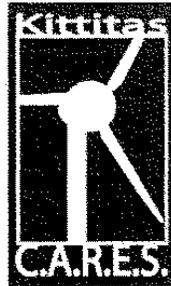


Kittitas CARES:
Citizens Alliance for Renewable
Energy Solutions
110 West 6th Street Box 382,
Ellensburg, WA 98926



Washington State Energy Facility
Site Evaluation Council
925 Plum Street SE Building 4
PO Box 43172
Olympia, WA 98504-3172

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JAN 12 2004

ENERGY FACILITY SITE
EVALUATION COUNCIL

Dear Council Members,

January 9, 2004

Kittitas CARES (Citizens' Alliance for Renewable Energy Solutions) is a group of Kittitas Valley residents formed in 2001 to promote appropriate renewable energy development in our area. KCARES was formed because of the broad local support for wind development in our community, evidenced by a public opinion poll conducted last fall that found two thirds of registered voters in Kittitas County polled supported wind energy development in the county. Please see our website (www.kcares.org) for more details on this survey.

The members of Kittitas CARES appreciate the intensive efforts of the State Energy Facility Site Evaluation Council, the Kittitas County Planning Commission, Board of County Commissioners, and Planning Department to develop an effective, enforceable, and reasonable siting process for wind energy developments in our county. We respect Zilkha Renewable Energy's ultimate decision to apply for a permit for their Kittitas Valley Wind Power Project through EFSEC, and would like to see their application reviewed fairly and expeditiously. To this end, we respectfully request that the Council urge Kittitas County to meet their obligations to the Council in a timely manner.

The revenues generated by this wind project would produce direct economic and environmental benefits for Kittitas County. It would greatly enrich the property tax base of the county (an increase of \$200 million out of a countywide total of \$2.4 billion). It would create hundreds of construction jobs and over a dozen permanent jobs in the community. Many local businesses would benefit from the increased spending on goods and services. An independent analysis commissioned by the Phoenix Economic Development Group confirmed the considerable economic benefits to Kittitas County of this and other proposed wind power projects.

1

The significant increase to the County's tax stream generated by the Project will act to keep local property tax rates down. The Stateline Wind Energy Center, which began operation in 2001, has already allowed Walla Walla County to lower its tax rate. The Phoenix Group study also found that existing wind power projects around the US have caused no decrease in the value of property immediately surrounding wind turbines. A recent national study ("The Effect of Wind Development on Local Property Values" Renewable Energy Policy Project, May, 2003) confirmed that finding, reporting that in many cases contiguous property values actually increased.

2

The Kittitas Valley Wind Power Project would develop under 100 acres out of the over 5,000 acres of land it would cover. That's far less impact than most types of development create.

3

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Zilkha has conducted over a year of wildlife and environmental studies at the site to avoid and predict impacts. Zilkha would also mitigate all habitat disturbance on the site, buying and protecting 2 acres for every 1 acre that is impacted by the wind farm.

4

Appropriate and commercially viable sites for wind projects are extremely limited in Washington because they require a fortuitous confluence of high voltage power lines, interested property owners, and of course, strong winds. Kittitas Valley is fortunate to have three wind farm proposals, and we hope that this proposed project will receive fair consideration for a permit because the state and the region will benefit tremendously from wind power. The more wind Washington develops, the less dependence the state will have on natural gas plants that bring far greater environmental costs and less economic benefits to local communities.

5

The permitting process should be a predictable, fair and effective way to ensure that proposed wind projects are properly sited, not a tool to stall wind development. Please urge Kittitas County to adhere to the deadlines of the EFSEC process so that a decision on this permit can be made in a timely manner.

6

Sincerely,

KCARES Members:

John Barker
Bernice Best
B. Neil Black
Allison Carpenter
Doug Johnson
Kurt and Sandra Johnson-Linder
Martin and Carla Kaatz
Casey Kelley
Tom Morrison
Wayne Neuberger
Mike Nienaber
Juliette and Douglas Palenshus
Gentry Scott
Gerry and Paula Williams
Keith Williams
Helen Wise



Kittitas Valley Wind PP
DEIS Comment - Org. 2

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JAN 16 2004

ENERGY FACILITY SITE
EVALUATION COUNCIL

Allen Fiksdal, Manager
Energy Facility Site Evaluation Council
P.O. Box 43172
Olympia, WA 98504-3172

January 15, 2004

**Northwest Sustainable Energy for Economic Development (Northwest SEED)
Comments on DEIS (released 12/03) for Kittitas Valley Wind Power Project**

Submitted January 13, 2004 by

Thom Wallace, Northwest SEED Director of Communications and Outreach

Northwest Sustainable Energy for Economic Development (Northwest SEED) is a regional non-profit organization working to maximize local benefits from harvesting "home grown" energy resources - wind, solar, biomass, geothermal, low-impact hydro, conservation, and bio-based products - while maintaining reliable electric service and creating new revenue streams and high quality jobs throughout the Pacific Northwest. Our efforts have built community partnerships in Oregon, Washington, Montana, and Idaho. Northwest SEED supports policies and projects, like wind power facilities, that build rural economies and meet the region's power needs through affordable renewable energy generation.

Northwest SEED has monitored the proposed Kittitas Valley Wind Power Project since it was announced nearly two years ago, and we have reviewed those materials made available to the public by both Zilkha and EFSEC regarding this proposal. In our estimation, the Draft Environmental Impact Statement issued last month is an adequate and comprehensive assessment of the project's potential impacts. The DEIS identifies no areas which are predicted to experience significant unavoidable adverse impacts. The proposed wildlife impact mitigation plan is in line with the Washington Department of Fish and Wildlife's guidelines for siting wind power project - in fact, the proposed plan far exceeds the mitigation measures suggested by the WDF&W.

1

Overall, the DEIS is a thorough and well-reasoned document. The authors appear to have done a responsible job of anticipating, preparing for, and mitigating impacts of the proposed project.

2

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Renewable Northwest Project

**Renewable
Northwest
Project**

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Members

- American Wind Energy Association
- Calpine Corporation
- Center for Energy Efficiency and Renewable Technologies
- Citizens' Utility Board
- Eurus Energy America
- FPL Energy, Inc.
- Geothermal Resources Council
- GE Wind Energy
- Green Mountain Energy
- Montana Environmental Information Center
- Montana Public Interest Research Group
- Natural Resources Defense Council
- Northwest Energy Coalition
- Northwest Environmental Advocates
- Oregon State Public Interest Research Group
- PPM Energy, Inc.
- Portland Energy Conservation, Inc.
- Renewable Energy Systems
- SeaWest
- Solar Energy Association of Oregon
- Vestas American Wind Technology, Inc.
- Washington Environmental Council
- Washington State Public Interest Research Group
- Zilkha Renewable Energy

January 20, 2004

Allen J. Fiksdal, Manager
EFSEC
P.O. Box 43172
Olympia, WA 98504-3172

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JAN 20 2004

**ENERGY FACILITY SITE
EVALUATION COUNCIL**

Re: Comments on Kittitas Valley Wind Power Project DEIS

Dear Mr. Fiksdal,

The Renewable Northwest Project (RNP) appreciates the opportunity to comment on the Draft Environmental Impact Statement (DEIS) of the proposed 181.5 MW Kittitas Valley Wind Power Project (KVVPP). RNP is a non-profit organization composed of environmental organizations, consumer groups and renewable energy companies and manufacturers that work together to combat global climate change through the implementation of new renewable resources in the Northwest.

In general, we believe that the DEIS addresses all the potential impacts, including those raised by the local community of the proposed KVVPP. However, we have specific comments on the following sections: the no action alternative; vegetation, wetlands, and wildlife; health and safety; visual resources; communications; cultural resources; and socioeconomic. Our comments are below.

