009. The Bonneville Power Administration (BPA) and Washington Energy Facility Site Evaluation Council (EFSEC) will prepare a joint National Environmental Policy Act (NEPA)/State Environmental Policy Act (SEPA) EIS for a proposed 75 megawatt (MW) wind energy generation project to be located on 1,152 acres in Skamania County, Washington. The NPS has reviewed the Application for Site Certification Agreement (2009-01) (Application) submitted by WRE on March 10, 2009, and offers the following specific comments to the information and analysis provided therein.

The Whistling Ridge Energy (WRE) project is near the Columbia River corridor. While the NPS is supportive of the development of environmentally-sound, alternative energy technologies, we are concerned about the potential direct and cumulative effects of this renewable energy project on recreation and aesthetics in the Columbia River Gorge area.

On page 4.2-76, the Application states that “no national trails are within 5 miles of the proposed facility.” However, this statement is incorrect. Both the Lewis and Clark National Historic Trail and Oregon Pioneer National Historic Trail, administered by the NPS, pass through the Columbia River Gorge and are within 5 miles of the proposed facility. To provide more background on the national significance of these trails, historic travelers on these trails used both the river for downstream transportation and adjacent lands for eastward travel. When Congress designated these trails, it also authorized auto tour routes along Interstate 84 and Washington Route 14. The viewshed from both the river and auto tour routes is a critical part of the visitor experience. In addition to the national historic trails, the visual quality of the region is specifically protected by designation of the Columbia Gorge National Scenic Area (CGNSA) in 1986. These three national resources are independently significant, but the close proximity of all three to each other creates a unique recreational opportunity for visitors to the region. It is important for the NPS to ensure that the scenic and historic values of these areas

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IN AMERICA 

are preserved from gross alteration of the landscape and viewshed by large-scale industrial development.

Because the WRE project is proposed to be immediately adjacent to the CGNSA boundary, some, if not all, of the proposed 50-turbine project will be visible from within the CGNSA, as described in the visual analysis (Section 4.2) of the Application. About 400 acres of the proposed project (including turbine corridor A1-A7, which will be closest to the CGNSA boundary) are within areas zoned Resource Protection (For/Ag-20) and Residential 10 (R-10) under current Skamania County code. Construction of wind turbines in this area will require a conditional use permit from Skamania County, partially due to the fact that the proposed wind turbines are taller structures than currently allowed in these zones.

We disagree with the level of severity for view impacts suggested in the Application. First, the Application cites dated information regarding viewer perception. In 1987, a survey reported by Thayer and Freeman, reflected both positive and negative attitudes to wind generators, page 4.2-28. This information is inadequate, because at that time, the combined national capacity was less than 2,000 MW. As of 2006, capacity exceeded 12,000 MW, and has likely increased since then, especially given increased emphasis on renewable energy development at both the national and state levels. Moreover, since 1987, the size of turbine infrastructure has increased. Towers are now taller. With taller and more prolific wind turbines, the potential for negative impacts to viewsheds is greater.

Second, the actual size of a feature on the landscape is not the only component in considering viewshed impacts. The Columbia River Gorge area is significant because of the area's scenic and historic qualities. Man-made structures, especially when movement of a structure acts as an additional point of focus, depreciate the scenic and historical qualities that originally warranted national protection. We are concerned with the cumulative impacts to the viewshed resulting from numerous uniform wind turbines extending beyond the horizon line within an open, natural landscape.

We also note that the Application did not adequately cover all of the important viewpoints that should be considered. The Draft EIS should include all of the local Key Viewing Areas identified within the CGNSA, as well as address key viewpoints from the Columbia River that may be potentially impacted. Linear viewpoints from the designated scenic drives and auto tour routes should also be fully considered in the Draft EIS.

The methods used for the visual analysis (Section 4.2) were unclear in some respects. It was not disclosed what heights were used for turbines in generating the simulated scenes, and whether those were placed in the photos by the analytical software or within a photo editing program. Photos used for simulation should not include cloudy or hazy conditions; a clear, blue sky will better illustrate the extremes of contrast between towers and the background.

On page 4.2-66, a footnote in the Application states, "Additionally, for reasons related to commercial viability and engineering feasibility, the project is proposed as an integrated whole, not a series of separate components where parts of the whole may be removed due to subjective, perceived visual effects." The NPS disagrees with this characterization of visual

effects, as the statement appears to suggest that because assessment of visual resources can be a fluid process, it lacks any objectivity or reliability, and is therefore less meritorious when weighed against the concreteness of engineering feasibility and the economics of commercial viability. Impacts to views are not purely subjective and are not merely "perceived," but can be agreed upon and very real. We believe it is clear, even at this early stage, that visual impacts to the CGNSA and the national historic trails will degrade the core scenic and historic landscape values of these resources. We strongly recommend at minimum removing turbine corridor A1-A7 from further project consideration. This would help reduce the impact to visual resources within the CGNSA and along the national historic trails.

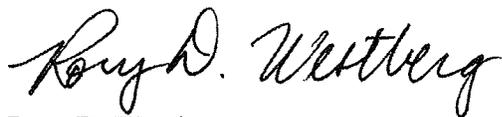
There are certain advantages for developing a wind farm at the proposed location. Natural and cultural resource surveys suggest that few negative impacts are likely to result from the proposed project. Most of the property will remain in commercial forestry operations. Access to BPA transmission lines obviates new line siting and construction. The potential enhancement to local employment and property tax revenues, while small, are still important in this economically depressed county.

Slightly decreasing the total turbines through removing turbine corridor A1-A7 of the proposed project will likely not hinder its viability while alleviating some of the negative visual impacts.

The NPS anticipates having further comments as the NEPA/SEPA process proceeds for the Whistling Ridge Energy project. If you have any questions, please contact:

Dan Wiley  
Chief Integrated Resource Stewardship  
Lewis and Clark National Historic Trail  
601 Riverfront Drive  
Omaha, NE 68102  
(402) 661-1830  
Dan\_Wiley@nps.gov

Sincerely,



Rory D. Westberg  
Deputy Regional Director, Planning and Resource Management

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No comment attached.
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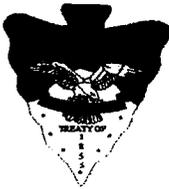
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Received  
5/18/09

WRW090009



Confederated Tribes and Bands of the Yakama Nation  
Established by the Treaty of June 9, 1855

Post Office Box 151  
Toppenish Washington 98948

Bonneville Power Administration  
Public Affairs Office—DKE-7  
P.O. Box 14428  
Portland, Oregon 97293-4428

May 13, 2009

RE: KEC-4, Whistling Ridge Energy Project

Thank you for contacting the Confederated Tribes and Bands of the Yakama Nation requesting comment during the scoping period of the Whistling Ridge Energy Project EIS. The location of the project falls within the Ceded Lands of the Yakama Nation, the legal rights to which were established by the Treaty of 1855, between the Yakama Nation and the United States Government. This Treaty defined the Ceded Lands as the usual and accustomed areas, utilized by the ancestors of the Yakama People for gathering foods and medicines, as well as for ceremonial purposes. Today, these lands and their resources continue to play a central role in the practice of traditional lifeways for members of the Yakama Nation, and will continue to do so in the future.

The proposed project location is in close proximity to Little Buck Creek as well as numerous archaeological, traditional, and sacred sites. Given this, there exists a heightened potential to encounter cultural resources at the project location. We request that an extensive cultural resources survey be conducted during the EIS process and should include, but not necessarily be limited to, an archaeological survey, identification of traditional-subsistence, medicinal, and culturally important plants, and identification of Yakama Nation Traditional Cultural Properties.

Many archaeological surveys conducted on previous projects have focused on site integrity and eligibility based upon the scientific data the sites may yield (National Register of Historic Places, Criterion D). Furthermore, mitigation measures often include, or are limited to data recovery and excavation. It must be remembered, however, that data recovery is the interest of science only, and does not serve the interest of the Yakama Nation. Therefore, archaeological site value and appropriate mitigation measures must not only be determined on a scientific level, but also on a cultural level. Archaeological sites have deep meaning and cultural value to the Yakama People, and it is not uncommon for sites to have strong associations with events and people significant to Native American history and legends (National Register of Historic Places, Criterion A & B).

We further suggest the use of Yakama Nation Cultural Resources Program staff in identifying the above mentioned cultural resources. Yakama Nation maintains a well qualified staff that possesses inherent knowledge regarding the identification, proper treatment, and protection of Yakama Nation cultural resources.

Sincerely,

Johnson Meninick,  
Yakama Nation Cultural Resources Program Manager

CC: Kate Valdez, Yakama Nation Tribal Historic Preservation Officer



**Memorandum**

**To:** Robert Newquist, Yakama Nation Police  
**From:** Johnson Meninick, CRP Manager  
**Subject:** Cost estimate for YN boat

---

The Cultural Resources Program staff is currently working on cost estimates for conducting an inventory and monitoring of traditional cultural properties on the John Day and Dalles Pools.

We would like to use a Yakama Nation boat and operator for the fieldwork. What are the cost estimates for the mileage/time rate for your boat and the hourly rate for an operator? The boat will also need to be towed to the boat launch, if this costs more than \$0.585/mile, please let us know.

Your assistance will be greatly appreciated.

Thank you.

Received 5/18/09

WR1090010

# FRIENDS OF THE COLUMBIA GORGE

VIA E-MAIL AND FIRST-CLASS MAIL

May 18, 2009

Allen J. Fiksdal, EFSEC Manager  
Energy Facility Site Evaluation Council  
P.O. Box 43172  
905 Plum St. SE  
Olympia, WA 98504-3172

**Re: SEPA & NEPA Scoping for the Proposed Whistling Ridge Energy Project –  
Application No. 2009-01**

Dear Mr. Fiksdal:

Friends of the Columbia Gorge has reviewed the above-referenced proposal and would like to provide the following scoping comments pursuant to SEPA and NEPA. Friends is a non-profit organization with approximately 5,000 members dedicated to protecting and enhancing the resources of the Columbia River Gorge. Our membership includes hundreds of citizens who reside within the Columbia River Gorge National Scenic Area.

**1. The environmental impacts of the full project must be reviewed now.**

EFSEC and the BPA are mandated to thoroughly review the environmental impacts of this project at the earliest possible stage, which is now. Lead agencies must prepare an environmental impact statement “at the earliest possible point in the planning and decision-making process, when the principal features of a proposal and its environmental impacts can be reasonably identified.” WAC 197-11-055(2). “The fact that proposals may require future agency approvals or environmental review shall not preclude current consideration, as long as proposed future activities are specific enough to allow some evaluation of their probable environmental impacts.” *Id.* 197-11-055(2)(a)(i).

This matter involves a proposal by SDS Company to develop a large-scale industrial wind energy facility containing approximately 84 wind turbines. As depicted on a site map prepared by SDS, approximately 35 of the turbines would be located on DNR lands in Klickitat County, and approximately 49 turbines would be located on adjacent private lands in Skamania County. Ex. B. Although the applicant’s map depicts 84 specific turbine locations, the applicant

also proposes to determine "final" locations for both the Skamania and Klickitat portions later. Ex. A; EFSEC Application at 2.1-1.

SDS applied for the Klickitat turbines first. On December 4, 2008 SDS filed an application with the DNR proposing "development . . . of approximately 35 turbine locations" on DNR land. Ex. A.

More than three months later, on March 10, 2009, SDS applied for the Skamania portion, by filing an application with EFSEC for "up to 50 wind turbines." EFSEC Application at 2.3-3.

The entire project, previously called the "Saddleback" wind project, is now called the "Whistling Ridge" project. The SDS-generated map shows that more than 40 of the turbines would be sited in a single, lengthy array along Whistling Ridge. Ex. B. (The EFSEC application refers to the Skamania portion of this array as the "B" array.) The map also shows that SDS proposes connecting the full project to the BPA electricity transmission grid. Ex. B.

As further evidence that SDS proposes a single project with 84 wind turbines in two counties, Friends submits the three enclosed newspaper articles. Exs. C, D, & E. All three articles refer to the 84-turbine proposal as a single project. SDS President Jason Spadaro was interviewed for all three articles. To our knowledge, SDS did not request any corrections to these articles or otherwise respond to them. In fact, SDS has placed one of these articles on its Whistling Ridge project web site. "SDS eyes expanded wind power project," available at [http://whistlingridgeenergy.com/site/wp-content/uploads/2009/03/enterprise\\_021809.pdf](http://whistlingridgeenergy.com/site/wp-content/uploads/2009/03/enterprise_021809.pdf) (last visited May 16, 2009). In that article, Mr. Spadaro states that proposing all 84 turbines now "gives [SDS] more flexibility," which in turn allows the company to "optimize the site and minimize impacts." Ex. D at 2.

Despite this pronouncement, SDS's application to EFSEC never once mentions the 35 turbine sites proposed in Klickitat County, even though those turbines were applied for first. It appears that SDS is attempting to piecemeal the project and avoid full environmental review of the entire project now. This approach is unacceptable and in violation of SEPA.

The nature, scope, and potential environmental impacts of the Whistling Ridge project are sufficiently apparent to trigger preparation of an EIS for the entire 84-turbine wind project now. The EIS must evaluate the likely environmental effects of the full project, including development of the entire wind facility and the various alternatives that might address environmental concerns. Failure to do so violates SEPA's mandate to consider environmental impacts and alternatives at the earliest possible time.

As noted above, SEPA requires a comprehensive environmental review at the earliest possible stage. An environmental impact statement must "be prepared prior to the first government authorization of any part of a project or series of projects which, when considered cumulatively, constitute a major action 'significantly affecting the quality of the environment.'" *Juanita Bay Valley Community Ass'n v. City of Kirkland*, 9 Wn. App. 59, 72-73, 510 P.2d 1140 (1973) (quoting RCW 43.21C.030(2)(c)).

By failing to even mention the Klickitat portions of the project, the applicant is asking EFSEC to improperly segment the project into multiple pieces. SEPA prohibits a project from being artificially segmented into different components to avoid comprehensive environmental review. See *Merkel v. Port of Brownsville*, 8 Wn. App. 844, 850–51, 509 P. 2d 390, 395 (1973). All phases and portions of a project must be evaluated at the outset. *Id.*; see also *Indian Trail Property Owner's Ass'n v. City of Spokane*, 76 Wn. App. 430, 443, 886 P.2d 209 (Wn. App. 1994).

The applicant's apparent proposal to examine only the Skamania portion of the project would directly contradict one of the central purposes of SEPA, which is "to avoid the adverse impact upon the environment which takes place when various phases of a project, or a series of projects, are authorized by governmental agencies in a piecemeal fashion without regard to the cumulative impacts of the total development." *Juanita Bay*, 9 Wn. App. at 72 (citing *Merkel; Greene County Planning Bd. v. Fed. Power Comm'n*, 455 F.2d 412 (2d. Cir. 1972)). Dividing a project into segments for the purposes of SEPA review is prohibited because the piecemeal administrative approvals that result from such segmentation frustrates the vitality of SEPA. *Merkel*, 8 Wn. App. at 850–51.