DEIS Comments

Description of no action alternative (pgs. 2-32 to 2-34)

The DEIS assesses the no action alternative—namely, a 60 aMW natural gas plant—and its impact. We believe that the DEIS accurately captures the water and air pollution impacts, but we think that significant adverse impacts of fossil fuel generation could be more explicit. Specifically, the development of a natural gas plant is far more detrimental and destructive than new renewables, such as wind.

Fossil fuels are major sources of acid rain, pollution-caused illnesses, habitat destruction, smog and greenhouse gases. Recent health studies demonstrate that air pollution can lead to birth defects and chronic bronchitis and sicken or kill the elderly and infirm.¹ The burning of fossil fuels is also a primary cause of global warming. According to the US EPA, global warming will alter the

¹ "Air Pollution Harmful to Babies, Fetuses, Studies Say", December 16, 2001, <http://www.lats.com/rights>

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level and temperature of water resources in the Northwest.² This will have negative consequences for wildlife and the agriculture industry.³ A scientific study summarized in the journal *Nature* this month argues that climate change can lead to a million of the world's species to extinction as soon as 2050.⁴

1
cont.

Given the local and global impacts of continuing to rely on fossil fuels for electricity generation, the impact of new renewables, such as wind in comparison can be extremely benign. We hope that when the impact of the proposed KVWPP is being assessed in the DEIS, the benefits of wind for the environment, community and economy are kept in mind.

Vegetation (pgs. 1-14; 3.2-29)

We disagree that the regional extent of lithosol in the valley is quantitatively unknown. While “the precise regional extent of lithosol habitat is not quantitatively known...”, an assessment of the lithosol was conducted by the Applicant’s consultants and based on the data from the assessment, the lithosol impacts would only be an insignificant amount of what is present in the valley.

2

Monitoring and Adaptative Management (pgs. 1-27; 3.2-55)

The Washington Department of Fish and Wildlife (WDFW) Wind Power Guidelines were issued in August of 2003. RNP was a participant in the development of the Guidelines, and based on the discussions, it was our understanding that one year of post-construction monitoring studies would be recommended; and if unanticipated biological impacts become apparent from the first-year monitoring data, then the Technical Advisory Committee would make suggestions to the permitting agency on additional mitigation and/or studies.

3

Acquisition and Enhancement of Onsite Habitat—additional recommended mitigation measures (pgs. 1-28; 3.2-58)

In order to mitigate the impacts to wildlife and habitat, the Applicant proposes to purchase and protect, for the life of the project, approximately 550 acres. Given that the WDFW approved the Applicant’s wildlife habitat mitigation plan⁵ and that the Applicant’s mitigation plan is 57% more than the amount recommended by the WDFW Guidelines, we believe it is unreasonable to require additional mitigation. The Guidelines are considered to be the most stringent in the US and we feel that the Applicant should be commended for obtaining the agency’s approval.

4

² <http://www.epa.gov/globalwarming/impacts/stateimp/oregon/index.html>

³ Whyte, I. (1996) *Climate Change and Human Society*. John Wiley and Sons.

<http://www.epa.gov/globalwarming/impacts/stateimp/oregon/index.html> Global warming will impact Oregon's \$2.5 billion annual agriculture industry. The mix of crop and livestock production in a state is influenced by climatic conditions and water availability. Increased temperatures could shift production patterns northward. Increases in climate variability could make adaptation by farmers more difficult. Warmer climates and less soil moisture due to increased evaporation may increase the need for irrigation. However, these same conditions could also decrease water supplies.

⁴ Kirby, A. “Climate risk to million species.” <http://news.bbc.co.uk/1/hi/sci/tech/3375447>

⁵ September 13, 2003 WDFW letter written to Applicant

We agree that lighting effects should be minimized, however, it should be noted that the Federal Aviation Administration (FAA) has jurisdiction over lighting requirements and the Applicant must comply with FAA rules.

5

Health and Safety (pgs. 1-31; 3.4-7)

The DEIS identifies the risk of ice throw from turbine blades as a potential health and safety risk. We would like to point out that based on our experience in the Northwest, ice throw has not been an issue. As the DEIS states, more than 55,000 wind turbine generators have been installed worldwide, and there have been no reported injuries (pg. 3.4-7).

6

Visual resources—additional mitigation measures (pgs. 1-46; 3.9-51)

We realize that some community members are most concerned with visual impacts of the proposed KVWPP, and therefore we believe the DEIS should place more emphasis on the no action alternative—a potential housing development or a fossil fuel plant. As the DEIS indicates “...the rural character could slowly become more urban” (pg. 3.9-48). We feel that the proposed KVWPP would in fact help slow down urbanization of the area, and hence help preserve the rural character of the area. We think the DEIS should stress that the impact of more housing development will adversely impact the views of the area that current residents are trying to preserve.

7

We believe that the additional mitigation measure to have the Applicant acquire conservation easements on land in important foreground views of the wind turbines is unreasonable given the benefits of wind power projects and the 550 acres the Applicant intends to acquire and protect for wildlife and habitat mitigation. As mentioned above, the Applicant is acquiring and protecting 57% more than what the WDFW Guidelines recommend. In addition, the protection of 550 acres will prevent the area from being converted to other development projects. We are also unaware of fossil fuel projects having the same requirements.

8

Communication systems-mitigation measures (pgs.1-57 to 1-56; 3.13-21)

Based on our experience with wind power projects in the Northwest, we have not encountered the issue of wind projects interfering with cell phone service coverage. In the DEIS, it even states that “degradation of existing cell phone service in the area resulting from the project is unlikely” (pg. 3.13-16). Since the impact is unlikely, we strongly feel that the proposed mitigation measure to conduct an impact study before and after project construction is unnecessary. In addition, in the DEIS for the proposed Desert Claim Wind Power Project, impact studies for potential cell phone interference are not being recommended. We believe that the Applicant’s proposed mitigation measures for mitigating potential impacts to communication interference are adequate.

9

Cultural resources (pgs. 1-43; 3.8-8)

The Applicant has conducted extensive cultural resource surveys, and we think the DEIS could better articulate the studies that have been conducted. The Applicant also has attempted to meet and consult with the Yakama Nation regarding the proposed project, however, the Yakama Nation has yet to respond. Based on the DEIS, we believe that the Applicant has adequately addressed the potential cultural resource impacts—they have conducted extensive cultural resource surveys, made every effort possible to include and

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consult with the Yakama Nation, and proposed a mitigation plan for any unforeseen direct disturbance of cultural resources. We feel that additional mitigation measures are unnecessary.

10
cont.

Socioeconomics-impacts of no action alternative (pgs. 1-43; 3.7-22)

The DEIS states that if the proposed KVVPP were not constructed, the region's power needs could be delivered through the development of a gas plant. The DEIS further assumes that the socioeconomic impacts of the proposed project and a 60 aMW gas plant would "likely be of a similar magnitude." It is inaccurate to say that the socioeconomics of a gas plant is similar to a wind project because wind projects have high capital costs in comparison to a natural gas plant, and thus wind projects pay higher local property taxes to counties.

11

Thank you for considering our comments.

Sincerely,

Sonja Ling
Policy Associate

By Email and First Class Mail

January 20, 2004

Mr. Allen J. Fiksdal
EFSEC Manager
P.O. Box 43172
Olympia, WA 98504-3172

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JAN 20 2004

ENERGY FACILITY SITE
EVALUATION COUNCIL

RE: Residents Opposed to Kittitas Turbines' Comments on the Draft Environmental Impact Statement prepared for EFSEC with respect to the Kittitas Valley Wind Power Project.

Dear Mr. Fiksdal:

This office represents Residents Opposed to Kittitas Turbines ("ROKT"). ROKT has asked us to review the Draft Environmental Impact Statement ("DEIS") prepared by EFSEC in conjunction with the proposed Kittitas Valley Wind Power Project ("Project"). On ROKT's behalf, we contend that the DEIS as currently presented is legally insufficient for the following specific reasons, and we ask that you consider directing further study in the areas identified below prior to any further EFSEC action with respect to Sage Power Partners, L.L.C.'s Project application.

Overview of EFSEC's Legislative Charge and Responsibilities under SEPA

As the DEIS indicates in a number of places, the siting decision that EFSEC has been asked to make will impact both the Project site and the Project area for twenty five (25) to thirty (30) years at a minimum. Further, to the extent that the Project causes any irreversible impacts to any currently existing environmental amenity of the Project site or the Project area, such as the area's use as bald eagle habitat, EFSEC's decision is a decision with impacts that will last forever.

The DEIS makes much of an alleged need for new regional sources of power generation and asserts that sources of renewable power should be preferred to expansion of existing facilities or construction of new conventional facilities more remote location. Nowhere in EFSEC's Legislative charge, however, does the Legislature direct EFSEC to prefer renewable sources over conventional sources. Rather, the Legislature has directed EFSEC to provide for abundant energy at a reasonable cost while preserving and protecting the environment:

... It is the policy of the state of Washington to recognize the pressing need for increased energy facilities, and to ensure through available and reasonable methods, that the location and operation of such facilities will produce minimal adverse effects on the environment, ecology of the land and its wildlife, and the ecology of state waters and their aquatic life.

4-16

Mr. Allen J. Fiksdal
RE: ROKT's Comments on EFSEC's DEIS for Kittitas Valley Wind Power Project
January 20, 2004
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It is the intent to seek courses of action that will balance the increasing demands for energy facility location and operation in conjunction with the broad interests of the public. Such action will be based on these premises: ...

(2) To preserve and protect the quality of the environment; to enhance the public's opportunity to enjoy the esthetic and recreational benefits of the air, water and land resources; to promote air cleanliness; and to pursue beneficial changes in the environment.

(3) To provide abundant energy at reasonable cost.

EFSEC's SEPA rules echo this commitment to protecting the environment, safeguarding rights to a healthful environment, and ensuring that EFSEC decisions balance economic and technical considerations with environmental amenities. First, WAC 463-47-110(1)(a) states that "(t)he overriding policy of the council is to avoid or mitigate adverse environmental impacts which may result from the council's decision". Further, WAC 463-47-110(1)(c) states that EFSEC "recognizes that each person has a fundamental and inalienable right to a healthful environment ...". Finally, the Council's SEPA rules state that EFSEC "shall ensure that presently unquantified environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations." WAC 463-11-630(1)(d).

The DEIS acknowledges that the Project as presently located will result in certain environmental impacts that cannot be mitigated, and tacitly admits that the Project will violate the policies set forth in WAC 463-11-110(a) if the Project is sited as requested by the Applicant. Under these circumstances, EFSEC has authority to reject or recommend rejection of the application. WAC 463-11-110(b)(ii) (stating that the Council may "reject or recommend rejection of the application if reasonable mitigation measures are insufficient to mitigate significant environmental impacts and the proposal is inconsistent with the policies in subsection (1) of this section").

ROKT contends that the DEIS is deficient and legally insufficient on the bases set forth below and that further environmental study must be done to address the issues identified herein. Once that further environmental review is completed, however, ROKT also contends that the Project should be recommended for rejection on the basis of the environmental impacts identified in the DEIS and on the basis of environmental impacts that will be identified through further review.

1

Specific Comments Regarding DEIS Content

The Proposal is Not Properly Defined

The content of environmental documents required under SEPA is set forth in WAC 197-11-060, which EFSEC has adopted by reference through WAC 463-47-020. WAC 197-11-060(3)(a) requires agencies to "make certain that the proposal that is the subject of environmental review is properly defined". WAC 197-11-060(3)(a)(iii) further provides:

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Proposals should be described in ways that encourage considering and comparing alternatives. Agencies are encouraged to describe public or nonproject proposals in terms of objectives rather than preferred solutions. A proposal could be described, for example, as "reducing flood damage and achieving better flood control by one or a combination of the following means: Building a new dam; maintenance dredging; use of shoreline and land use controls; purchase of floodprone areas; or relocation assistance."

Here, the DEIS, following the applicant's lead, frames the proposal under review as "a wind farm to be located in the Upper Kittitas Valley and designed to produce 60 aMW of electricity". Following this erroneous framing decision, the DEIS looks only at the Project and the No-Action alternatives, dismissing other alternatives as not meeting the applicant's needs because the alternatives are either not wind farms or not located where the applicant wants its Project located.

Under WAC 197-11-060, however, the proposal is erroneously described in the DEIS, particularly in light of the nature and quality of EFSEC's authority. From EFSEC's perspective, the important part of the proposal for purposes of EFSEC review is the production of electricity, not where or how the applicant wants that electricity produced. Thus, while the applicant wants EFSEC's approval for its Project in its currently proposed location because it already has a sufficient number of landowners tied into siting agreements for this Project site, EFSEC is charged not with locating an applicant's Project where the applicant wants it located, but with providing sufficient energy for the citizens of Washington at a minimum environmental cost.

Thus, to mirror the language of the example given in WAC 197-11-060(3)(a)(iii), the proposal reviewed in the DEIS should be "producing 60 aMW of electricity, either by construction of the Project, the construction of one of the other two wind farms proposed for Kittitas County, or a wind farm located in some other County or Washington state, or through some other means, such as construction of a new facility of another type or expansion of an existing facility in Washington state or some other jurisdiction". Because it is EFSEC's responsibility to make certain that the proposal is properly defined, EFSEC should direct its consultant to review and revise the DEIS to focus on production of the electricity expected from this facility, which is understood to be 60 aMW, not how or where the applicant intends to produce that electricity.

The DEIS's Discussion of Alternatives is Inadequate

In part because the proposal is not properly described in the DEIS, the DEIS also contains an inadequate statement of alternatives to the Project. An EIS is required to describe and present the proposal and "alternative course of action" pursuant to WAC 197-11-440(5)(a). WAC 197-11-440(5)(c)(vi) requires that the EIS "(d)evote sufficiently detailed analysis to each reasonable alternative to permit a comparative evaluation of the alternatives including the proposed action".

Mr. Allen J. Fiksdal
RE: ROKT's Comments on EFSEC's DEIS for Kittitas Valley Wind Power Project
January 20, 2004
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This EIS is also required to consider and discuss the benefits and disadvantages of acting now rather than acting in the future with respect to the proposal at issue. WAC 197-11-440(c)(vii) states that the Alternatives section of the EIS shall:

4

Discuss the benefits and disadvantages of reserving for some future time the implementation of the proposal, as compared with possible approval at this time. The agency perspective should be that each generation is, in effect, a trustee of the environment for succeeding generations. Particular attention should be given to the possibility of foreclosing future options by implementing the proposal.

As set forth above, the functionally significant aspect of the Project is producing electricity, such that the discussion of alternatives required in this EIS is a discussion of alternative means by which to produce the electricity that the Project will produce. Remarkably, however, the DEIS dismisses out of hand any other means by which to produce the subject electricity, including the production of this electricity solely at one (1) of the two (2) other wind farm sites currently proposed for Kittitas County, and discusses only the Project and the No-Action alternative.