In sum, the EIS must review the entire 84-turbine project—including all of its component parts and various alternatives to those parts. EFSEC cannot make an informed decision on this proposal until the full project and its impacts are reviewed.

**2. The EIS must evaluate a range of alternatives sufficient to avoid resource impacts and conflicts with applicable laws.**

The analysis of alternatives is considered the "heart" of an EIS. 40 C.F.R. § 1502.14. Here, the EIS must evaluate a range of alternatives sufficient to avoid resource impacts and conflicts with applicable laws.

The applicant has publicly stated that it has proposed all 84 turbines now in order to give it "more flexibility" in "optimiz[ing] the site and minimiz[ing] impacts." Ex. D at 2. In accordance with this statement and with SEPA, the alternatives analysis must evaluate the full 84-turbine project, as well as various alternatives to the project.

For example, the EIS should quantify how many of the 84 turbines are proposed within a designated Spotted Owl Special Emphasis Area ("SOSEA"), and should evaluate one or more alternatives that would remove these turbines from the SOSEA.

Similarly, the EIS should consider one or more alternatives that would move or eliminate all turbines visible from designated key viewing areas within the Columbia River Gorge National Scenic Area. Such an alternative was recommended by the National Scenic Area office of the Forest Service in its May 6, 2009 letter to EFSEC.

Finally, the EIS should consider one or more alternatives that would remove all portions of the project from the General Management Area of the National Scenic Area, where the project is prohibited by law. SCC § 22.10.020(A); 16 U.S.C. § 544d(d)(6).

**3. A number of defects in the application must be cured.**

In a number of respects, the application fails to provide information about the project sufficient to evaluate its environmental impacts.

For example, the application discusses two alternative road configurations within the National Scenic Area (Application at 2.19-3), but evaluates only one of them (Route 2) with any detail. The application also fails to explain whether either of these alternatives would require the condemnation of any private land along the roadways and intersections in order to provide sufficient width and turning radius for hauling the turbine components. The applicant's Pavement Engineering Report contains little to no information about the existing pavement and base thickness along the haul route, as well as the existing average daily traffic volumes along the haul route. The application fails to state an upper limit for vehicle weight, and merely states that many of the vehicles will exceed the WSDOT legal load limit of 52.75 tons. EFSEC Application at 4.3-37. Finally, the application also fails to provide sufficient data regarding the number of vehicular trips likely to result from the project, especially during the construction phase. All of this information must be made available prior to, and evaluated in, the EIS.

The application also proposes a new electrical substation and interconnection tower located immediately outside the boundary of the National Scenic Area, yet provides little to no detail about these components of the project, such as their proposed heights, footprints, exterior colors, and potential visibility from key viewing areas within the National Scenic Area.

The studies for vegetation and rare plants included in the application were conducted six years ago and are no longer valid. Moreover, these studies were apparently never finished. Appendix B-1 is expressly labeled as a "draft," and all of the figures are missing from both of these Appendices. The missing figures would have depicted, among other things, the geographic areas that were studied for occurrences of rare and sensitive plants. This is crucial information, given that the studies were apparently conducted for a previous project configuration that included DNR lands in Skamania County, and thus likely contained different lands than the current project. The applicant should be required to conduct current vegetation and rare plant studies specific to this project.

**4. The proposal is likely to have significant adverse effects to air quality.**

The applicant proposes to haul tens thousands of tons of construction materials and turbine components through the Columbia River Gorge National Scenic Area. The application contains little to no information about the number of vehicular trips likely to result from the project during the construction phase. The application does state that more than 500 heavy haul truck trips would be required "for the towers only," but does not clarify whether this figure includes the blades, and does not provide trip numbers for hauling construction materials and equipment, warning cars accompanying heavy haul trucks, and construction workers' vehicles. Nor does the application provide any data regarding the number and frequency of proposed barge trips, which appears to be the applicant's preferred method of transport to, and through a portion of, the National Scenic Area.

The EIS must review the air quality impacts of transporting and hauling turbine components and construction materials from the location(s) at which they would be constructed to the construction sites. This may include international trips if the turbines would be manufactured abroad. Under SEPA, the regional scope of environmental impacts is to be broad:

In assessing the significance of an impact, a lead agency shall not limit its consideration of a proposal's impacts only to those aspects within its jurisdiction, including local or state boundaries.

WAC 197-11-060(4)(b).

Without definitive numbers of barge, truck, and/or rail trips, it is impossible to conclude with any certainty the exact environmental impacts these trips would produce. However, given the scope of this project, it is likely that the air pollution created by this project would have a significant adverse impact on the environment.

The environmental analysis of the proposal must in particular focus on the air emissions of the tugboats used for hauling the barges. A 2008 joint study by the National Oceanic and Atmospheric Administration and the University of Colorado found tugboat emissions to be the worst among sea-faring vessels in terms of soot emissions. *See* NOAA, NOAA Takes First Broad Look at Soot from Ships, [http://www.noaanews.noaa.gov/stories2008/20080709\\_soot.html](http://www.noaanews.noaa.gov/stories2008/20080709_soot.html) (July 9, 2008) (hereinafter "2008 NOAA Study").

Soot, or black carbon, is an environmental hazard for at least two reasons. First, soot is particulate matter. The small particles in soot pose serious health risks because they "easily reach the deepest recesses of the lungs." EPA, Health and Environmental Effects of Particulate Matter: Fact Sheet, <http://www.epa.gov/ttn/oarpg/naaqsfm/pmhealth.html> (July 17, 1997). Tugboats have "a disproportionate impact on air quality because they travel within ports, emitting potentially harmful particles near populous urban areas." 2008 NOAA Study. Similarly, the continuous addition of tugboat soot along the Columbia River could prove very harmful to the many population centers along the River. The environmental analysis must consider the cumulative effects of the emissions from barge transport already occurring on the Columbia River, as well as the individual impacts from this proposal.

Second, soot is a major contributor to global warming. Although there is still some uncertainty, a recent New York Times article cites reports that black carbon is the number two contributor to global temperature rises, responsible for 18% of the planet's warming. Elizabeth Rosenthal, *Third-World Stove Soot is Target in Climate Fight*, N.Y. TIMES (Apr. 15, 2009), available at <http://www.nytimes.com/2009/04/16/science/earth/16degrees.html>. Recent professional conclusions suggest that a SEPA analysis must consider climate change effects. As the SEPA Working Group for the Climate Advisory Team recently noted in an outline of its goals: "While not completely certain, the Department of Ecology believes, and the co-chairs of this SEPA IWG concur, that SEPA already requires an assessment of a proposal's potential impact on climate change." SEPA Implementation Working Group, Scope of Work, Approach, and Schedule,

[http://www.ecy.wa.gov/climatechange/2008CATdocs/IWG/sepa/052808\\_sepa\\_scope.pdf](http://www.ecy.wa.gov/climatechange/2008CATdocs/IWG/sepa/052808_sepa_scope.pdf) at 1. Because of the considerable impact that soot has on climate change, and the large scope of this project, a thorough analysis of these impacts must be conducted.

Without a thorough analysis of the types of transport methods to be used, the exact number of proposed trips, and the potential impacts of air emissions, this project should not go forward. Also, considering that all emissions from the project would be new emissions, alternatives must be considered that would reduce the impacts of emissions on the environment.

In particular, air quality within the Columbia River Gorge National Scenic Area is likely to be significantly adversely affected by this proposal. Air quality is already significantly deteriorated in the National Scenic Area, and even incremental increases in pollution are likely to significantly exacerbate existing trends.

Gorge air quality has been monitored for approximately twenty years. The U.S. Forest Service has documented that visibility impairment occurs more than 95% of the time. The Forest Service has also documented that terrestrial ecosystems are being affected by high concentrations of sulfur and nitrogen compounds and that acid deposition may be adversely affecting cultural resources in the Gorge.

A Forest Service fog water deposition study showed that high levels of acid rain are already occurring in the Columbia River Gorge. Fog and rain in the Gorge is 10 to 30 times more acidic than usual Northwest rainfall. The Gorge now stands among the most polluted places in the country, including Pittsburgh and Los Angeles. The study concluded that ecosystem harm is already occurring, the eastern Gorge is considerably more polluted than was predicted from lichen studies, and detrimental effects of acid deposition on archaeological resources is a significant concern.

The Forest Service has also performed water quality and lichen studies in the Gorge. The water quality study found relatively high concentrations of fluoride, ammonium, potassium, and sulfate at Warren Lake, adjacent to the Columbia Gorge at an elevation of 3732 feet. The lichen study had similar results. Based on these two studies, the Forest Service concluded that the Gorge has probably experienced episodic fluoride exposure, most likely in combination with gaseous sulfur dioxide. The study found that the sulfur and nitrogen are coming from a number of different emission sources and fluoride is most likely coming from aluminum smelters.

Another study by the Forest Service Air Quality Management Staff was based on pollution concentrations at air quality monitoring stations at Wishram and Mount Zion. The study determined that visibility impairment in these two locations is perceptible 95% of the time; obvious 42% and 64% of the time, respectively; and severe 15% and 14% of the time, respectively.

According to another Forest Service study, visibility impairment has continued to worsen since 2000. At the Wishram monitoring station, the number of days that visibility is moderately degraded increased from 42% to 57% between 2000 and 2005. The number of days that visibility impairment is perceptible increased to almost 100%.

The Forest Service studies demonstrate that air quality and visibility are already degraded in the Scenic Area to the point of adversely affecting scenic, natural, and potentially cultural and recreation resources. (If EFSEC or the applicant would like copies of any of these studies, Friends would be happy to provide them.) The applicant must analyze the impacts of further increases in air pollution in the National Scenic Area.

**5. The proposal is likely to pose a significant fire risk.**

The application provides insufficient information about the risk of fire and explosion, the environmental consequences that would flow from such an occurrence, and the applicant's plans to prevent and respond to such an occurrence. This is the first wind energy facility proposed on forested lands in the Pacific Northwest. Thus, the risk of catastrophic fire for this project is significantly greater than other regions where wind energy systems have been sited in the past. In addition, the proximity of the proposed wind facility to existing BPA lines increases the risk that a fire at the site would interfere with the transmission of electricity.

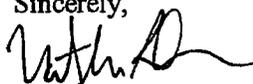
The application downplays the risk of fire, not acknowledging that wind energy fires are a very real occurrence. Attached as Exhibits F through H are three newspaper articles about three different wind energy fires over the past three years (two in Australia, one in Nebraska). These are only three of the many fires that have occurred in the recent past.

Also attached as Exhibit I is an October 9, 2008 letter from Skamania County Fire District No. 4 to the Skamania County Commissioners expressing concerns about allowing large-scale wind energy systems on forested lands in the County. Although the proposed facility is not located within the boundaries of Fire District No. 4, the same types of concerns identified in this letter would be presented at the project site.

**6. Conclusion**

Given the magnitude of the environmental impacts posed by this project, it is essential for EFSEC and the public to fully understand the harms that may result from the project and to have the ability to review possible alternatives that might reduce environmental impacts. Please continue to keep Friends of the Columbia Gorge notified in this matter, including notice of any opportunities to comment and notice of any governmental decisions and actions. Thank you for the opportunity to comment, which preserves our standing.

Sincerely,



Nathan Baker  
Staff Attorney

cc: Andrew M. Montañño, BPA  
Bruce Marvin, Counsel for the Environment

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

APPLICATION TO LEASE STATE LAND FOR WIND POWER

NOTE TO APPLICANT: The Department of Natural Resources' consideration of the application includes a field inspection and an administrative review to determine the impact the request will have on the management of the lands involved and to determine if the request is in accordance with the statutes of the State of Washington.

To the Commissioner of Public Lands, Olympia, Washington 98504:

1. The undersigned, SDS Company, LLC, hereby apply to lease land at the following legal description Section 29, 30, 31, 32, Township 4N, Range 10, East in Skamania County, Washington.

List any additional sections, or more specific legal description:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name of Proposed Wind Power Development: Saddleback Wind Project

2. Enclose a \$25.00 application fee. Applications from public agencies do not require an application fee. All remittances are made to the Department of Natural Resources.

3. General description of the proposed development including number and general location of turbines and met towers (use separate sheet if necessary).  
This development is intended to be an expansion of a project to be built entirely on land controlled by SDS Lumber Company. The proposed development on the DNR land will consist of approximately 35 turbine locations (this is subject to change depending on the turbine model selected for the project) and two met towers. The met towers will be erected first and will be used to determine the final turbine placement and help select the turbine choice for the project. Attached is a drawing of the proposed project area.

Are there trees to be removed in the lease area?  Yes  No

Trees that are to be removed must be physically marked or otherwise identified on the ground.

4. Access Road:  
Use existing road?  Yes  No

Construct new road?  Yes  No Attach map Shown on attached page

The width of the proposed road will be 45 feet during construction and reduced to 20 feet after construction.  
The centerline of the proposed road must be physically marked on the ground.