On the one hand, this discussion of alternatives is facially deficient under Washington law for its failure to discuss alternative locations and means for producing this electricity. EFSEC is being asked to site an energy facility and is authorized to locate such a facility anywhere in the State. In these circumstances, EFSEC is required to consider alternative locations for producing this energy. Citizens Alliance To Protect Our Wetlands v. City of Auburn, 126 Wn.2d 356, 366, 894 P.2d 1300 (1995) ("CAPOW"). That EFSEC's authority was invoked by a private applicant makes no difference in this context because EFSEC's siting authority exists to serve the public interest, compare Organization to Preserve Agricultural Lands v. Adams County, 128 Wn.2d 869, 876, 913 P.2d 793 (1996) (AOPAL@), and because its decision is the functional equivalent of a rezone, given the acknowledged inconsistencies between the Project and applicable Kittitas County zoning ordinances. See CAPOW, 126 Wn.3d at 366; see also WAC 197-11-440(5)(d).

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Given the nature of applicant's request and the scope of EFSEC's authority, it is incumbent upon EFSEC to produce an EIS that gives consideration to the minimum reasonable alternative means and sites by and upon which to produce this power, including, but not limited to:

- construction of the Project;
- construction of one of the other two wind farms proposed for Kittitas County;
- construction of a wind farm in some other Kittitas County location;
- construction of a wind farm located in some other County of Washington state;
- construction of a new facility of another type to produce this electricity, whether that facility is located in Kittitas County or some other County of the State;
- expansion of an existing facility in Washington state or some other jurisdiction;
- and

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 RE: ROKT's Comments on EFSEC's DEIS for Kittitas Valley Wind Power Project
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- obtaining the power that the Project is expected to produce through the existing transmission lines identified in the DEIS from an out of state facility. **5 cont.**

Presently, the DEIS sets a standard for locating a wind farm that lacks any basis in law, and then finds that the Project meets that standard, in part by asserting that the applicant meets EFSEC's locational criteria by establishing that it does not have rights to use property other than the property for which the Project is proposed. EFSEC's obligation in producing this EIS, however, involves discussing reasonable alternative locations at which to meet the Project's purpose, not setting criteria that the applicant can meet with respect to location and then finding them met. **6**

On the other hand, the discussion of alternatives that this EIS does identify and examine is also deficient on its face. First, as set forth in greater detail below, the discussion of the Project alternative is deficient throughout the DEIS because the analysis proceeds without any clear detailed statement as to what the applicant actually proposes to build and where. Further, the discussion of the no-action alternative, which simply assumes that the energy not generated by this facility will be generated by a conventional gas-fired turbine facility, is inconsistent with DEIS Table 3.5-2, which identifies thirty-nine (39) proposed new power generation projects, at least fourteen (14) of which are wind power projects other than the Project reviewed here. In any event, given the fluctuating nature of wind power production, the further development of wind power in Washington will necessitate development of conventional energy sources to balance wind power deliveries through existing transmission lines, see Exhibit A, such that, whether the Project is constructed or not, power from conventional sources may still require development. **7**
8
9

In summary, EFSEC must, at a minimum, correct and complete the DEIS by properly defining the proposal under review and by stating and discussing the reasonable alternatives to achieve the Project's purpose, i.e., producing of a modest amount of electricity. Indeed, in light of the numerous new energy facilities currently proposed for construction in Washington state without the Project, a significant aspect of the DEIS correction and completion process, particularly as to the No-Action alternative, should involve a discussion of whether the Project is required to meet Washington's reasonably expected future energy needs. In any event, the redefinition of the proposal and an adequate discussion of alternatives must occur before further action by EFSEC. **10**

The DEIS is Improperly Based on Incomplete Information

Applicant must also be required to develop an actual proposal for EFSEC's review prior to further action on its applicant. WAC 197-11-080 provides:

- (1) If information on significant adverse impacts essential to a reasoned choice among alternatives is not known, and the costs of obtaining it are not exorbitant, agencies shall obtain and include the information in their environmental documents. ...
- (3) Agencies may proceed in the absence of vital information as follows:

- (a) If information relevant to adverse impacts is essential to a reasoned choice among alternatives, but is not known, and the costs of obtaining it are exorbitant; or
- (b) If information relevant to adverse impacts is important to the decision and the means to obtain it are speculative or not known;

Here, EFSEC's DEIS consultant has reviewed a proposal from applicant that does not identify what applicant intends to build or where but presents three (3) possible build out scenarios. In each of these scenarios, the number of turbines and locations of the same will be determined by reference to a variety of studies and decisions that will follow EFSEC approval of the project, including site-specific soil surveys and the type of wind turbines available on the market.

11

This process is wholly contrary to SEPA's fundamental policy of requiring full and complete disclosure and discussion of probable significant environmental impacts at the earliest possible point in a decision making process. Arguably, the location of each individual turbine is a SEPA-significant event to the extent that, as applicant implicitly concedes, the location of individual turbines will depend on conditions that exist on the very site proposed for erection of the same, and to the extent that the location of the turbine strings and individual turbines within that string will depend on the type of turbine that is eventually selected for build out. Whether or not SEPA requires EFSEC to review each turbine site individually, however, it certainly prohibits EFSEC from approving the Project without a statement from the applicant as to what exactly is proposed.

12

EFSEC's costs of obtaining this information are not exorbitant nor are the means of obtaining such information speculative or unknown. Rather, obtaining this information merely requires that (1) EFSEC or the applicant complete the studies and selections that applicant apparently intends to make after approval now, (2) the applicant identify a specific proposal, including the type of turbine and tower height it intends to use in building the Project and the specific location of each such tower in each turbine string for which approval is sought, based on those studies and selections for purposes of EFSEC's environmental review; and (3) EFSEC complete its environmental review based on a complete, concrete proposal from the applicant. Any alternative course, including the course allowed by EFSEC's consultant, is contrary to SEPA.

13

Specific Deficiencies in the DEIS

In addition to the preceding general comments, ROKT offers the following specific comments with respect to particular elements of the DEIS:

Vegetation and Wildlife Element, Section 3.2

The DEIS indicates that the importance of lithosols within the Project area and on the Project site has been identified to EFSEC's environmental consultant. It is further indicated that these lithosols could be located and mapped but have not been located or mapped to date. The mapping of lithosols should be completed and discussed in EFSEC's final EIS, which should

14

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also address Project impacts on the microbiotic crust found in native grassland and shrub-steppe communities of Eastern Washington such as that proposed for development by applicant. **14 cont.**

Further, this Section's discussion of bald eagle impacts is wholly inadequate. The DEIS concludes that no adverse impacts are likely here because no bald eagle fatalities have been reported at any other wind farm. Most obviously, that may be because no other wind farm is located within bald eagle habitat. In any event, it is plain that bald eagle do occur in the area proposed for this wind farm. It is also plain that the presence of increased roosting opportunities, increased carcasses from other birds, changed air patterns associated with turbine propellers, and towers equipped with red flashing lights will all impact the bald eagles that use this area. **15**

Killing a bald eagle under the circumstances presented here would be a crime under Washington law, RCW 77.15.120 (1), and each such death constitutes a separate offense. RCW 77.15.030. Accordingly, and putting aside any consultation requirements that may be imposed by the Endangered Species Act under these circumstances, the Project's impacts on bald eagles must be studied and the final EIS issued on this application must contain a discussion of that study.

Health and Safety, Section 3.4

This Section is deficient for its failure to discuss the noise impacts of the Project on the health of persons who live and work in the vicinity of the Project. The health dimensions of these impacts should be discussed in the same Section that the other health and safety impacts identified in the DEIS are discussed, rather than in a separate Section dealing exclusively with noise impacts. **16**

Visual Resources, Section 3.9

ROKT objects to the wholly subjective and ad hoc view "measurement" process employed by EFSEC's environmental consultant in assessing the view impacts of the Project. Having said that, the impacts discussed in the Section are themselves sufficient grounds to recommend rejection of this proposal insofar as the electricity to be produced by the Project can be generated for the citizens of this State through a variety of methods that avoid these undisputed impacts. **17**

Land Use Element, Section 3.6

The DEIS correctly indicates that the Project is inconsistent with Kittitas County's Comprehensive Plan ("Plan") and zoning code, but the DEIS does not discuss the applicability of provisions in the Plan and the Growth Management Act, RCW 36.70A ("GMA"), relating to Major Industrial Developments to the Project. This deficiency of the DEIS should be corrected. **18**

Commercial wind power utilities of the scale and scope being discussed in Kittitas County, such as the Project, are major industrial developments as that term is used in the Plan and in GMA. Section 2.5 of the Plan permits the approval of "major industrial developments" ("MIDs") in Kittitas County "as authorized by RCW 36.70A.365." As specific to MIDs in rural Kittitas County, such as the Project, Chapter 8 of the Plan states that "(t)he County should consider

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major industrial development in the rural areas according to RCW 36.70A.365." GPO 8.45.

RCW 36.70A.365 does not authorize the Project to be located in rural Kittitas County. That statute allows for the location of a MID relating to a "specific ... industrial ... business" when the business: (a) requires a parcel of land so large that no suitable parcels are available within an urban growth area; or (b) is a natural resource-based industry requiring a location "near agricultural land, forest land, or mineral resource land upon which it is dependent".

As specific to the location of a MID outside of an urban growth area ("UGA"), RCW 36.70A.365(1) sets forth several criteria that must be established, including, but not limited to, a demonstration that an inventory of developable land has been conducted by the County and the County has determined and entered findings that land suitable to site the MID is unavailable within the UGA. Not only has the County not completed this inventory, but it is plain by reference to the Plan that the County has considered locating an MID within the County but will not do so without further planning. Section 2.5 of the Plan states:

Four possible sites have been identified for designation as major industrial developments once appropriate policies have been adopted through the Kittitas County Conference of Governments process and amendments to the County-wide Planning Policies: Thrall area, Bowers Field, Bull Frog Road area and Alpine Veneer site.

This same Section of the Plan continues:

This listing does not in any way designate those listed areas as industrial development sites, nor does it authorize industrial development sites within rural Kittitas County. (MID) sites will only be approved and designated in the future if and when appropriate policies have been developed through the Kittitas County Conference of Government [sic] process, amendments to the County-Wide planning policies have been made, and the Comprehensive Plan has been amended to reflect such amendments.

The DEIS should address the applicability of GMA and Plan provisions relating to major industrial development to the Project and advise the reader that the Project in its presently proposed location will be inconsistent not only with local GMA land use planning and zoning but also with GMA and Plan provisions relating to the location of MIDs within the County.

18
cont.

Further, development of Kittitas County rural lands for wind power is inconsistent with Plan provisions relating to rural lands. Chapter 8 of the Plan deals with rural lands. The lengthy preface to the Chapter includes the following statement:

19

... What are rural lands? The state defines them by default as lands which are not

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urban, UGA, or resource lands. In this county, historically there have been large tracts broken into small divisions, but also small tracts gathered together into larger holdings or farms. Diverse activities have taken place there. Small industries, farms, ranches, mines, saw mills, tree growing, animal keeping(,) holdings of all kinds, guest ranches, dance halls, roadside cafes, gas stations, hotels, agricultural processing plants, feedlots, airports, day care centers, schools, churches, game farms, and conservancies have all located on what the state would call rural lands in Kittitas County.

Section 8.4, entitled Government Services in Rural Lands, addresses the location of utilities in the rural lands of Kittitas County. GPO 8.2 in that Section states:

... Utilities may be sited, constructed, and operated by outside public service providers ... on property located outside of an urban growth area or an urban growth node if such facilities and utilities are located within the boundaries of (a Master Planned) (r)esort or (Fully Contained) (c)ommunity which is approved pursuant to County Comprehensive Plan policies and development regulations.

The DEIS's Land Use discussion is deficient because it fails to indicate the Project's inconsistency with the Rural Lands provisions of Kittitas County's Comprehensive Plan.

19

Finally, the DEIS Land Use discussion is deficient because it fails to indicate that the Project will also be inconsistent with the Utilities Element of the Plan. RCW 36.70A.070(4) specifies that GMA comprehensive plans shall include "(a) utilities element consisting of the general location, proposed location, and capacity of all existing and proposed utilities, including, but not limited to, electrical lines ...". The Kittitas County Plan contains a utility element at Chapter 6.

20

Section 6.1(A) of the Plan defines utilities as regarding the "the supply ... and distribution ... of ... electricity" and indicates that "(s)uch utilities consist of both the service activity along with the physical facilities necessary for the utilities to be supplies [sic]". Section 6.2(A) of the Plan identifies existing electricity utility providers, and Section 6.3(A) identifies "proposed utility facilities". No proposed wind power facility, including the Project, is identified in this Section.

Further, utility development is keyed to local growth in the Plan. Section 6.1(A) of the Plan states:

Local land use decisions drive the need for new or expanded utility facilities. In other words, utilities follow growth. Expansion of the utility systems is a function of demand for reliable service that people, their land uses, and activities place on the systems.

The Project is not directed toward local electricity use but toward generation of electricity for sale elsewhere. To the extent that the proposed wind power development is not driven by local growth, then, the Project, if permitted, would be inconsistent with the Plan. The inconsistencies between the Plan and Project should be identified to the reader of the DEIS but currently are not. 20

More fundamentally, however, the DEIS reader should be advised that locating the Project where the applicant wants it located is not simply a matter of minor inconsistencies between the Plan, the Project and the zoning code. Rather, it is a tacit request that the Council ignore a number of basic land use planning choices that the people of Kittitas County have made for themselves in favor of an applicant that, while maintaining in defense of this application that this location is the only suitable location for its proposed facility in Kittitas County, has a second application pending before EFSEC to construct another facility in another location in the same County. 21

In these circumstances, ROKT contends that the choices made by the citizens of Kittitas County in their Plan should be respected. Whether that outcome is ultimately achieved in this process, however, the DEIS must more fully disclose the conflicts between the Plan and the Project. 22

Cumulative Impacts, Section 3.14

ROKT contends that the discussion of cumulative impacts contained in this Section is inadequate because it fails to examine or discuss: (1) the cumulative impacts of the Project in the context of other presently proposed land use on the Project site and in the Project area; and (2) the cumulative impacts of the Project itself on Kittitas County as a whole over the life of Project and following that life, particularly if decommissioning of the Project is not effectively completed. 23

First, the DEIS is legally inadequate for its failure to survey and address, at a minimum, currently proposed land uses on the Project site. Attached as Exhibits B and C, respectively, is an agreement from Cascade Field and Stream Club ("CFSC") to allow the applicant to place turbines on its property and an application from CFSC for a conditional use permit from Kittitas County to operate a firing range on that property. Certainly, use of CFSC's property for a firing range will have impacts on applicant's use of that property for wind turbines, and vice versa. EFSEC's DEIS should address the cumulative impacts of these potentially incompatible uses, and the uses presently existing or subject to pending application to any permitting authority on all properties that have been identified by applicant as under contract for wind turbine placement. 24

Further, this DEIS's cumulative impacts Section is deficient for its failure to discuss, in one place, the cumulative effects of the Project in its various phases over the entire operational life of the proposal and thereafter, particularly in light of the DEIS's failure to provide any objective and enforceable means by which to ensure that decommissioning occurs at the end of the Project's operational life. Presently, the DEIS improperly piecemeals its discussion of the Project's cumulative effects by presenting construction effects, then operational effects, and then 25

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decommissioning effects. Whether these effects are insignificant by themselves, as the DEIS claims, the sum of construction, operation, and decommissioning, even if properly completed, could be a Kittitas County without wintering bald eagles, or a Kittitas County that is avoided by tourists tired of trying to enjoy the County's scenery through rotating giant wind turbines.