Are there trees in the new access road?  Yes  No

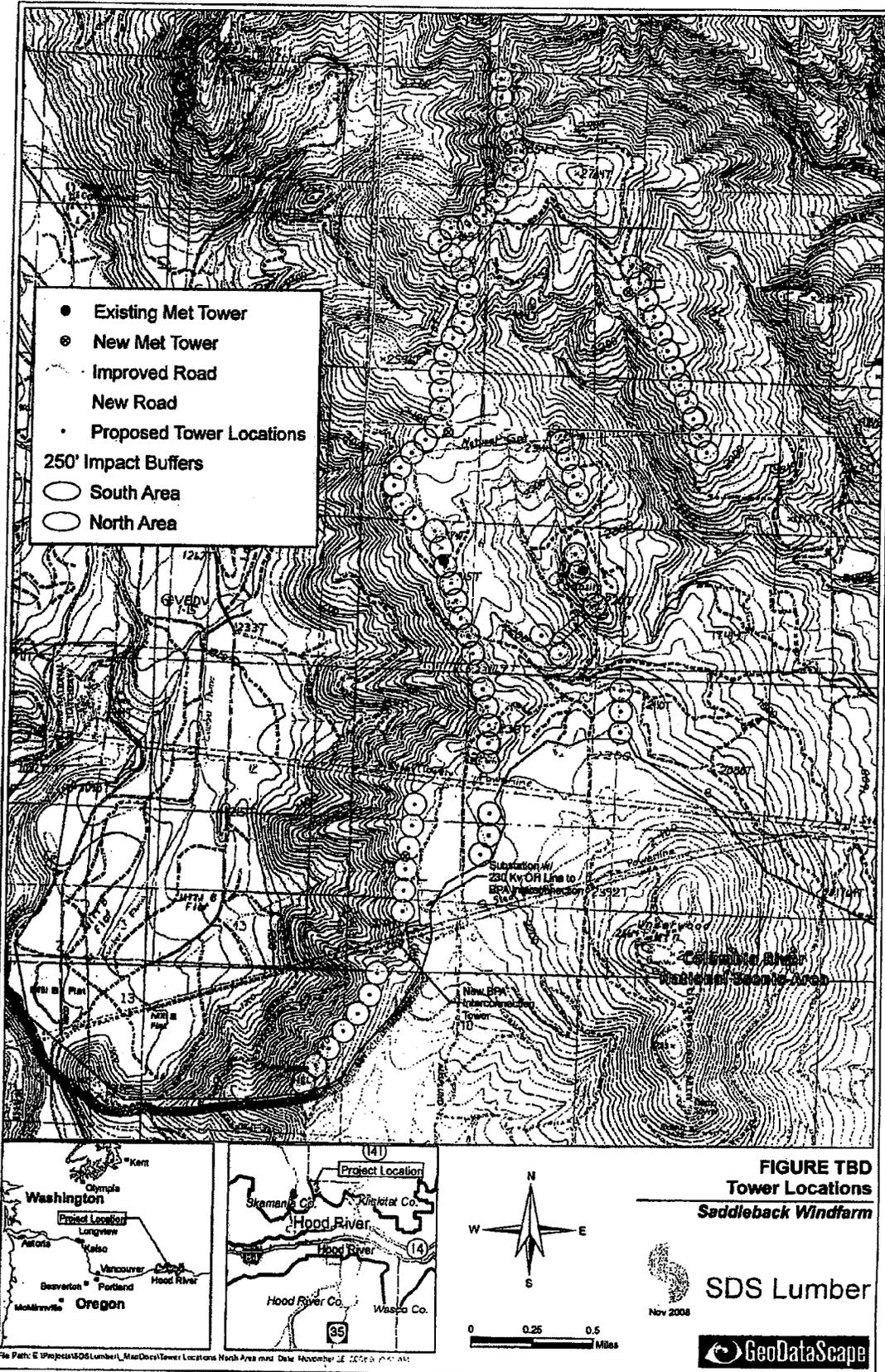
5. Do you have any other leases with the Department of Natural Resources?  Yes  No  
If Yes, please list project name & lease number? \_\_\_\_\_

6. This lease is requested for 30 years. (30 years is standard)

Dated at Bingen, Washington, this 4 day of December, 2008

FOR DEPARTMENT USE  
Amount received: \$ \_\_\_\_\_  
Refer to Application No. \_\_\_\_\_

Signature [Signature]  
Print Name SDS LBR Co  
JASON SPADARO  
Address PO BOX 206  
BINGEN, WA 98605  
Phone No. 509 493-2155  
UBI No. \_\_\_\_\_



**FIGURE TBD**  
**Tower Locations**  
**Saddleback Windfarm**

Nov 2008

**GeoDataScape**

<http://www.columbian.com/article/20090205/NEWS02/702059937>

## **16 bills seek to amend alternative-energy initiative approved by voters**

Wednesday, February 4, 2009  
**BY KATHIE DURBIN**  
**COLUMBIAN STAFF WRITER**

Renewable energy has muscled its way onto the 2009 Legislature's agenda.

As of Wednesday, lawmakers had introduced 16 bills to amend Initiative 937, the voter-approved 2006 measure that requires utilities to ramp up their purchase of solar, wind and geothermal energy beginning in 2012.

The reason for the intense interest: This is the first session since its passage that the law can be amended by a simple majority vote.

Under the Energy Independence Act, every Washington electric utility serving at least 25,000 customers must use renewable energy to meet at least 3 percent of its energy load by 2012, at least 9 percent by 2016, and at least 15 percent by 2020.

The law defines "eligible renewable resources" as wind, solar, geothermal, landfill and sewage gases, wave and tidal power, and certain kinds of biomass and biodiesel fuels. The law also requires utilities to meet specific energy conservation targets beginning in 2010.

Clark Public Utilities weighed in at a Senate committee hearing Wednesday in favor of language in a bill sponsored by Sen. Chris Marr, D-Spokane. Senate Bill 5840 would allow utilities to count conservation efforts toward meeting their renewable energy targets before they are forced to turn to the purchase of renewable energy or energy credits. A House bill introduced by Rep. Jaime Herrera, R-Ridgefield, would accomplish the same thing.

"We are advocating that we should first use conservation and then go to additional generation," utility spokesman Dean Sutherland said. As it is now written, he said, "The initiative pushes you toward generation."

The change could save Clark ratepayers \$59 million by 2028, Sutherland said.

The utility also favors a change in the Senate bill that would permit utilities to buy renewable power from throughout the Western United States and Canada, instead of limiting their purchases to the Pacific Northwest.

That would make it possible to buy reliable solar energy from California and to purchase abundant wind energy from Montana in the winter, when it's scarce in the Northwest, Sutherland said.

Those changes are modest compared to others.

Some bills would let utilities count hydroelectric power and the burning of construction debris, food waste and wood waste products toward meeting their goals.

Some would push back the retroactive date for counting renewable energy purchases from 1999 to 1995.

A bill introduced by Sen. Jim Honeyford, R-Sunnyside, and co-sponsored by six other Republicans, would count all hydroelectric generation in the Pacific Northwest as a renewable energy resource that utilities could count toward meeting their goal.

On average, hydro makes up 50 percent of the Northwest's energy generating capacity.

"The cumulative effect of all the weakening amendments would be that the 2020 standard has already been met and thus nothing needs to be done," said Marc Krasnowsky, communications director for the Northwest Energy Coalition.

"We're talking about building our energy future," Krasnowsky said. "Making the hydro system more efficient is great, but we need to diversify and we need to build a market for new renewables. Hydro isn't going to get us there. The choice is between new non-hydro renewables and fossil fuels."

Initiative 937 is the cornerstone of the state's strategy to reduce greenhouse gas emissions, yet Oregon, California and Idaho all have adopted stricter renewable energy targets than Washington in the past three years, Krasnowsky said.

The renewable energy law has been a boon to the Port of Vancouver, one of the top importers of wind turbines on the West Coast. In a business roundtable with Gov. Chris Gregoire last week, Roby Roberts of Vesta America Wind Technology, which manufactures giant wind turbines, urged the governor to protect the law.

"We're in 63 countries, and this is one of the best ports in the world for us," Roberts said. "One of the things to keep the momentum going is to make sure I-937 is not changed."

The port is scheduled to announce a new cargo-handling agreement today.

In the Columbia River Gorge, SDS Lumber Co. President Jason Spadaro is counting on the law to create a strong demand for wind energy as he moves forward with proposal to develop a wind farm on the company's property and adjacent state trust land.

Kathie Durbin: 360-735-4523 or [kathie.durbin@columbian.com](mailto:kathie.durbin@columbian.com).



# The Enterprise

## **SDS eyes expanded wind power project 30 additional turbines possible on DNR land**

By Jesse Burkhardt

February 19, 2009

Although its original proposal to site 42 wind power turbines in eastern Skamania County remains on hold pending the outcome of an appeal, SDS Lumber Co. is considering expanding the scope of its renewable energy project.

SDS President Jason Spadaro said SDS may want to add more wind turbines on Whistling Ridge, north of the original proposal's boundaries. The expansion would be onto Washington Department of Natural Resources (DNR) property and within Klickitat County.

"We could site 30 additional turbines on DNR land if studies prove it's viable," Spadaro said.

Spadaro said no decisions have been made, and there has been no official filing.

"All we've done is apply for the right to study the property," Spadaro explained. "It is potentially a 'phase two' for wind power development, but we still have to do wildlife studies, a wind study, review the topography, and then apply to lease DNR property. We still would need a DNR review, environmental review, the EIS, public meetings -- the entire public process."

DNR is now determining whether to allow SDS to study the site for possible wind power development. A DNR comment period regarding the idea closed on Feb. 10, but Spadaro said he had no idea how long the DNR decision process would take.

"DNR is considering leasing four Common School Trust parcels totaling approximately 2,560 acres for wind power development in western Klickitat County," read an excerpt from a Jan. 12 DNR document regarding the inquiry from SDS. "It is possible that these parcels may be incorporated into a larger surrounding wind power project."

"We just want to study it, and it's smart for DNR to allow it," Spadaro said. "This would diversify the revenue source for schools, diversify the tax base, and diversify energy sources."

According to Spadaro, the Whistling Ridge site is ideal for wind power development. He explained that Underwood Mountain works like a "wind dam," with the wind flowing like water around Underwood Mountain.

"It creates a funnel where the wind flows. that's why the site is so windy," Spadaro said. "The other reason why the site works so well is because there is a regional BPA transmission system coming through the area. We can connect right onto it."

Spadaro added that a larger project makes it more viable economically.

"It also gives us more flexibility. If we have more flexibility, we can use that to optimize the site and minimize impacts," Spadaro said.

Some residents have been outspoken in opposition to the siting of wind power turbines in the area. One of those alarmed about the possibility is Ruth Dye of Underwood.

"This severely impacts my life, as I live just south of where this project is planned," said Dye.

Dye pointed out that there could be serious restrictions on public access if the DNR allows wind power development in the area.

"If this project goes forward, we will be locked out of access to this public land," Dye said. "If you hunt, fish, ride a mountain bike, ride a horse, or just enjoy a walk in the woods, sorry, but you will not be allowed to use this area any more."

Dye also expressed concern about impacts on water quality.

"There are three streams in the proposed wind farm area," Dye explained. "These feed the White Salmon, Little White Salmon, and eventually the Columbia River. This watershed will be disturbed. Chemicals to control noxious weeds may be used. If you kayak, windsurf, kiteboard, fish, swim, or use downstream water, you might want to think about the impact of this wind farm on you."

According to Dye, the area in question also has been designated by DNR as a "Northern Spotted Owl Conservation Area," and pointed out that the proposed wind farm could harm owl habitat and other wildlife as well.

"The area has been determined to be a conservation area for the spotted owl, but how will they make good on the losses to the owl or the other species in this area?" Dye questioned.

Spadaro said he thought it was unfortunate that even at this informational-gathering stage, opponents have been attacking the concept.

"There are certain people on almost every project who say they are for renewable, green power, but then come out and say, 'I like it, except anywhere near me,'" Spadaro said.

Spadaro debunked claims that the wind turbines would be within the White Salmon watershed.

"It's not even close to Buck Creek," he said.

The move to develop energy sources is part of a long-range strategy by SDS as it moves to diversify beyond being primarily a wood products company.

"This is another revenue source," Spadaro said. "No one knows when the demand for housing will improve, but there is always growing demand for energy. This helps us diversify."

Spadaro pointed out that the state of Washington has mandated that at least 15 percent of the energy used in the state must come from renewable sources by 2020.

"If we're going to meet renewable energy requirements, that energy is not all going to come from eastern Washington," Spadaro commented. "And the federal economic stimulus plan is based in large part on developing new renewable energy sources. That's a big deal. That demand has to be met somewhere."

Spadaro also sounded a geo-political warning about the consequences of failure to develop innovative sources of energy.

"We can either participate in it," he said, "or forget about clean energy and about independence from foreign oil."

Wind farm

### Wind farm project may expand

Company wants to lease state trust land in the Columbia River Gorge

By Kathie Durbin

Columbian staff writer

A Bingen-based company that hopes to build a 70-megawatt wind farm on a backcountry ridge near Underwood has asked the state to explore the expansion of the project north onto 2,560 acres of state trust land.

The Saddleback Wind Project would rise on logged-over industrial lands behind Underwood Mountain, just outside the north boundary of the Columbia River Gorge National Scenic Area.

The original proposal by SDS Lumber Co. called for installing 42 wind turbines along a roughly north-south alignment on its land in eastern Skamania County to harness the gusts that blow through the Columbia River Gorge.

That proposal is on hold pending appeal of a zoning ordinance that would set standards for wind projects in all of Skamania County.

Last spring, the company approached the Washington Department of Natural Resources about leasing state trust land to the north so it could build a larger and more profitable project.

The DNR land the company wants to lease is in western Klickitat County, which already has a zoning ordinance that fast-tracks siting of wind farms and other energy projects.

SDS Lumber President Jason Spadaro said it just makes sense to expand north if the wind generation potential is there.

"The project that we have now is on the small end of wind projects," he said. "Because of that, I don't have a lot of flexibility. I need to maintain every potential turbine in order to keep the size of the project where it works. The more megawatts you put through, the more viable the project is."

Under the proposed expansion, SDS would pay to build roads, collectors and other infrastructure necessary to provide access to the remote site and feed power generated by the wind turbines into the electrical grid.

"We would extend the road system we are already going to build," Spadaro said. "There is a tremendous amount of synergy between the two properties."

DNR officials said they would enter into a lease arrangement only if it yields revenue for the common school fund.

"Otherwise we wouldn't do it," said DNR regional manager Bill Boyum. "It has to be a good investment on the part of the state."

The DNR has approved other leases for wind projects east of the Cascades, such as the Wildhorse Project east of Ellensburg, where 34 wind towers generate power on state trust land. "We turned \$500,000 last year" from that project, Boyum said. "That all goes into the common school fund."

The DNR has received about 20 comments on an environmental assessment of the proposed lease. The deadline for comments to the agency's Ellensburg office is Feb. 10.

EXHIBIT     E      
PAGE     1     OF     2

Boyum said if the state does eventually agree to lease the land for wind turbines, that phase of the project would be subject to a full environmental review by Klickitat County.

But critics say the DNR is trying to fast-track the project by adopting a "piecemeal" environmental review process instead of assessing the impact of the entire project upfront. A full assessment is needed, they say, to assure that environmental concerns are known and incorporated into the layout, construction and operation of the project.

"The state is forfeiting its right and its authority to enforce state regulations by punting environmental review to Klickitat County," said Michael Lang, conservation director at Friends of the Columbia Gorge. The organization has taken no official position on the Saddleback project, but is appealing Skamania County's energy facility zoning ordinance.

#### **Owl habitat**

One potential sticking point is that the state trust land lies in an area of scattered old growth and second growth forest used by the threatened northern spotted owl. The DNR is required to manage the area as a "spotted owl emphasis area" under its federally approved habitat conservation plan.

The DNR would require SDS to consult with federal and state wildlife officials before installing wind-monitoring towers to determine whether they could harm birds or wildlife. It would require a sign-off from the U.S. Fish and Wildlife Service that the project does not have a negative impact on owls or other imperiled species.

Spadaro said it remains to be seen whether the state trust land will prove to be a viable source of wind power. "We may start reviewing this and find out that there are wildlife issues or other issues that make it impossible to go ahead."

However, if everything goes smoothly, as many as 25 or 30 giant wind turbines could be built on DNR land, he said.

With a new administration in Washington, D.C., promoting green energy, and new state renewable energy requirements looming, the time is right to move ahead on viable wind energy projects, Spadaro said.

A voter-approved federal initiative requires electric utilities to get 15 percent of their energy from renewable sources by 2020. Oregon and Washington have adopted even more ambitious goals.

"President Obama has spoken about his intent to increase renewable energy," Spadaro said. "There are now discussions about a national renewable energy standard as well. The demand is there. So is the ability to finance and develop the project. There are bank issues that make it more of a challenge, but that is not a long-term issue."

Comments on the DNR's environmental assessment of the proposed land lease should be submitted by Feb. 10 via e-mail to [sepacenter@dnr.wa.gov](mailto:sepacenter@dnr.wa.gov), or by mail to P.O. Box 47015, Olympia, WA, 98504-7015.

Kathie Durbin: 360-735-4523 or [kathie.durbin@columbian.com](mailto:kathie.durbin@columbian.com).

EXHIBIT     E      
PAGE   2   OF   2

## Wind farm fire caused blackout

*A \$3 MILLION wind farm turbine caught fire while dozens shut down at the time South Australia most needed them - when a heatwave left 63,000 South Australian homes without power last month.*

*February 6, 2006 in Sunday Mail*

Adding to the drama, firefighters could not extinguish the blaze because the tower was too high at 67m.

Lack of wind and automatic shutdowns triggered by hot temperatures were to blame for the state's 180 turbines producing just 10 per cent of their maximum power capacity during the January heat wave, according to experts.

The experience proved SA could not rely on wind power to provide electricity when demand was greatest, the Electricity Supply Industry Planning Council (ESIPC) said.

"You never know if the wind will be blowing when you need it to or if wind turbines will shut down," ESIPC spokesman Brad Cowain said.

Operators of the Lake Bonney wind farm, where the turbine fire occurred on Sunday, January 22, said all of its 46 turbines had automatically shut down during the heat wave when temperatures exceeded 40C.

"We want the turbines to operate during peak demand to capture revenue but power output is limited by the automatic shut down to protect electrical instruments," wind farm operator Miles George of Babcock and Brown Wind Partners said.

He said the turbine fire – the first in Australia – had been caused by an electrical fault while maintenance crews were working on it after it had shut down.

Around 3pm, 40 CFS firefighters and six trucks rushed to the wind farm to extinguish the blaze but fire hose water couldn't reach the steel generator at the top of the tower.

Instead, the firefighters watched as fire destroyed the \$3 million turbine – which weighs 75 tonnes – and extinguished spot fires ignited by ashes from the turbine blaze.

According to ESIPC, many of the European manufactured turbines used in SA shut down during extreme temperatures to avoid generator meltdown.

"Most turbines are manufactured in Europe where they don't have to worry about operating at high temperatures," Mr Cowain said.

"We are investigating which individual turbines were not operating because of a shut down or lack of wind."

Between Thursday, January 19 and Sunday, January 22, maximum temperatures exceeded 40C throughout most of the state, creating record demands for electricity while wind farm output averaged only 10 per cent.

But during Saturday's peak power demand wind farm output plummeted to just 2 per cent of capacity, producing enough power for only 3500 homes, according to ESIPC. This compared with the maximum capacity of 318MW to power 175,000 homes. SA leads the nation in wind farm energy with five established sites – Starfish Hill, Canunda, Wattle Point, Cathedral Rocks and Lake Bonney.

There are numerous other approved wind farm developments including an AGL plan for 43 turbines at Hallet in the state's Mid North.

But AGL also plans to more than double the capacity of its nearby gas-fired plant, from 180MW to 430MW, at a cost of more than \$100 million to ensure peak demand during hot weather can be met.

The state's independent energy regulator Pat Walsh declined to comment about the wind farm performance during the heat wave or its implications on the state's overall energy supply.

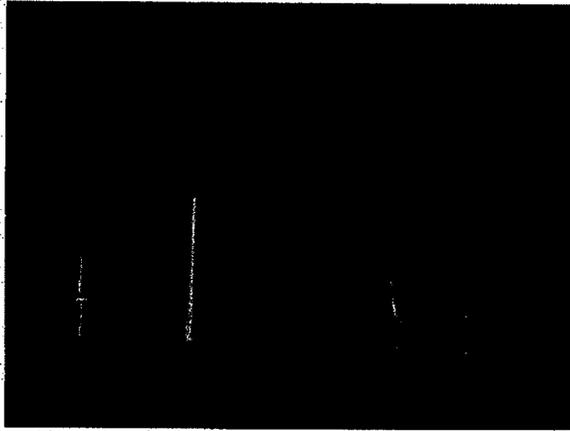
<http://www.ktiv.com/Global/story.asp?S=9605354>

## **Investigation: 'Foreign object' caused wind farm fire**

January 1, 2009

By Matt Breen  
KTIV NewsChannel 4

An investigation suggests an explosion and fire inside a Nebraska wind turbine— that's part of the largest wind farm in the state— was caused by a "foreign object".



A spokesperson for the company building the 80 megawatt Elkhorn Ridge farm, near Bloomfield, says the "object" blew into the turbine causing the blast. The incident injured three workers, including one who suffered first and second-degree burns from the waist up.

An investigation continues. But, company officials say the wind farm will begin generating power in the first quarter of 2009.

<http://portlincoln.yourguide.com.au/news/local/news/general/wind-turbine-burnt-out/1425564.aspx>

## Wind turbine burnt out

February 5, 2009

Natasha Ewendt  
Port Lincoln Times

A wind farm turbine caught fire at the Cathedral Rocks Wind Farm in the early hours of Tuesday morning.

A fishing boat reported the fire at about 1am, and about 23 MFS and CFS firefighters extinguished the blaze before it spread.

Port Lincoln CFS regional commander Kevin May said on the crews' arrival the turbine housing at the top of the tower was on fire, with some embers falling to the ground.

He said the weather was on the firefighters' side and helped in preventing the fire spreading to nearby vegetation.

The turbine housing was completely destroyed, but the rest of the turbine could be salvageable.

The company said yesterday it expects the damage bill to be about \$2 million, but it would determine an exact amount when it finishes its investigation.

EXHIBIT     H      
PAGE     1     OF     1

**SKAMANIA COUNTY FIRE DISTRICT NO. 4**  
10042 WASHOUGAL RIVER ROAD PO BOX 249 WASHOUGAL, WASHINGTON 98671  
PHONE (360) 837-3420 FAX (360) 837-3167

Skamania County Commissioners  
P.O. Box 790  
Stevenson, WA 98648

October 9, 2008

**RE: Skamania County Code Title 21 Zoning**

The Board of Skamania County Fire District No. 4, as well as the Fire Chief, continues to have concerns relating to some of the "Conditional Uses" in the Planning Commission recommended Title 21 zoning draft. The Planning Commission has appropriately removed the "Community Commercial Zoning" and "Camping Cabins" in the West End.

However, the allowance of large-scale wind generating and bio-energy facilities in the West End of the county is of great concern, given our extreme hazard risk assessment for potentiality of catastrophic wildfire. Further, multiple Nacelle fires have occurred in industrial wind turbine equipment. These facilities also require substations and transmission lines. In the event of a facility or substation fire, the ability of Fire District 4 (an all volunteer department) in providing standard fire and emergency medical calls would be overwhelmed.

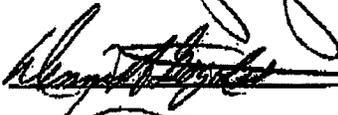
During strong east winds, power lines are often either struck or break, leading to fires on the ground and in the trees. Again, if a higher voltage line were to come down on a hot summer day with strong east winds, or a Nacelle fire erupted in a wind turbine, a devastating fire could easily move beyond control due to the limited water supply and response capacity of the fire district. This could lead to a massive urban interface fire that could destroy many homes, burn many acres of land and lead to serious injury or death to those who could not retreat quickly enough from such a fire.

We the Board and the Fire Chief, insist that you consider the response capabilities of the emergency services available for the West End, before adopting zoning which would permit large scale wind energy and bio-energy facilities in this area of established high risk. If you proceed with zoning for these proposed facilities, we feel you will surpass the ability of local emergency services, placing the residents of the West End in peril. We believe it is imperative that these issues be addressed.

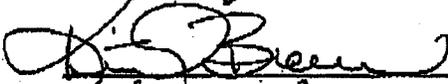
Respectfully,



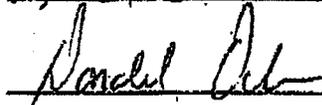
Tim Young, Chair, Board of Commissioners



Dennis Gogolski, Commissioner

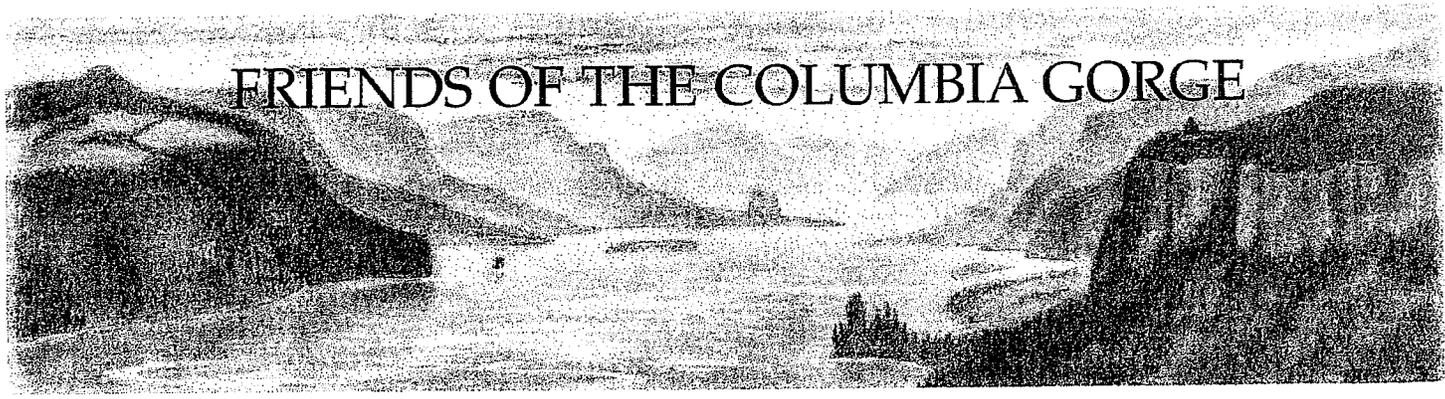


Keith Brown, Commissioner



Donald Ochs, Chief

EXHIBIT I  
PAGE 1 OF 1



# FRIENDS OF THE COLUMBIA GORGE

*VIA E-MAIL AND FIRST-CLASS MAIL*

May 18, 2009

Allen J. Fiksdal, EFSEC Manager  
Energy Facility Site Evaluation Council  
P.O. Box 43172  
905 Plum St. SE  
Olympia, WA 98504-3172

**Re: SEPA & NEPA Scoping for the Proposed Whistling Ridge Energy Project –  
Application No. 2009-01**

Dear Mr. Fiksdal:

Friends of the Columbia Gorge has reviewed the above-referenced proposal and would like to provide the following scoping comments pursuant to SEPA and NEPA. Friends is a non-profit organization with approximately 5,000 members dedicated to protecting and enhancing the resources of the Columbia River Gorge. Our membership includes hundreds of citizens who reside within the Columbia River Gorge National Scenic Area.

SEPA and NEPA require that the decision making agencies take a hard look at the direct, indirect, and cumulative impacts of the proposed Whistling Ridge Energy Project. The Environmental Impact Statement (EIS) must include thorough analysis of the direct, indirect, and cumulative impacts to wildlife and aesthetic resources. To obtain accurate information on the likely impacts, both EFSEC and BPA must consult with agencies that have expertise or jurisdiction in managing the resources that would be adversely impacted.

Based on a cursory review of the proposed development, the project would cause significant adverse impacts to aesthetic resources in the Columbia River Gorge. This includes adverse impacts to viewsheds protected by the Columbia River Gorge National Scenic Area and views from the Lower White Salmon Wild and Scenic River Area, the Historic Columbia River Highway, the Lewis and Clark National Historic Trail, and the Oregon Pioneer National Historic Trail. Based on the likely significant adverse impacts to these resources, EFSEC and BPA must consider an alternative that would avoid any

impacts to views from these locations. In the interest of conserving administrative resources, this alternative should be identified as the preferred alternative at the outset of EIS preparation.

### **Wildlife Impacts**

Modern industrial wind energy facilities have the potential to cause significant adverse impacts to range of wildlife species. The industrial-scale development can cause direct mortality from collisions with wind turbine blades and through barotraumas when bats fly too close to spinning blades. Facilities can also cause indirect impacts through displacement and habitat fragmentation. The EIS must include analysis of how the facility would impact sensitive and listed species such as the northern spotted owl and northern goshawk.

EFSEC and BPA must thoroughly analyze how the proposed facility would impact wildlife. This analysis must include avoidance measures, including relocating or removing turbines from the project. Only after avoidance is considered should EFSEC or BPA analyze mitigation measures.

The EIS must indicate all bird species that may or do occur within the Project Site that are protected under the federal Migratory Bird Treaty Act, 16 U.S.C. §§ 703-712, and any other state or federal legislation designed to protect avian species.

The EIS must analyze the likely cumulative impacts of wind energy development in the region. Currently approximately 1,800 megawatts of wind energy has been permitted in Klickitat County alone. To date, no cumulative impacts study has been conducted to ascertain the region-wide impacts of wind energy facilities on wildlife. During review of other wind energy facilities in the region both the Washington Department of Fish and Wildlife and the United States Fish and Wildlife Service have called for cumulative impacts analysis. See USFWS Letter, attached as Exhibit A. To date, no cumulative impacts analysis has occurred. This must be included before EFSEC and BPA permit additional wind power development, especially development in forested areas where there is a higher probability of adverse impacts to wildlife.

Notably, monitoring reports on the Big Horn Wind Project in Klickitat County have shown higher incidence of avian mortality than pre-construction survey and modeling predicted. See Big Horn Avian Mortality Report, attached as Exhibit B. EFSEC and BPA must ensure that the EIS uses the best available science for surveying and modeling protocols to ensure that projected impacts are sufficiently accurate and precise. The mortality projections should also include a margin for error. Based on this analysis the EIS should evaluate alternative siting options that would avoid or reduce wildlife impacts. The EIS should also evaluate potential post-construction mitigation measures in case actual mortality exceeds predicted mortality.

Facility design and operating conditions must also be considered in the EIS. Brightly lit substations have been associated with large clusters of bird fatalities at wind

facilities. The EIS must include detailed analysis of lighting at all turbines and other facility structures and how this lighting would impact birds and bats. Also, the wind speeds at which turbines operate may correlate to when specific species of bats or birds may be at the highest risk of collision. Creating operating protocols for what wind speeds turbine blades will be allowed to operate may provide opportunities to craft mitigating conditions that will avoid adverse impacts.