25
cont.

Of course, if the Project is permitted and built but never decommissioned properly, the result is a Kittitas County, in twenty years, or even ten years if wind power loses its appeal before the Project's operational life is complete, littered with non-operational industrial implements that will mar the skyline and impair all other land uses until the resources to remove them are found. EFSEC's DEIS must identify and discuss, at a minimum, what Kittitas County will look like after the project has been built and operated, and either decommissioned or not, in this Section.

26

Concluding Remarks

ROKT is not opposed to the development of renewable energy resources, or even wind power in particular, but believes, correctly, that development of this type can take place in locations that will not involve the certain and identified environmental impacts that this Project in the proposed location will involve. As the location of this project in a manner that minimizes environmental impacts is consistent with EFSEC's mandate, ROKT asks that the DEIS deficiencies identified above be corrected, but, more importantly, that EFSEC uses its authority in a manner consistent with its mandate and recommend rejection of this application on the basis of the Project's environmental impacts, as presently identified and as will be identified with further review.

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Very Truly Yours,

VELIKANJE, MOORE & SHORE, P.S.

TRAVIS W. MISFELDT

EXHIB A

EMPA, Inc.*

September 23, 2002

Wind Energy Economics in the State of Washington

Recently, the Kittitas County Planning Commission in Washington advised County Commissioners to impose at least a six-month moratorium on wind projects in the Kittitas Valley.¹ The concerns that led to the Commission's action are not unique to Washington. They are illustrative of growing concerns about "wind farms" in various parts of the US.²

Growing concerns about "wind farms" underscore the need for government officials at all levels to address a range of issues that are important to electric customers, taxpayers, and citizens concerned about adverse economic impact and impairment of property, scenic and other environmental values.

This analysis identifies the wind projects that have sparked concerns in the Kittitas Valley and provides information on other existing and proposed "wind farms." It then reviews several topics that are important when considering the potential role of "wind farms," including:

- Huge machines; little electricity
- High costs for electric customers
- Windfall profits for "wind farms"
- Losses rather than gains for the local and state economies
- Environmental benefits overstated
- Adverse property, scenic impacts
- Economic, environmental impacts
- Conflicting environmental objectives
- Uphill fight for "wind farm" opponents
- Cautions for landowners
- Help for local governments
- Bonneville Power's role in wind energy
- Costly "green power" programs

Huge Machines; Little Electricity

Windmills making up today's "wind farms" are often huge (Some 300+ ft. The Legislative Building in Olympia is 287 feet). However, they produce very little electricity. For example:

1. Kittitas Valley Wind Project. Zilkha Renewable Energy of Houston, TX plans to build a large "wind farm" near Ellensburg, WA.³ Key facts about the project include the following:

- Zilkha would "...install 100 to 150 wind turbines over 10,000 acres..." with total rated capacity up to 250 megawatts (MW) or 250,000 kilowatts (kW).⁴
- If the rated capacity of the proposed "wind farm" reached 250,000 kW and produces electricity at its full "rated" capacity for 24 hours per day all year long, it would produce 2,190,000,000 kilowatt-hours (kWh) of electricity annually (i.e., 250,000 kW x 8760 hours).
- However, wind turbines produce electricity only when the wind is blowing within a certain speed range. If the turbines produced electricity at a 34% capacity factor,⁵ the total annual output of the "wind farm" would be 744,600,000 kWh (i.e., 2,190,000,000 x .34).

That may sound like a lot of electricity. However, it's equivalent to only 64/100 of 1% of the 117,135,248,000 kWh of electricity generated in Washington during 1999.⁶

Furthermore, the 744,600,000 kWh of potential annual output from the proposed 100 to 150 turbines on the "wind farm" (assuming a 34% capacity factor) would equal only:

- 19% of the electricity produced during 2001 by the 474 MW Hermiston gas-fired combined cycle cogenerating plant (Hermiston, OR) that began service in 1996. That plant produced 3,926,730,000 kWh of electricity during 2001,⁷ operating at a 90+% capacity factor.
- 36.5% of the electricity produced during 2001 by the 262 MW Tenaska plant (Ferndale, WA) gas-fired combined cycle cogenerating plant⁸ that began service in 1994. That plant produced 2,039,071,000 kWh of electricity during 2001,⁹ also operating at a capacity factor of about 90%.
- 15% of the electricity that will be produced each year by Calpine's 630 MW gas-fired combined cycle plant at Hermiston, OR, that began commercial operations in August 2002, if that plant operates at a 90% capacity factor.

Generally, gas-fired combined-cycle generating units are "dispatchable," which means that they produce electricity when needed by electric customers, not just when the wind is blowing within the right speed range. Such plants occupy relatively few acres while Zilkha indicates that its proposed "wind farm" would stretch over some 10,000 acres.

The area identified for the "wind farm" on Zilkha's web site appears significantly larger than 10,000 acres which suggests that many landowners might be affected by the presence of the windmills but only a few of them would receive rental income.

2. Possible EnXco project. Apparently, a second wind energy developer, EnXco, is also exploring the possibilities for a "wind farm" in the Kittitas Valley but has not yet detailed its intentions. EnXco, a firm headquartered in Sickeborg, Denmark, serves in a variety of capacities in the wind industry and could be planning its own "wind farm" in the area or may be doing development work for another company.

3. Other State Wind Farms. Washington's other existing and planned "wind farms include:

- The 178.2 MW portion of FPLEnergy's Stateline Wind Energy Center in Walla Walla County. If that portion of the "wind farm" operates at a 33% capacity factor,¹⁰ it would produce 515,140,560 kWh of electricity per year (i.e., $178,200 \times 8760 \times .33\%$). That output of electricity would equal 44/100 of 1% of Washington's total 1999 electricity generation.
- The 48.1 MW Nine Canyon Wind Project under construction in Benton County. If that "wind farm" operates at a 34% capacity factor,¹¹ it would produce 143,261,040 kWh of electricity per year (i.e., $48,100 \times 8760 \times .34$), equal to 12/100 of 1% of Washington's 1999 electricity generation.

The status of other potential "wind farms" apparently is uncertain – as discussed in more detail under the heading of Bonneville Power's role in wind energy.

High Costs for Electric Customers

Wind industry advocates readily admit that electricity from windmills costs more than electricity from traditional energy sources; i.e., natural gas, oil, coal, hydropower, and nuclear energy. (Otherwise they would not need the extremely generous federal subsidies – discussed below – that are contributing to windfall profits for "wind farm" developers.)

However, wind energy advocates in the US Department of Energy (DOE) and the wind industry seem eager to avoid admitting the true costs of wind energy. In fact, the true costs for electricity from "wind farms" – which costs end up in electric customers' monthly bills – include:

- a. The price paid by the electric utility to the "wind farm" owner for the electricity.
- b. The cost of providing "firming" or "balancing" services for the intermittent electricity from the wind turbines. Wind turbines produce electricity only when wind speed is within certain limits – and then on a variable (sometimes volatile) basis. Other generating units must be kept immediately available to back up the wind turbines so that customers' electricity requirements are served and to keep the grid system in balance. This backup role may be served by hydropower, but often by combustion turbines, combined-cycle or steam electric units powered by coal, oil or natural gas that are running at less than peak efficiency or in "spinning reserve." This backup service costs money and that cost is a real part of the true cost of wind energy.
- c. The capital and operating cost of transmitting the electricity from the point where it is purchased from the "wind farm" owner to the electric distribution system. Such transmission and associated grid management costs may be higher for electricity from intermittent, volatile sources such as wind than for electricity from stable, dispatchable generating units.
- d. The normal capital and operating costs of a utility's electric distribution system (e.g., substations, wires, transformers, meter reading, billing and other customer service costs).

If the total costs of electricity from wind were only \$0.02 per kWh (a low estimate) more than electricity from other sources, the added annual cost imposed on electric customers in Washington for a 250 MW "wind farm," such as that being proposed by Zilkha, operating at a 34% capacity factor, would be \$14,892,000 per year (i.e., 744,600,000 x \$0.02). Such extra costs for electric customers will increase if still more "wind farms" were added in Washington.

"Windfalls" for "Wind Farm" developers

The above costs are NOT the full costs of electricity from "wind energy." The federal government now provides two extremely generous tax shelters for "wind farm" developers. These subsidies shift costs from wind energy developers to remaining taxpayers.

- a. One extremely generous subsidy available to corporations with income to shelter is 5-year double declining balance accelerated depreciation available for facilities using wind to produce electricity. "Wind farm" owners can recover their capital investment in 5 to 6 years with over half recovered in the first 2 years or less. Specifically, if the capital cost of the 250 megawatt "wind farm" being considered by Zilkha were \$250,000,000, the recovery through depreciation would be as follows (see IRS Publication 946):

Year	% of investment Recovered	Amount Recovered
First	20%	\$ 50,000,000
Second	32%	\$ 80,000,000
Third	19.2%	\$ 48,000,000
Fourth	11.52%	\$ 28,800,000
Fifth	11.52%	\$ 28,800,000
Sixth	5.76%	\$ 14,400,000
Total	100%	\$ 250,000,000

- b. The second generous federal subsidy available to “wind farm” owners is the Production Tax Credit of \$0.018 per kWh of electricity generated during the first 10 years of a wind project’s life. Zilkha’s 250 MW “wind farm” planned for Kittitas Valley would receive a tax credit of \$13,402,800 per year if the turbines produce at an average 34% capacity factor (i.e., 250,000 kW x 8760 hrs. x .34 x \$0.018).

Organizations owning “wind farms” must have substantial taxable income to take advantage of these two federal tax shelters. That is one reason why “wind farm” developers often sell off their projects to larger companies early in the life of their projects. For example, Entergy Corporation purchased a majority interest in the Top of Iowa “wind farm” that was developed by Zilkha Renewable Energy and another firm.¹² However, Zilkha apparently has retained ownership of many of the “wind farms” the company has developed, thus suggesting that the firm and/or its owners have sufficient, otherwise taxable income to profit from the federal income tax shelters.

In addition to the generous federal tax shelters, the State of Washington provides at least two significant subsidies to “wind farm” developers and/or owners:

- An exemption from the state’s sales and use tax for “...machinery and equipment used directly in generating electricity using...[and]...sales of or charges made for labor and services rendered in respect to installing such machinery and equipment...” using wind energy.
- A mandate that all electric utilities (public and investor owned) offer their customers an option to purchase electricity generated from renewable sources. In effect, this requirement forces utilities to arrange for purchases of energy from “renewable” sources even if the electricity costs more than traditional sources and/or the full cost of the purchases cannot be recovered from utilities’ customers who agree to pay a premium price to exercise the option.

In fact, all federal and state subsidies shift costs and/or tax burden from “wind farm” developers and owners to taxpayers who must continue to pay taxes and/or to electric customers. The added burden and costs are then hidden in tax bills or monthly electric bills.

All the federal and state subsidies for “wind farm” developers and owners are *in addition to* the revenue received by the “wind farm” owner for the sale of electricity. For example, if the 250 MW “wind farm” being planned for Kittitas Valley were to produce at a 34% capacity factor (i.e., 744,600,000 kWh) and the electricity were sold to an electric utility for \$0.03 per kWh, the “wind farm” owner would receive \$22,338,000 each year for that electricity (i.e., 744,600,000 x \$0.03).

Losses rather than gains for local and state economies

“Wind farms” are often presented as beneficial to states or regions where they are located because of additional jobs in the area and additional income for the landowners who lease land for the windmills, substations, cables, meteorological facilities, support facilities and transmission lines. However:

- a. The amount paid landowners for land rental or easements may not be significant. Amounts would depend on negotiations among the parties. Research indicates that landowners in Wisconsin were offered as much as \$5,000 to \$10,000 per turbine. Assuming 150 turbines at \$5,000 each, landowners would receive a total of \$750,000 per year.

If landowners accepted lower payments, say \$2,000 per turbine, annual income would total only \$300,000.

- b. The number of lasting jobs may be quite small. Bonneville Power Administration has indicated that the proposed 150 MW Maiden Wind Project in Benton County would require an average of 150 temporary employees during construction with wages of \$15 - \$25 per hour and, when in operation, "up to 15" full time employees for operations and maintenance with wages of \$10 to \$25 per hour.¹³ Assuming construction lasted 6 months and wages averaged \$20 per hour, construction wages would total \$3,120,000. (Some of the employees would come from the local area.) Assuming 15 full-time employees after construction at \$20 per hour, the annual wages would total \$624,000 (i.e., 2080 hrs. x \$20 x 15).¹⁴

The brochure on the Kittitas Valley Project distributed by Zilkha indicates that only 6 to 8 permanent employees would be required. If so, the annual wages would total about \$332,800 (i.e., 2080 hrs x \$20 x 8).

- c. The rental and easement payments received by landowners and wages earned by permanent workers would be dwarfed by the higher cost for the electricity that would be paid by electricity consumers. Specifically:
- 1) If the electricity from the proposed Kittitas Valley Wind Project, for example, cost only \$0.02 per kWh more than electricity from traditional sources, the added annual burden on electric customers would be \$14,892,000 per year (i.e., 744,600,000 kWh x \$0.02)
 - 2) Fifteen permanent jobs might produce \$624,000 per year, or 4.2% of the added burden on electric customers. Eight permanent jobs might produce \$332,800 or 2.2% of the added burden on electric customers.
 - 3) Land rental payments for the windmills and associate facilities might provide an additional \$750,000 per year to local landowners if each turbine produced \$5,000 annual payments – which is about 5% of the added burden on electric customers. If landowners agreed to only \$2,000, the annual total of \$300,000 would be about 2% of the added burden on electric customers.
- d. Owners of the "wind farm" apparently would pay significant amounts of property tax but apparently county tax revenues are limited to a 1% increase per year.¹⁵ Therefore, other property owners in the county might, temporarily, receive a small tax reduction. The real impacts on landowners would be difficult to predict because of potential adverse impacts on property values discussed later.

Calculations could be done for other existing and proposed wind farms but would produce a similar result. The net economic impact would almost certainly be an outflow of wealth from Washington for the benefit of out-of-state or foreign wind energy developers and owners.

From the perspective of Washington's electric customers who would bear the higher costs of electricity produced from wind turbines, it might be far better if a small (though distasteful) tax were added to electric bills and used to pay landowners to AVOID hosting the windmills!

Environmental benefits of "wind farms" often overstated by developers

"Wind farm" developers often claim that the electricity generated by the wind turbines will displace on a kWh for kWh basis electricity that would be generated by fossil-fueled generating

units and any associated emissions. Such claims are generally exaggerated. For example, they do not take into account the facts that:

- In Washington, some of the electricity “displaced” may be produced from hydropower (which supplied 84% of Washington’s electric generation in 1999).
- Any fossil-fueled generating unit that is kept available to back up the intermittent electricity from the wind farm will be giving off emissions while it is running at less than peak efficiency or in “spinning reserve” mode.

Neither do they take into account the fact that other alternatives for reducing emissions may be far more cost-effective.

Adverse Property, Scenic, Economic, Environmental and Related Impacts

Except when placed in remote areas, proposed “wind farms” are facing growing citizen opposition in Europe, Australia and in nearly every state in the US where “wind farms” are being proposed. Opposition seems particularly strong when attempts are made to install the large structures in areas where there are existing or planned homes or in scenic areas and where many property owners are affected but only a few receive payments from “wind farm” owners.