Finally, the EIS must provide detailed analysis of how the proposed facility complies with the Washington Department of Fish and Wildlife Wind Siting Guidelines.

### **Aesthetic Impacts**

The proposed facility would likely cause significant adverse impacts to sensitive viewsheds. Most notably, this includes viewsheds protected by the Columbia River Gorge National Scenic Area Act. These protected viewsheds overlap with views from several sensitive areas, including the Historic Columbia River Highway, the Lewis and Clark National Historic Trail, the Oregon Pioneer National Historic Trail, and the Lower White Salmon Wild and Scenic River.

EFSEC must ensure environmental impacts to the views from these locations are thoroughly analyzed. *See Swift v. Island County*, 87 Wn.2d 348, 552 P.2d 175 (1976) (requiring an EIS for a residential development that would have significantly impacted sensitive areas in the vicinity, including Whidbey Island Historical District, which is listed on the National Register of Historic Sites, Fort Casey Historical State Park, and Crockett Lake, which is valuable waterfowl and shorebird habitat).

The proposed facility is proposed to be immediately adjacent to the National Scenic Area. As a threshold matter, the EIS must ascertain the precise location of the Scenic Area boundary to evaluate whether the proposed industrial facility would be located within the Scenic Area. To do so, EFSEC and the PBA must determine whether the NSA boundary has been formally surveyed. The results of such a survey must be approved by the Forest Service.

Many of the individual turbines may be highly visible, both during the day and the night, from within the National Scenic Area. This includes views from I-84, the Columbia River, Washington State Route 141, Panorama Point, Cook-Underwood Road, and the Historic Columbia River Highway. The EIS must thoroughly analyze the impacts of individual turbines on the viewshed as well as the cumulative impacts of all visible turbines.

The preferred methodology for evaluating aesthetic impacts in the Scenic Area is the Forest Service's Scenic Management System. This system creates a formal process for ascertaining viewer expectations in relationship to the complexity of the viewed landscape. EFSEC and the BPA should also consider the National Academy of Sciences' recent document entitled, *Environmental Impacts of Wind-Energy Projects* (National

3-1-II-3-12. Developing large-scale industrial infrastructure that would protrude into this viewshed would directly frustrate the purpose of the Scenic Area Act.

The EIS must also document the likely impacts to views from I-84. In addition to the length of I-84 from Viento State Park to Hood River, there must be thorough analysis of impacts to views from the stretch of I-84 from Hood River, Oregon, to approximately Mosier, Oregon. Turbines in northern portion of the project would highly visible from the east bound lanes of I-84. The EIS must include detailed analysis of how this view would be altered, including avoidance and mitigation measures.

The aesthetics impacts analysis must include a linear analysis of views from linear key viewing areas and overlapping historic trail viewsheds. This includes views from the Columbia River, Interstate 84, the Historic Columbia River Highway, including abandoned sections that are slated for restoration, Cook-Underwood Road, and Washington State Route 141. Analysis must include the length of the KVAs where the project would be visible, the number of turbines that would be visible for each length, the distance from the project for each length, and whether nighttime lighting would be visible.

Finally, the EIS must document the likely impacts from both daytime and nighttime lighting. While lighting is required by the Federal Aviation Administration, the location of required lighting must be documented in the EIS. Based on this information impacts can be documented and appropriate avoidance or mitigation measures can be reviewed.

**Consultation with agencies with jurisdiction or expertise.**

EFSEC must consult with and obtain comments from agencies that have jurisdiction or expertise regarding the impacted environment. RCW 43.21C.030(2)(d); *see also* WAC 197-11-920. The impacted environment includes the Columbia River Gorge National Scenic Area, the Lower White Salmon Wild and Scenic River Area, the Gifford-Pinchot National Forest, the Lewis and Clark National Historic Trail, the Oregon Pioneer National Historic Trail, the Historic Columbia River Highway, the Mt. Hood National Forest, and state parks in Washington and Oregon.

Agencies with jurisdiction or expertise in these areas include the Columbia River Gorge Commission, the National Scenic Area office of the USDA Forest Service, the Gifford-Pinchot National Forest, the National Park Service, the Oregon Department of Transportation, the Oregon Parks and Recreation Department, the Washington State Parks and Recreation Commission, the Oregon Department of Parks and Recreation. Agencies with expertise on wildlife issues include the U.S. Fish and Wildlife Service and Washington State Department of Fish and Wildlife.

Finally, the Washington Department of Natural Resources must be consulted regarding compliance with the Washington Forest Practices Act, which requires that all proposals that would convert the use of land to land uses other than commercial timber

Academies Press, 2007), which includes methodology for analyzing possible impacts from wind development on aesthetic resources.

SEPA also requires that the impacts analysis include an evaluation of whether the proposed action would be consistent with the goals and purposes of laws and regulations. WAC 197-11-330(3)(e)(iii). This regulatory review must include analysis of the degree that the proposal would be consistent with the criteria for protecting scenic resources found in the Management Plan for the Scenic Area. The EIS must identify the applicable scenic standards and evaluate whether the proposal would meet the objectives of the Plan. Any portion of the project that would frustrate the purposes of the Act and the Management Plan should be considered a de facto significant impact. In performing this evaluation, EFSEC and BPA must consult with the National Scenic Area office of the U.S. Forest Service.

EFSEC must also consider possible cumulative impacts from other projects proposed along the Scenic Area boundary. These include the Windy Point and Windy Flats facilities in Klickitat County.

The project would be highly visible from the Historic Columbia River Highway from Viento State Park to approximately Mosier, Oregon. This includes portions of the HCRH that have been restored since the adoption of the National Scenic Area Act and additional portions that are slated for restoration within the next decade. Portions targeted for restoration include the historic Mitchell Point Tunnel and its carefully crafted windows carved out of basalt. The restored tunnel will provide views of the Underwood Bluff and Underwood Mountain. The restoration work would continue to Ruthton Point Park, just west of the Hood River, Oregon. The details of restoration efforts can be found in The Historic Columbia River Highway Master Plan, prepared by the Oregon Department of Transportation and available at: <http://www.oregon.gov/ODOT/HWY/HCRH/documents.shtml> (hereby incorporated by reference; see also <http://hcrh.org/hwynneeds.html>).

The viewshed from this portion of the Historic Highway would be dominated by the southern-most portions of the proposed wind facility. The windows on a reconstructed Mitchell Point Tunnel would look directly north to the A-Array of the Whistling Ridge Energy Facility. Currently, that view is dominated by views of Underwood Bluff, which is designated as GMA Open Space under the Management Plan for the Scenic Area. The area is designated Open Space in part because of the outstanding scenic views.

The EIS must also address the degree that the proposal would frustrate the purpose of regulatory mechanisms that are designed to protect this viewshed. The Underwood Bluff is designated Open Space. This designation is required by the Scenic Area Act for location with "outstanding scenic views and sites," "historic trails and roads and other areas which are culturally or historically significant" 16 USC 544 Section 2(A)(1). Open Space designations are reserved for the most sensitive resources in the Scenic Area and as a result Open Space areas receive the highest level of protection. Management Plan at II-

operation. Forest land conversions require SEPA review by the county and a Forest Practice approval from the Washington DNR.

The EIS must include the results and conclusions of consultation with the above-referenced agencies regarding impacts to resources under their jurisdiction or expertise.

#### **General mapping errors**

The application at Figure 4.2-4 includes a mapping error. The entire area within T3N, R10E, Section 18 that lies south of the BPA transmission lines is zoned For/Ag 20. The application depicts part of this area as unmapped. EFSEC and BPA must correct this error in evaluating the proposed project for consistency with laws and regulations.

#### **Impacts to grid capacity and required back-up power**

The BPA must include cumulative impacts analysis of how the BPA will be able to integrate additional intermittent power sources into the grid. The BPA has previously completed some work in ascertaining how new wind energy projects can be accommodated on the grid. This cumulative impacts analysis must be incorporated into the EIS for the subject proposal. To the extent that the BPA's wind integration work meets the requirements of SEPA and NEPA, the current EIS may be tiered to prior environmental analysis.

#### **Water quality impacts**

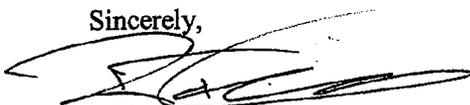
The EIS must evaluate the relative impacts of lower probability storm events that are reasonably foreseeable. The project area includes headwaters for tributaries to the White Salmon River and the Little White Salmon River. Condit Dam on the White Salmon River is currently slated for removal in 2010. Removal of Condit Dam will restore habitat for several species of ESA listed species. The Little White Salmon River is also habitat for anadromous fish species. In addition, the Little White Salmon is currently failing to meet water quality standards established by the Clean Water Act. The EIS must address the impacts of the stormwater run-off on these fish bearing water resources. This must include cumulative impacts analysis of impacts from the creation of impervious surfaces, the construction of industrial-scale roads that would generate sheet run-off, and impacts from deforestation in the two watersheds that contribute to increased pulse stream flows and increased sedimentation.

#### **Conclusion**

The Whistling Ridge Energy Project would be sited within sensitive viewsheds for several areas designated for protection, including the Columbia River National Scenic Area, the Lower White Salmon Wild and Scenic River Area, the Historic Columbia River Highway, and the Lewis and Clark National Historic Trail. The project would also be located in a forested area that is habitat for several threatened and sensitive species. The EIS must thoroughly document all of the likely direct, indirect, and cumulative impacts to

these resources. The EIS should include a preferred alternative that avoids impacts to these resources.

Sincerely,

A handwritten signature in black ink, appearing to read 'Richard F. Till', written over a horizontal line.

Richard F. Till  
Land Use Law Clerk



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

**Bend Field Office  
20310 Empire Ave, Ste A-100  
Bend, Oregon 97701  
(541) 383-7146 FAX: (541) 383-7638**

Reply To: 6320.0005 (07)  
File Name: Wind Cascade Wind App Cmts.doc  
Tracking Number: 07-1417  
TAILS: 13420-2007-FA-0132

June 1, 2007

Mr. Adam Bless  
Energy Facility Siting Coordinator  
Oregon Department of Energy  
625 Marion St. NE  
Salem, OR 97301-3737

**Subject:** Application for a Site Certificate for the Cascade Wind Project, Wasco  
County, Oregon

Dear Mr. Bless:

The U.S. Fish and Wildlife Service (Service) has reviewed the Cascade Wind Project (facility) application for a site certificate for a proposed 60 megawatt (MW) wind generation facility. The applicant's (UPC Oregon Wind, LLC) proposed facility includes 40 General Electric (GE) 1.5sle turbines with 253-foot rotor diameters on 263-foot towers. The turbines will be sited along ridgetops in three groupings, referred to as the north, central, and south arrays. The proposal includes: 1) approximately 9.64 miles of new roads and turnaround sites; 2) 4.56 miles of existing roads to be upgraded; 3) two permanent meteorological towers; 4) a system of 34.5 kilovolt electrical collection lines, both underground and overhead; 5) an electrical substation; and 6) an operations and maintenance facility with a shop, control room and maintenance area.

The Service has legal mandate and trust responsibility to maintain healthy, migratory bird populations for the benefit of the American public. We work collaboratively with our partners under conventions, treaties, laws and voluntary programs to ensure the conservation of more than 800 species of migratory birds and their habitats. We appreciate the opportunity to provide comments, and we look forward to working with you on this important project.

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EXHIBIT   A    
PAGE        OF

The Service's primary concerns are: 1) cumulative impacts of wind energy projects to migratory birds and bat resources within the Columbia River corridor; 2) the potential for project specific mortality to birds and bats based on the project location adjacent to and within oak woodland, and near two ponds and associated wetlands; 3) adequate mitigation measures to offset unavoidable project impacts to biological resources; and 4) the need for a formal standardized monitoring plan.

#### *Migratory Bird Conservation*

The Service's "A Blueprint for the Future of Migratory Birds" and the "North American Landbird Conservation Plan" identify the challenges of conservation of migratory birds. These challenges include habitat loss, degradation, and fragmentation, and dispersed mortality factors, not directly related to habitat loss, that accompany the growth of human populations and the advance of technology. Wind energy development, power lines, communication towers, among others, cause ever increasing direct mortality. Collectively, these factors contribute to population declines and with anticipated future losses in habitat, pose a growing threat to birds and bats. Implementation of on-the-ground bird conservation strategies at Federal, State, local and project level will be necessary to address the steady increase in avian mortality factors, and population declines.

Most Oregon songbirds, wading birds, waterfowl and birds of prey are protected under either the Migratory Bird Treaty Act (MBTA) or the Bald and Golden Eagle Protection Act (BGEPA). The MBTA prohibits the taking of migratory birds except when specifically authorized by the Department of Interior (16 U.S.C. 703-712). The BGEPA prohibits the taking of bald eagles and golden eagles except when specifically authorized by the Department of Interior (16 U.S.C. 668-668d). While the MBTA and BGEPA have no provisions for allowing an unauthorized take, it is recognized that some birds may be injured or killed at wind turbines and power transmission features even if all reasonable measures to avoid injury and death are implemented. The Service's Office of Law Enforcement carries out its mission to protect birds under these Acts not only through investigations and enforcement, but also through fostering relationships with individuals and industries that seek to work proactively to mitigate the negative impacts of wind energy projects on protected birds. While it is not possible to absolve individuals, companies, or agencies from liability when they commit, assist, or authorize violations of Federal wildlife laws, the Service's Office of Law Enforcement and U.S. Department of Justice have previously exercised enforcement and prosecutorial discretion with entities that have made good-faith efforts to avoid the take (killing or injuring) of protected birds. We recommend discussions continue between the Service, ODFW, ODOE, and UPC Oregon Wind LLC, to ensure wind energy projects minimize and/or avoid construction and operational effects on protected birds. We further believe, due to the considerable uncertainty regarding the potential fatality rate of bats from wind turbine strikes, that provisions for protection of bat populations also be discussed.

The Service recognizes the local efforts by wind energy developers to minimize the risk to birds and bats from disturbance, habitat loss, and collisions with turbines and power lines. However, as wind energy development continues to expand and concentrate in wind rich areas such as the Columbia River corridor, a strategic approach to assess and offset direct and cumulative impacts to birds and bats should be incorporated into all proposed facilities to establish a consistent

approach to further minimize the take of migratory birds, and to offset the direct mortality to bats.

#### *Cumulative Impacts*

We recommend that an expanded environmental impact analysis include a cumulative effects analysis that incorporates all the bird and bat survey data conducted for existing, planned and reasonably foreseeable future wind power projects in the same vicinity including projects in Klickitat County to the north and Sherman County to the east. The rapid escalation of wind power projects east of the Cascades along the Columbia River has raised concern that the environmental impacts analysis for bird and bat resources may not adequately describe cumulative effects of planned wind power projects in the same vicinity. For example, based on information within the Klondike III/Biglow Canyon wind power project DEIS, a total of 3,134 MW of electricity or approximately 1,740 turbines (assuming an average of 1.8 MW/turbine) are reasonably foreseeable future wind power projects in the vicinity. Using the mortality rate per turbine provided in similar areas, 42 raptors, 1,740 – 3,480 passerines, and 2,610 – 4,350 bat fatalities would be expected each year for the existing, planned and reasonably foreseeable wind projects including the Klondike III/Biglow Canyon projects. Although mortality rates appear to be significant, the population effects to individual species from turbine mortality can be difficult to discern. The number, location, and type of turbine; the number and type of species in an area; species behavior; topography; and weather all affect turbine mortality rates and potential adverse impacts to regional populations of raptors and bats along the Columbia River corridor.

#### *Project location within Oak Woodlands*

Approximately one-half of the proposed turbines in this proposed facility pass through or are immediately adjacent to oak woodland habitats. In Oregon, Oregon white oak (*Quercus garryana*) woodlands provide unique habitat for many plant and animal species, but these habitats are rapidly disappearing due to increased urban and agricultural land use and the encroachment of conifers in oak stands. The Oregon Conservation Strategy (2005) identified a Conservation Opportunity Area (i.e., EC-02. Wasco Oaks) which encompasses the majority of the proposed facility project area. Recommended conservation actions have been identified for the Wasco Oaks area to address altered fire regimes, land use conversion and urbanization, and habitat fragmentation.

In the East Cascades, oak woodlands are relatively rare and occur primarily on the north end of the ecoregion. They are located at the transition between ponderosa pine or mixed conifers forests in the mountains, and the shrublands or grasslands to the east. Valuable habitat features of Oregon white oak include its dead branches and cavities, which provide safe places for bird and bat species to rest and raise young, and the production of acorns that are eaten by a variety of wildlife and are particularly important in the winter, when other foods are scarce.

Since no other newer generation wind projects have been developed in comparable oak woodlands avian/turbine interaction data is unavailable. Based on the unique features of oak woodland, the limited amount of this habitat type within the East Cascades Ecoregion, high wildlife value; and the considerable uncertainty of local fatality rates from the facility for bird and bat species known to occupy oak woodland, the Service recommends that wind power development proceed cautiously in oak woodland, and seek to avoid and minimize impacts

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through project design (e.g., using turbines with greater generating capacity (greater than 2.0 MW) in order to reduce the total number of turbines), or consideration of an alternate site.

#### *Recommendations for Mitigation and Monitoring*

Since considerable uncertainty exists regarding the potential population level impacts to particular bird and bat species, the Service recommends that the proposed facility include the following recommendations to avoid, minimize, mitigate and monitor project impacts on avian and bats species.

- To mitigate direct and cumulative impact to birds and bats, consider an option to establish a wind energy mitigation fund or fee system to address direct and cumulative effects by protecting and improving habitats in the region. These mitigation funds could be leveraged or combined with other grant programs (e.g., Oregon Watershed Enhancement Board) to offset bird and bat mortalities over the lifespan of the wind energy development.
- Establish a 0.25 mile setback for three turbine locations (1, 11, and 12) from two open water ponds and associated wetlands within the project area. Because ponds serve as a consistently dependable food resource, concentrated foraging and roosting by bird and bat species are expected to occur increasing the fatality rate of nearby turbines. These ponds were identified as an attractant to bird and bat species in the Ecological Baseline Study completed for the project.
- Consider the use of turbines that would have a peak generating capacity greater than 2.0 MW, in order to reduce the total number of turbine within the project area. For example, the proposed facility would need 15 fewer turbines if 2.4 MW turbines were used. This action could significantly reduce bird and bat fatalities within the project area.
- Post-construction mitigation measures should include habitat restoration or preservation of oak woodland habitats. Possible approaches include: 1) Maintain a diversity of tree size and age across the stand, in particular large oak and ponderosa pine trees; 2) remove conifers or small oaks that are competing with larger oaks; 3) maintain snags and create snags from competing conifers to provide cavity habitat; and 4) encourage oak reproduction through planting or protective exclosures (Oregon Conservation Strategy (2005)). Restoration efforts should be developed and implemented in coordination with local and regional experts, and State and Federal agencies.
- For the Pacific Northwest region, the hoary bat (*Lasiurus cinereus*) and silver-haired bat (*Lasionycteris noctivagans*) appear to be at the greatest risk from collision with wind turbines. Overall populations of bats in the region are not well documented. Bat surveys should be completed to determine from a regional perspective the potential risk to these local populations. Surveys should also be completed to determine bat migratory patterns, patterns of local movements through the area, and the response of bats to turbines, individually and collectively.

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- Proposed mitigation measures should include a formal monitoring plan and agreement to ensure that mitigation measures are completed and that habitat restoration and revegetation are effective.
- Monitoring standards and guidelines should be developed and implemented in coordination with local and regional experts, and State and Federal agencies. Statistical comparisons of bird mortality are the most common measure of data collected at these facilities. The unknown impact of new generation turbines on bird and bat mortalities increases the urgency to initiate long-term monitoring. Much of the discrepancy in bird collision data comes from two causes; a lack of comparable methodology between studies, and trying to compare disparately situated sites (Tingley 2003). Once estimates, methods, and metrics are comparable, they can be used to share site, design, and management information with other facilities to reduce harm to wildlife and their habitats.
- Monitor raptor-safe configurations in high risk areas and low risk areas. Periodically inspect to identify areas of concern and report on the installation, efficacy of design, and degradation in the field of whatever bird protection devices are employed (according to published literature on avian power line electrocution, field observations indicate a significant number of bird protection devices are incompletely or improperly installed and may degrade in the field).
- A 34.5-kilovolt overhead collection line has been proposed to link the central array with the south array that crosses, and then parallels Chenoweth Creek for approximately 0.5 miles. We recommend the overhead collection line span Chenoweth Creek and maintain a 200 foot minimum buffer to minimize construction and maintenance impacts on sediment, shade, and large wood recruitment.
- The decommissioning process of the proposed project should be addressed. The expected life span of the project and decommissioning process should be included in the analysis of impacts of the facility.

The Service appreciates the opportunity to provide comment on the proposed facility. We would like to work with you to further protect fish and wildlife resources within the project area. If you have any questions regarding the Service's comments, please contact Jerry Cordova or me at the Bend Fish and Wildlife Office at 541-383-7146.

Sincerely,



Nancy Gilbert  
Field Supervisor

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## cc:

Mike Green, USFWS Region 1, Portland, OR.  
Estyn Mead, USFWS Region 1, Portland, OR.  
Doug Young, USFWS OFWO, Portland, OR.  
Chris Carey, ODFW, Bend, OR  
Keith Kohl, ODFW, The Dalles, OR  
Rose Owens, ODFW, Salem, OR

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**Avian and Bat Mortality at the Big Horn Wind Energy Project, Klickitat County,  
Washington**

K. Shawn Smallwood

18 October 2008

The Big Horn Wind Energy Project was constructed as planned, consisting of 133 1.5-MW capacity GE wind turbines arranged in 15 rows. PPM Energy, Inc. was the developer, and prepared the SEPA Checklist for the Big Horn Wind Energy Project in order to obtain the permit to build and operate it. As part of the SEPA Checklist, PPM Energy predicted project impacts, and so provided an opportunity to check on the accuracy of the predictions after a year of fatality monitoring.

PPM Energy predicted the project's impacts to birds and bats would be low (Table 1), based on the low mortality estimates that had been reported by other northwestern wind farms that had already been operating, and based on the findings of the Klickitat County Final Environmental Impact Statement (FEIS). The Klickitat County FEIS divided the County into six strata of relative raptor abundance, and the Big Horn project was located in the lowest stratum.

Table 1. Predicted impacts due to wind turbine collisions in the Big Horn Wind Energy Project. The estimates of impacts for subgroups of raptors was derived from percentages of each group among pre-construction observations, so assuming that species would be killed in proportion to their relative abundance based on visual scans. Bats were estimated by projecting rates reported from other wind farms in the Pacific Northwest.

Species group	Annual Project Fatalities	Fatalities per MW
Raptors	3-4	0.015 - 0.020
American kestrels	1.986-2.648	0.00993-0.01324
Large falcons, i.e. prairie falcons	0.294-0.392	0.00147-0.00196
Buteos	0.165-0.22	0.00083-0.0011
Eagles	0.114-0.152	0.00057-0.00076
Northern harriers	0.078-0.104	0.00039-0.00052
Passerines	267	1.338
Waterfowl	0 to few	~0
Waterbirds/Shorebirds	0 to few	~0
Bats	200	1.0025

The SEPA Checklist also provided predictions of cumulative impacts for Klickitat County, relying on WEST (2004) (Table 2). Those who prepared the Checklist assumed an eventual build-out of 1,000 MW of capacity in Klickitat County. To predict cumulative impacts, they extrapolated mortality estimates among US wind farms to this 1,000 MW of capacity. The estimates had been summarized in Erickson et al. (2001) for birds and Erickson et al. (2002) for bats, and projections of mortality for Klickitat County had been made by WEST (2004).

Table 2. Predicted cumulative impacts due to wind turbine collisions in 1,000 MW of capacity anticipated in Klickitat County, Washington (based on WEST 2004).

Species group	Annual Project Fatalities	Fatalities per MW
Raptors	33	0.033
American kestrels	21.846	0.021846
Large falcons, i.e. prairie falcons	3.234	0.003234
Buteos	1.815	0.001815
Eagles	1.254	0.001254
Northern harriers	0.858	0.000858
Total birds	1,461	1.461
Bats	467-600	0.467-0.600

My objective was to compare estimates of observed mortality after a year of fatality monitoring to the predicted fatality rates. However, I found substantial gaps in the report of the first year of fatality monitoring, which I attempted to resolve with my analysis of the data. Also, some of the methods differed from those I would have used, so I applied my own methodology (Smallwood 2007, Smallwood and Thelander 2008).

## METHODS

Kronner et al. (2008) provided no fatality definition, or an explanation of how bird or bat remains were determined to be those of fatalities likely caused by wind turbines. I assumed that standards applied in other wind farm fatality monitoring efforts were applied by Kronner et al. (2008).

I had to assume that the seasons attributed to fatalities were the seasons when the carcasses were found, and not when the bird or bat may have actually died. Because the appendix listing the fatalities did not include estimates of time since death, I could not backdate the carcasses to the season when the fatality likely occurred. I expect there was some unknown level of error in this assumption.

I maintained Kronner et al.'s (2008) omission of fatalities discovered during their clean-up searches from 16-25 October, including two songbirds and one bat. I also used Kronner et al.'s (2008) seasonal search detection rates (Table 6 in Kronner et al. 2008), and I approximated the standard errors of these rates by taking the mean standard errors that could be calculated between the reported 2.5<sup>th</sup> and 97.5<sup>th</sup> quantile values. These values differed between the 2.5<sup>th</sup> and 97.5<sup>th</sup> quantiles, but only slightly. I ignored the results of the dog trials for searcher detection, because they were small in scope and did not differ from the human search detection rates due to small sample sizes.

I decided not to rely on the scavenger removal trial results that were reported in Kronner et al. (2008), who estimated mean days to carcass removal. I found that mean days to carcass removal is prone to bias, and this bias results in lower estimates of fatality rates (Smallwood 2007). Not only was mean days to carcass removal prone to bias, but the estimates reported by Kronner et al. (2008) were considerably longer than reported by anyone else in the U.S. (Smallwood 2007).

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Further yet, Kronner et al. used game hen chicks as surrogates for bats in scavenger removal trials, and non-endemic species as surrogates for birds. The use of game hens and surrogate species in general can bias the results of scavenger removal trials (Smallwood 2007). To adjust the estimates of fatality rates for scavenger removal, I used Appendix 1 values in Smallwood (2007) corresponding with 14 and 28 day search intervals used by Kronner et al. (2008). For bats, I used small bird removal rates in Smallwood (2007), acknowledging that I, too, had to rely on a surrogate species for bats. Based on the bat removal rates that have been reported from wind farm studies, it was likely that my use of small bird removal rates biased my estimates of bat fatality rates low.

No adjustment was apparently made for the nearness of wind turbines to property boundaries where searches were not allowed on the other side of the boundary. The 90 m search radius was not achievable for some unknown number of turbines, and the extent to which searches were not possible was not reported. I used a map of wind turbines and property boundaries depicted in the SEPA Checklist (CH2MHILL 2004) to measure distances between wind turbines and property boundaries of the turbine rows Kronner et al. (2008) reportedly ran into trouble with the boundaries.

I also decided to use a different estimator and a different means of obtaining error terms associated with the unadjusted estimates of fatality rates. The authors used bootstrapping to estimate variance for the unadjusted mortality estimate. They reportedly used bootstrapping because their monitoring amounted to a census of all the turbines. However, the Big Horn turbines were arranged in rows, so I estimated the standard error of mean fatality rates among rows of wind turbines. I adjusted my estimates of fatality rate,  $M_A$ , as:

$$M_A = \frac{M_U}{p \times R \times A}, \quad \text{eq 1}$$

where  $M_U$  was unadjusted mortality expressed as number of fatalities per MW of rated capacity per year,  $p$  was the proportion of turbine-caused bird fatalities found by searchers during searcher detection trials,  $R$  was the estimated proportion of carcasses remaining since the last fatality search and estimated by a compilation of scavenger removal trials across the U.S. (Smallwood 2007), and  $A$  was the proportion of the search area that was actually searched. I calculated the standard error of the adjusted fatality rate by using the delta method to carry the error terms associated with  $p$  and  $R$  (Goodman 1960).

## RESULTS

Adjusted fatality rates tallied to 446 bats, 49 raptors, and 704 birds (Table 1). My estimates were larger than those of Kronner et al. (2008) for most species groups, especially for raptors (Table 2). My estimate of raptor fatality rate was 1.6 times greater than estimated by Kronner et al. (2008). My estimates were also higher than the fatality rates predicted by WEST (2004) before the wind turbines were installed (Table 3). The estimate for the observed raptor fatality rate was 12 to 16 times greater than predicted at the project level, and nearly 1.5 times greater than predicted cumulatively in the County (by CH2MHILL 2004). The estimate for the observed American kestrel fatality rate was 13 to 17 times greater than predicted at the project level, and

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1.6 times greater than predicted cumulatively in the County. In its first year, the Big Horn project killed 16 to 21 times the predicted number of Buteo hawks, and already doubled the predicted Buteo fatality rate for the County upon build-out of wind farms. It killed at least twice the number of bats that were forecast at the project level, and most of the predicted number of bats upon build-out of wind farms in the County.

## DISCUSSION

The pre-project predictions of fatality rates made by WEST (2004) and repeated in the SEPA Checklist were too low. They were inaccurate on which species would be killed. For example, northern harriers were predicted to be killed, even though they have a history of leaving wind farms once the turbines are installed and they usually fly too low to encounter the rotor planes of modern wind turbines. WEST's (2004) predictions were grossly low for raptors, missing by factors of 12, 13, and 16, depending on the species and species group. Inaccuracies of this magnitude warrant reconsideration of the approach used to make the predictions. Either the estimates from other wind farms in the northwest were themselves much lower than reality, or there was some methodological problem with the predictions.

My estimates of fatality rates at Big Horn in some cases exceeded CH2MHILL's (2004) pre-project predictions of cumulative impacts resulting from an anticipated build-out of 1,000 MW of capacity in Klickitat County. According to the SEPA Checklist, the projected build-out of 1,000 MW of wind turbines would kill about 33 raptors per year. However, extrapolating the Big Horn fatality rate to 1,000 MW would lead to a prediction of 243 raptor fatalities per year. This prediction is remarkable because the Big Horn project was located in the stratum of Klickitat County rated to be the least used of the six strata composing the County (see SEPA Checklist). This would lead one to consider a prediction of 243 raptors per year as conservative; a more realistic prediction should be a much higher fatality rate.

According to the SEPA Checklist (CH2MHILL 2004), "These additional cumulative mortalities are relatively insignificant compared to the total bird and bat populations present and represent a small increase in the overall causes of bird mortality..." This conclusion might have been considered reasonable had the impacts been anywhere close to those predicted. However, the estimates of fatality rates following post-construction monitoring suggest that at least 243 raptors will be killed annually in Klickitat County, and more than double the number of bats than were predicted. I do not know what biological impacts these fatality rates will cause, but I would not classify them as "relatively insignificant." There is probably no other human source of mortality that comes close to these levels in Klickitat County.

My estimates of fatality rates were also higher than reported by Kronner et al. (2008). The differences were likely due to Kronner et al.'s (2008) use of mean days to carcass removal in scavenger removal trials. This term can result in estimates that are biased low (Smallwood 2007). There may be additional reasons for the differences, but I cannot determine what they were. One possibility might be the estimated *effective interval* which composes part of the denominator of the equation Kronner et al. used to estimate mortality. I suspect it may have resulted in low estimates, but perhaps I did not understand this term well enough to make this conclusion. The

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description of this term in Kronner et al. (2008) was vague, and I remain unclear about what it is supposed to be doing in the equation.

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Table 1. Estimates of wind turbine-caused fatality rates based on monitoring from 30 October 2006 through 29 October 2007 in the Big Horn Wind Power Project, Washington.

Species	Mean fatality rate, deaths/MW/year		Annual fatalities and 80% CI		
	Unadjusted	Adjusted	Total	LB	UB
Accipter sp.	0.0034	0.0273	5.4	-1.7	12.6
Red-tailed hawk	0.0039	0.0055	1.1	-0.3	2.5
Ferruginous hawk	0.0068	0.0118	2.4	-0.7	5.4
American kestrel	0.0306	0.1730	34.5	4.5	64.5
Long-eared owl	0.0024	0.0035	0.7	-0.2	1.6
Short-eared owl	0.0154	0.0221	4.4	0.7	8.1
Common nighthawk	0.0068	0.0530	10.6	-4.5	25.6
Chukar	0.0323	0.1851	36.9	-14.8	88.6
Gray partridge	0.0785	0.4769	95.1	8.4	181.9
Rock pigeon	0.0190	0.0342	6.8	0.8	12.9
Mourning dove	0.0572	0.4034	80.5	1.8	159.2
Red-shafted flicker	0.0024	0.0134	2.7	-1.1	6.5
Downy woodpecker	0.0034	0.0265	5.3	-2.2	12.8
Horned lark	0.2396	1.2862	256.6	76.2	437.0
Winter wren	0.0039	0.0220	4.4	-1.6	10.4
House wren	0.0046	0.0186	3.7	-1.3	8.8
Mountain bluebird	0.0119	0.0662	13.2	-4.8	31.2
Golden-crowned kinglet	0.0150	0.0835	16.7	0.9	32.4
Ruby-crowned kinglet	0.0136	0.0652	13.0	-4.7	30.7
Thrush sp.	0.0159	0.1236	24.7	-10.4	59.7
Varied thrush	0.0024	0.0134	2.7	-1.1	6.5
Townsend's warbler	0.0116	0.0749	14.9	-5.9	35.8
Yellow warbler	0.0024	0.0185	3.7	-1.6	9.0
Western meadowlark	0.0268	0.1650	32.9	-0.5	66.4
Spotted towhee	0.0037	0.0147	2.9	-1.1	6.9
Dark-eyed junco	0.0128	0.0709	14.2	0.1	28.2
Sparrow sp.	0.0060	0.0239	4.8	-1.7	11.3
Song sparrow	0.0049	0.0273	5.4	-2.0	12.9
Passerine sp.	0.0089	0.0356	7.1	0.1	14.1
Bat sp.	0.0076	0.0306	6.1	0.1	12.1
Big brown bat	0.0024	0.0185	3.7	-1.6	9.0
Silver-haired bat	0.1490	0.8158	162.8	50.8	274.7
Hoary bat	0.2037	1.3699	273.3	77.7	468.9
All bats	0.3627	2.2349	445.9	154.5	737.2
Total raptors	0.0625	0.2432	48.5	2.3	94.7
Total birds	0.6436	3.5236	703.5	32.8	1374.3

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Table 2. Comparison of fatality rates at Big Horn Wind Power Project during 30 October 2006 to 29 October 2007 estimated by Kronner et al. (2008) and by me.

Species group	Mean fatality rate, Deaths/MW/Year		Ratio of Smallwood to Kronner et al. estimates of fatality rate
	Kronner et al. (2008)	Smallwood	
Raptors	0.15	0.24	1.6
Doves	0.12	0.43	3.6
Galliforms	0.23	0.66	2.9
Goatsucker	0.01	0.05	5.0
Passerines	1.99	2.54	1.3
Woodpeckers	0.04	0.04	1.0
Total birds	2.54	3.52	1.4
Bats	1.90	2.23	1.2

Table 3. Ratios of observed to predicted fatality rates specific to the Big Horn Wind Power Project and cumulative among anticipated projects in Klickitat County, Washington.

Species group	Ratio of mean observed to predicted impacts	
	Project	Cumulative
Raptors	12.2 to 16.2	1.47
American kestrels	13.1 to 17.4	1.58
Large falcons, i.e. prairie falcons	0	0
Buteos	16 to 21	1.93
Eagles	0	0
Northern harriers	0	0
Passerines	1.9	No prediction
Waterfowl	0	0
Waterbirds/Shorebirds	0	0
Total birds	No prediction	2.41
Bats	2.2	0.74 to 0.95

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State of Washington  
Department of Fish and Wildlife  
2108 SE Grand Blvd. Vancouver WA 98661 (360) 696-6211

June 5, 2008

Karen Witherspoon, Director  
Skamania County Planning and Community Development  
ATTN: Zoning Update Process  
P.O. Box 790  
Stevenson, WA 98648

**RE: Washington Dept. of Fish and Wildlife comments on 2008 draft Skamania County zoning update**

Dear Ms. Witherspoon:

Thank you for the opportunity to provide additional comments on the draft 2008 Skamania County zoning update. The Washington Department of Fish and Wildlife (WDFW) supports Skamania County's efforts to implement consistent zoning code and maps across the landscape to better protect public resources and values, including our precious fish and wildlife heritage.

**Cluster development**

Under the proposed zoning text changes, Skamania County proposes shifting cluster development from a conditional to an allowable use across a range of low density zones, and eliminating this provision in medium density zones. To better protect open space as well as fish and wildlife habitat, WDFW supports the use of cluster development in appropriate settings such as on the fringes of existing developed areas.

We suggest retaining cluster development as a conditional use in the residential 5 and 10 (R5 and R10), and the forest lands 20 (FL20) zones, and allowing cluster development outright in residential 1 and 2 (R1 and R2) zones. This would maintain opportunities for agency input on proper siting and design of building lots, roads, and infrastructure for cluster development on R-5 and R-10 lands, and facilitate its use on the fringes of existing developed areas.

**Large-scale energy development**

WDFW suggests that Skamania County reexamine the proposed use of administrative review for large-scale energy facility development on lands zoned for forestlands 20 (FL20), and the outright allowance for large-scale energy development on commercial resource lands (CRL40). These two land classifications represent the majority of

Skamania County's rural lands, with numerous critical areas and resource lands that could be impacted by such energy development.

The careful field review of applicant site development plans by WDFW staff is necessary to ensure proper mitigation and avoidance of environmental impacts. To enable such review, WDFW requests that the County consider conditional use review of large-scale energy projects to allow for greater opportunity for agency input. This approach would allow WDFW to assist developers with proper wind farm siting and development, targeting already disturbed lands and avoiding high-value or imperiled habitat areas consistent with the WDFW wind power guidelines.

WDFW would like to re-iterate our calls for a cumulative effects analysis of regional wind power development in the Columbia River Gorge. Such an analysis is typically not possible or required during permitting and siting of an individual wind power development. The County zoning update process is the best opportunity we have to conduct this analysis of potential adverse environmental impacts from development of wind power sites, as well as associated power lines, roads, and other infrastructure. Such an analysis would evaluate the number, location, and type of turbines; the number and type of species in an area; species behavior; topography; and weather factors influencing direct and indirect mortality factors.

We are pleased that the language on page 135, Section E, Large-scale Wind Energy Facilities, includes reference to WDFW Priority and Habitat Species (PHS) maps, and that there is flexibility built into facility siting ("may be adjusted") and construction ("modify construction timing and activities") to reduce the likelihood of adverse impacts to raptors.

The WDFW Wind Power Guidelines identify all of the elements on Page 136, #6, as well as provide additional information and requirements, to provide the Wind industry, the County, WDFW, and the public with a transparent and collaborative process to address impacts to natural resources from wind project development. Because the wind Power Guidelines are more comprehensive than the *draft* zoning text, we recommend that the Wind Power Guidelines be incorporated by reference into this section. Additionally, the use of these Guidelines could be listed as one of the conditions if a wind project is permitted through Skamania County.

#### **Consistency among subareas**

We found inconsistencies among the allowable, administrative, and conditional uses between similar zoning classifications in different subareas confusing and potentially conflicting. For example, cluster development is an administrative use in the Carson rural estate zone, allowable in the Swift mountain recreational 5 zone, but prohibited in the West End rural lands 5 zone. All of these zoning classifications have equivalent minimum lot sizes of 5 acres and seem appropriate areas to encourage use of cluster development. To address this and other inconsistencies, we suggest Skamania County review proposed uses across the various parallel zoning designations.

Ms. Karen Witherspoon  
WDFW Comment Letter  
June 5, 2008  
Page 3 of 3

Thank you again for this opportunity to comment. If you have any questions, please contact us at the phone numbers or emails listed below.

Sincerely,



Ted Labbe  
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September 7, 2007

Curt Dreyer  
Klickitat County Planning Department  
Klickitat County Planning Department  
208 Main St.  
Goldendale, WA 98628

Dear Mr. Dreyer:

Subject: Windy Flats Wind Farm Proposal

Washington Department of Fish & Wildlife (WDFW) staff have reviewed the Windy Flats Wind Farm documents and we have numerous concerns associated with the proposal.

We formally ask Klickitat County to consider the SEPA documents as being incomplete, for a number of important issues are either not discussed or simply glossed over. We also submit that the documents do not follow the Washington Department of Fish & Wildlife Windpower Guidelines, which to our understanding, are required under Klickitat County's Energy Overlay Zone.

When Windy Flats is permitted, we believe there will be nine active wind farms in Klickitat County (with numerous additional proposals waiting in the wings). It is time for wind farm applicants to adequately address the cumulative impacts of hundreds of wind turbines developed in the same vicinity while also presenting a range of alternatives instead of only one siting plan. The only way to accomplish this thorough analysis is with the requirement of an Environmental Impact Statement. WDFW has asked for a regional approach to wind power for 15 years without success.

Thank you for your consideration. Specific comments follow this page.

Bill Weiler  
WDFW Habitat Biologist

Cc: Tim Rymer  
David Anderson  
Curt Leigh  
Kurt Humphrey  
Michael Greene, USFWS

## WDFW Response to the Windy Flats Proposal

### Process

WDFW is disappointed that only preliminary field review meeting occurred with the applicant and WDFW staff. There was no opportunity to review written plans prior to public distribution. There has been no opportunity to negotiate mitigation measures. There was no opportunity for the public to review proposed turbine locations on site or to view the wind farm area. WDFW strongly recommends a careful and thorough pre-application process in order to ensure that public resources will be adequately protected.

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WDFW has asked that turbines be placed 300 feet back from cliff edges due to the use of those areas by raptors and other species. It is our understanding that turbines will be placed well-within the 300 foot buffer. The 17 known raptor nests were not mentioned regarding their influence on turbine sitings. The many maps showing flight paths of "large birds" were not overlaid against the proposed turbine strings and there was no description/narrative on how these species will be impacted when turbines are placed within their flight paths. We question why a proposed road servicing turbine string 126-135A is allowed within a stream corridor? There is no narrative describing how far turbines will be sited from WDFW priority habitat Oregon white oak stands.

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Again, we find the information presented in the Wind Flats SEPA documents to be unacceptable and urge that the planning process be re-opened until a thorough environmental analysis is developed.

Montano, Andrew M - KEC-4

---

**From:** James Gordon [jgordon@cowlitz.org]  
**Sent:** Monday, June 08, 2009 5:04 PM  
**To:** Montano, Andrew M - KEC-4; Mercier, Bryan K - DKT-7; catherinedickson@ctuir.com; Rob.Whitlam@dahp.wa.gov  
**Subject:** KEC-4 DOE-BPA Whistling Ridge Energy Project - Cowlitz Indian Tribe response.  
**Attachments:** KEC-4 DOE-BPA Whistling Ridge Energy Project.pdf; cowlitz inadvertent discovery language.pdf



KEC-4 DOE-BPA cowlitz inadvertent  
Whistling Ridge ... discovery ...

Mr. Montaña and Mr. Mercier,

Please see the attached response from the Cultural Resources Department of the Cowlitz Indian Tribe.

Thank you.

James Gordon

--

James Gordon

Cultural Resources Department  
Cowlitz Indian Tribe

360.577.5680  
360.957.3004 cell  
360.577.6207 fax

This message is confidential and protected  
by Tribal Code and Federal law.



# Cowlitz Indian Tribe

P.O. Box 2547 Longview, WA 98632  
360.577.8140 577.7432 (f)

May 6, 2009

Andrew M. Montañó  
Environmental Project Manager  
United States Department of Energy  
Bonneville Power Administration  
PO Box 3621  
Portland, OR 97208-3621

RE: KEC-4 Whistling Ridge Energy Project.

Dear Mr. Montañó:

In reference to the project stated above, the Cultural Resources Department of the Cowlitz Indian Tribe would like to state its interest.

The Cowlitz Indian Tribe concurs with the recommendations of the Confederated Tribes of the Umatilla Indian Reservation and of the Confederated Tribes and Bands of the Yakama Nation. We also recommend an Inadvertent Discovery Plan be attached to the permit; we have included language for your consideration.

Please contact us with any questions or concerns you may have. We look forward to working with you on this undertaking.

Thank you for your time and attention.

All My Relations,

dAVe burlingame  
Director, Cultural Resources  
360.577.6962  
508.1677 [c]  
577.6207 [f]

CC: Rob Whitlam, Department of Archaeology and Historic Preservation  
Bryan Mercier, Bonneville Power Administration  
Catherine Dickson, Confederated Tribes of the Umatilla Indian Reservation  
Johnson Meninick, Confederated Tribes of the Yakama Nation  
Ed Arthur, Cowlitz Indian Tribe



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Cowlitz Indian Tribe Cultural Resources Department  
P.O. Box 2547 1055 9<sup>th</sup> Ave. Suite C Longview, WA 98632  
360.577.6962 577.6207 (f) [www.cowlitz.org](http://www.cowlitz.org)



# COWLITZ INDIAN TRIBE



Cultural Resources Department  
P.O. Box 2547 1055 9<sup>th</sup> Ave. Suite C Longview, WA 98632  
360.577.6962 577.6207 (f) [www.cowlitz.org](http://www.cowlitz.org)

## INADVERTENT DISCOVERY LANGUAGE [revised 080722]

In the event any archaeological or historic materials are encountered during project activity, work in the immediate area (initially allowing for a 100' buffer; this number may vary by circumstance) must stop and the following actions taken:

1. Implement reasonable measures to protect the discovery site, including any appropriate stabilization or covering; and
2. Take reasonable steps to ensure the confidentiality of the discovery site; and,
3. Take reasonable steps to restrict access to the site of discovery.

The project proponent will notify the concerned Tribes and all appropriate county, state, and federal agencies, including the Department of Archaeology and Historic Preservation. The agencies and Tribe(s) will discuss possible measures to remove or avoid cultural material, and will reach an agreement with the project proponent regarding actions to be taken and disposition of material.

If human remains are uncovered, appropriate law enforcement agencies shall be notified first, and the above steps followed. If the remains are determined to be Native, consultation with the affected Tribes will take place in order to mitigate the final disposition of said remains.

See the Revised Code of Washington, Chapter 27.53, "Archaeological Sites and Resources," for applicable state laws and statutes. See also Washington State Executive Order 05-05, "Archaeological and Cultural Resources." Additional state and federal law(s) may also apply.

### Contact information:

dAVe burlingame  
Director, Cultural Resources  
360.577.6962  
508.1677 cell  
577.6207 fax  
[culture@cowlitz.org](mailto:culture@cowlitz.org)

Ed Arthur  
Assistant Director, Cultural Resources  
360.575.3314  
508.6369 cell  
577.6207 fax  
[earthur@cowlitz.org](mailto:earthur@cowlitz.org)

Montano, Andrew M - KEC-4

**From:** Rick Till [Rick@gorgefriends.org]  
**Sent:** Monday, May 18, 2009 5:21 PM  
**To:** Nathan Baker; Fiksdal, Allen (CTED)  
**Cc:** efsec@CTED.WA.GOV; BPA Public Involvement; Montano, Andrew M - KEC-4; H. Bruce Marvin; Gary Kahn  
**Subject:** RE: Whistling Ridge Energy Project - Friends' Scoping Comments - Part 1  
**Attachments:** Friends' Scoping Coments - Part 2.attachments II.pdf



Friends' Scoping  
Coments - Par...

Dear Mr. Fiksdal,

Please find attached a second set of attachments to Part 2 of the scoping comments of Friends of the Columbia Gorge.

Thanks for your consideration,

Richard Till, Land Use Law Clerk  
Friends of the Columbia Gorge  
rick@gorgefriends.org  
522 SW 5th Ave., Suite 720  
Portland, Oregon 97204-2100  
(503) 241-3762 x 107  
Fax: (503) 241-3873

Become a Friend of the Columbia Gorge at [www.gorgefriends.org](http://www.gorgefriends.org)

-----Original Message-----

**From:** Nathan Baker  
**Sent:** Monday, May 18, 2009 4:06 PM  
**To:** Fiksdal, Allen (CTED)  
**Cc:** efsec@cted.wa.gov; comment@bpa.gov; Andrew M. Montaño; H. Bruce Marvin; Rick Till; Gary Kahn  
**Subject:** Whistling Ridge Energy Project - Friends' Scoping Comments - Part 1

Dear Mr. Fiksdal:

Please find attached Part 1 of the scoping comments of Friends of the Columbia Gorge on the above-referenced proposal. Rick Till will e-mail Part 2 shortly. Paper copies of both parts will be sent in today's mail.

Thank you for your time and consideration. If you have any questions or comments, please do not hesitate to contact me.

Nathan Baker, Staff Attorney  
Friends of the Columbia Gorge  
nathan@gorgefriends.org  
522 SW 5th Ave., Suite 720  
Portland, Oregon 97204-2100  
(503) 241-3762 x101  
Fax: (503) 241-3873



State of Washington  
Department of Fish and Wildlife  
2108 SE Grand Blvd. Vancouver WA 98661 (360) 696-6211

June 5, 2008

Karen Witherspoon, Director  
Skamania County Planning and Community Development  
ATTN: Zoning Update Process  
P.O. Box 790  
Stevenson, WA 98648

**RE: Washington Dept. of Fish and Wildlife comments on 2008 draft Skamania County zoning update**

Dear Ms. Witherspoon:

Thank you for the opportunity to provide additional comments on the draft 2008 Skamania County zoning update. The Washington Department of Fish and Wildlife (WDFW) supports Skamania County's efforts to implement consistent zoning code and maps across the landscape to better protect public resources and values, including our precious fish and wildlife heritage.

**Cluster development**

Under the proposed zoning text changes, Skamania County proposes shifting cluster development from a conditional to an allowable use across a range of low density zones, and eliminating this provision in medium density zones. To better protect open space as well as fish and wildlife habitat, WDFW supports the use of cluster development in appropriate settings such as on the fringes of existing developed areas.

We suggest retaining cluster development as a conditional use in the residential 5 and 10 (R5 and R10), and the forest lands 20 (FL20) zones, and allowing cluster development outright in residential 1 and 2 (R1 and R2) zones. This would maintain opportunities for agency input on proper siting and design of building lots, roads, and infrastructure for cluster development on R-5 and R-10 lands, and facilitate its use on the fringes of existing developed areas.

**Large-scale energy development**

WDFW suggests that Skamania County reexamine the proposed use of administrative review for large-scale energy facility development on lands zoned for forestlands 20 (FL20), and the outright allowance for large-scale energy development on commercial resource lands (CRL40). These two land classifications represent the majority of

Skamania County's rural lands, with numerous critical areas and resource lands that could be impacted by such energy development.

The careful field review of applicant site development plans by WDFW staff is necessary to ensure proper mitigation and avoidance of environmental impacts. To enable such review, WDFW requests that the County consider conditional use review of large-scale energy projects to allow for greater opportunity for agency input. This approach would allow WDFW to assist developers with proper wind farm siting and development, targeting already disturbed lands and avoiding high-value or imperiled habitat areas consistent with the WDFW wind power guidelines.

WDFW would like to re-iterate our calls for a cumulative effects analysis of regional wind power development in the Columbia River Gorge. Such an analysis is typically not possible or required during permitting and siting of an individual wind power development. The County zoning update process is the best opportunity we have to conduct this analysis of potential adverse environmental impacts from development of wind power sites, as well as associated power lines, roads, and other infrastructure. Such an analysis would evaluate the number, location, and type of turbines; the number and type of species in an area; species behavior; topography; and weather factors influencing direct and indirect mortality factors.

We are pleased that the language on page 135, Section E, Large-scale Wind Energy Facilities, includes reference to WDFW Priority and Habitat Species (PHS) maps, and that there is flexibility built into facility siting ("may be adjusted") and construction ("modify construction timing and activities") to reduce the likelihood of adverse impacts to raptors.

The WDFW Wind Power Guidelines identify all of the elements on Page 136, #6, as well as provide additional information and requirements, to provide the Wind industry, the County, WDFW, and the public with a transparent and collaborative process to address impacts to natural resources from wind project development. Because the wind Power Guidelines are more comprehensive than the *draft* zoning text, we recommend that the Wind Power Guidelines be incorporated by reference into this section. Additionally, the use of these Guidelines could be listed as one of the conditions if a wind project is permitted through Skamania County.

#### **Consistency among subareas**

We found inconsistencies among the allowable, administrative, and conditional uses between similar zoning classifications in different subareas confusing and potentially conflicting. For example, cluster development is an administrative use in the Carson rural estate zone, allowable in the Swift mountain recreational 5 zone, but prohibited in the West End rural lands 5 zone. All of these zoning classifications have equivalent minimum lot sizes of 5 acres and seem appropriate areas to encourage use of cluster development. To address this and other inconsistencies, we suggest Skamania County review proposed uses across the various parallel zoning designations.

Ms. Karen Witherspoon  
WDFW Comment Letter  
June 5, 2008  
Page 3 of 3

Thank you again for this opportunity to comment. If you have any questions, please contact us at the phone numbers or emails listed below.

Sincerely,



Ted Labbe  
PHS/GMA Biologist  
(360) 906-6731  
[labbetrl@dfw.wa.gov](mailto:labbetrl@dfw.wa.gov)



Michael Ritter  
Wind Mitigation Biologist  
(509) 543-3319  
[rittmwr@dfw.wa.gov](mailto:rittmwr@dfw.wa.gov)

Cc: Jennifer Hayes, WDFW  
Travis Nelson, WDFW  
Bill Weiler, WDFW  
Ann Friesz, WDFW  
Valerie Grigg Devis, CTED



State of Washington  
Department of Fish & Wildlife  
P.O. Box 213, Lyle, Washington 98635 (509) 365-0075

September 7, 2007

Curt Dreyer  
Klickitat County Planning Department  
Klickitat County Planning Department  
208 Main St.  
Goldendale, WA 98628

Dear Mr. Dreyer:

Subject: Windy Flats Wind Farm Proposal

Washington Department of Fish & Wildlife (WDFW) staff have reviewed the Windy Flats Wind Farm documents and we have numerous concerns associated with the proposal.

We formally ask Klickitat County to consider the SEPA documents as being incomplete, for a number of important issues are either not discussed or simply glossed over. We also submit that the documents do not follow the Washington Department of Fish & Wildlife Windpower Guidelines, which to our understanding, are required under Klickitat County's Energy Overlay Zone.

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Thank you for your consideration. Specific comments follow this page.

Bill Weiler  
WDFW Habitat Biologist

Cc: Tim Rymer  
David Anderson  
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Again, we find the information presented in the Wind Flats SEPA documents to be unacceptable and urge that the planning process be re-opened until a thorough environmental analysis is developed.

**Montano, Andrew M - KEC-4**

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**From:** Vervair, Candace (ATG) [CandaceV@ATG.WA.GOV]  
**Sent:** Monday, May 18, 2009 5:16 PM  
**To:** Fiksdal, Allen (CTED); nathan@gorgefriends.org; rick@aramburu-eustis.com; Montano, Andrew M - KEC-4  
**Cc:** Marvin, Bruce (ATG)  
**Subject:** Whistling Ridge Wind Power Project  
**Attachments:** Letter to A Fiksdal 051809.pdf

Please find attached a letter regarding Whistling Ridge Wind Power Project from Assistant Attorney General H. Bruce Marvin:

<<Letter to A Fiksdal 051809.pdf>>

Candy Vervair, Legal Assistant

Office of the Attorney General

Government Compliance and Enforcement

(360) 664-0237

Fax: (360) 664-0229

candacev@atg.wa.gov



**Rob McKenna**  
**ATTORNEY GENERAL OF WASHINGTON**  
Government Compliance & Enforcement Division  
PO Box 40100 • Olympia, WA 98504-0100 • (360) 664-9006

May 18, 2009

Allen Fiksdal  
Energy Facility Site Evaluation Council  
905 Plum Street SE  
PO Box 43172  
Olympia, WA 98504-3172  
(360) 956-2047

**RE: Comments on Scope of Environmental Impact Statement  
Whistling Ridge Wind Power Project**

Dear Mr. Fiksdal:

Counsel for the Environment (CFE) appreciates this opportunity to comment on the scoping of the Environmental Impact Statement (EIS) to be prepared for the Whistling Ridge Claim Wind Power Project (Whistling Ridge). CFE takes no position in support or opposition to the application of Whistling Ridge at this time. The following comments seek to ensure that the EIS fully captures and analyzes the proposed project's environmental impacts, and possible mitigation measures and alternatives.

Whistling Ridge is the first wind turbine farm to be sited in a forested area in the State of Washington. If approved and constructed, it will likely set a precedent for future development of wind turbine farms in forested habitat. Accordingly, the EIS should identify and carefully scrutinize all significant environmental impacts likely to result from the project, as well as all reasonable means of mitigating for, or avoiding, these impacts. Alternatives to the Whistling Ridge project and cumulative impacts should also be fully explored.

CFE believes that the EIS, at a minimum, should analyze construction and operation impacts to, or arising from, the following:

1. Rare and endangered plant species.
2. Avian species and avian habitat, including endangered and threatened species and species of concern.
3. Bats and bat habitat.

May 18, 2009

Page 2

4. Wildlife and wildlife habitat, including endangered and threatened species, and species of concern.
5. Fish and aquatic habitat, including endangered and threatened species and species of concern.
6. Wetlands.
7. Surface water.
8. Ground water.
9. Air quality.
10. Noise.
11. Wildfire.
12. Traffic.

Thank you for the opportunity to comment on the scoping of the Whistling Ridge EIS. If you have any questions regarding these comments, please give me a call at (360) 586-2438.

Sincerely,

A handwritten signature in black ink, appearing to read 'H. Bruce Marvin', with a long, sweeping horizontal line extending to the right.

H. BRUCE MARVIN  
Counsel for the Environment  
Assistant Attorney General

HBM:cv

Cc: Linda Dalton, Senior Assistant Attorney General  
Christina Buesch, Senior Counsel  
Nathan Baker, Friends of the Columbia Gorge  
Rick Aramburu, SOSA  
Andrew M. Montano, BPA