Opposition is due to a variety of concerns including scenic and property value impairment, noise, bird kills, “flicker” effect of spinning blades after sunrise and before sunset, potential safety hazards from blade and ice throws, interference with telecommunications, and higher costs of electricity. Apparently some citizens of the Kittitas Valley are also concerned about potential adverse impact on tourism. The Ellensberg web site¹⁶ makes clear that tourism is important and Zilkha’s web site suggests the area proposed for the Kittitas Valley Project is one of considerable natural beauty.

Preparation of an Environmental Impact Statement (EIS) on the proposed Kittitas Valley project undoubtedly would require consideration of many of these matters. However, citizens and government officials should recognize that the potential impairment of property values, scenery and tourism are inherently difficult to evaluate in advance. Often the impact of a large development such as a “wind farm” on property values does not become clear until after the project is in place and neighbors try to sell their homes and property. Similarly, the lasting impact on tourism or on the willingness of people to live, invest, or work in the area does not become known until after the project is in place, and after the curiosity value or “novelty” of a project wears off.

Assessing adverse scenic impact of “wind farms” is considered difficult because views on the matter are often considered to be “in the eye of the beholder.” However, there is no doubt that some people consider the adverse scenic impact of windmills to be significant. For example, one Oregon resident was recently quoted in the Tri-City Herald, after driving by the Stateline Wind Energy Center, as saying “Could anyone think it’s anything other than Ugly?” and “How is it different than wanting to put up a big ugly billboard?”¹⁷

Difficulty in quantifying adverse impacts: incoherent government efforts

The difficulty in quantifying scenic, property and certain other values is illustrated in other cases. For example, environmental advocates have charged that haze that is believed to be due to emissions from burning of fossil fuels or from dust from roads, mining and other activities is

detrimental to scenic and other environmental values and has an adverse economic impact. A variety of approaches, including a technique called "contingent valuation," have been proposed as ways to quantify the adverse visual and related economic impacts, but none of the approaches have been fully satisfying.

While the value of the adverse visual impacts have not been quantified objectively, substantial efforts, backed by federal legislation and EPA regulations, are underway to find measures that can be taken to reduce the unwanted haze. In fact, a massive effort by the "Western Regional Air Partnership" (WRAP),¹⁸ which includes representatives of most western states (including Washington), tribes, and federal agencies is considering measures to force additional use of renewable energy sources, particularly wind energy.

Ironically, the participants appear to be attempting to address one visual issue, haze, while ignoring the visual impact of tens of thousands of windmills and many miles of transmission lines that would be needed to achieve the group's goals of getting 20% of electricity generation from "renewable" energy sources by 2018.¹⁹

"Wind farm" opponents are at a disadvantage

Electricity customers and taxpayers concerned about extra costs, neighbors of proposed "wind farms" concerned about impairment of property values, or citizens concerned about scenic impairment or other adverse environmental and safety impacts have a significant disadvantage when dealing with proposed "wind farms."

The U.S. Department of Energy, the National Renewable Energy Laboratory, and the wind energy industry have been highly successful, despite the facts, in presenting wind energy as an environmentally benign energy source that could make a significant contribution in supplying the nation's electricity. In addition to the generous tax shelters and other subsidies, they have created a popular wisdom in the public, media, US Congress and state governments that wind energy is a "win-win" proposition. Furthermore, local governments that are faced with proposals from aggressive wind energy developers are often not equipped to deal with "wind farm" permit applications.

Therefore, electric customers, taxpayers and other citizens should recognize that they will be facing strong opponents, often financed with tax dollars, when they attempt to oppose "wind farms" affecting their property and scenic values or economic wellbeing. Citizens opposing the planned projects might be forgiven for wondering where their government representatives were when these lucrative arrangements for "wind farm" developers were made!

Cautions for landowners approached by "wind farm" developers

Landowners who lease their land for the windmills would receive added income but they may want to be very cautious about the arrangement they make with developers. For example:

- a. What are reasonable annual payments for use of the land needed for windmills and associated facilities (e.g., substations, cables, meteorological stations, support facilities)? Apparently, developers offer \$2,000 or \$2,500 per MW of turbine capacity. However, research suggests that developers in Wisconsin have offered as much as \$5,000 to \$10,000 annually per MW of capacity.

- b. What other payments are reasonable? For example, should owners of land that must be crossed by transmission lines or cables be compensated on an annual basis for such uses or easements? What is an appropriate one time or annual payment for a noise easement?
- c. Should local governments be paid to cover any extra costs for services (roads, etc.)?
- d. Should landowners receive fixed annual payments or payments based on electricity produced?
- e. Should payments for the life of a lease or easement be paid "up front," placed in escrow, or paid annually?
- f. What arrangements should be made for removal of the windmills and restoration of land when they no longer operate?
- g. What are the limits of the liabilities of the organizations that develop and/or own the windmills?
- h. Who really employs the people who approach landowners and local government officials?

The last five questions may be particularly important because:

- 1. "Wind farm" developers often sell off their projects during the development phase or shortly thereafter. Landowners and local government officials should recognize that they might end up dealing with a "wind farm" owner that is not the initial developer.
- 2. The developers and/or owners of wind farms may be organized in a way that limits their liability. The Limited Liability Corporation (LLC) seems especially popular with the wind industry.
- 3. The economics, including longer-term costs, of wind energy are far from certain. For example, calculations of the kWh costs of electricity from wind turbines that are cited by DOE, DOE laboratories, and the wind industry are often based on an assumption of a 30-year lifetime for the wind turbines. However, no one has sufficient experience with large wind turbines to know how long they will last or what their maintenance, repair and replacement costs, or the extent of performance loss will be as turbines age. Economics may dictate abandonment of individual windmills or entire "wind farms" before the end of land rental contracts or current estimates of the useful life of the turbines.
- 4. "Wind farm" owners may have a strong incentive to sell off or abandon their projects once tax benefits have been captured (5-6 years for accelerated depreciation; 10 years for production tax credits), turbine performance deteriorates, and/or operating and maintenance costs escalate.

Perhaps landowners should insist upon payments in advance, or that the full amounts be placed in escrow or covered by cash bonds.

Help for local governments: Model Zoning Ordinance

Unfortunately, it appears that very few local governments have adopted ordinances that prescribe proper conditions for siting of "wind farms." All too often, local government bodies do not have the expertise or resources to deal with proposed "wind farms" and seem overwhelmed by aggressive, well financed "wind farm" developers. Ideally, ordinances addressing the complex

environmental and safety issues and providing specific standards for "wind farms" should be in place before citizens and officials are faced with proposals from wind energy developers.

Local governments that have not yet adopted ordinances may want to consider a model "Commercial Wind Energy & Wind Access Model Ordinance" prepared in January 2002 by Catharine Lawton (CMLawton3@aol.com), a member of the Planning Commission of the Town of Barton, WI. Apparently, the ordinance was developed in connection with her work with a Wisconsin Public Service Commission's Subcommittee known as "Guidelines and Model Ordinance Ad Hoc Subcommittee of the Wisconsin Wind Power Siting Collaborative."

Bonneville Power's role in wind energy

Actions by the Bonneville Power Authority (BPA) undoubtedly will be important in determining the nature of "wind farm" development in the Pacific Northwest in terms of (a) the commitments to purchase electricity from additional "wind farms," (b) the impacts of intermittent electricity from "wind farms" on electric grids, and (c) the true costs of electricity from wind energy.

1. Potential BPA Purchases from additional "wind farms." BPA has been active in promoting wind energy for several years, including purchases of electricity from "wind farms" in Oregon and Wyoming. BPA mounted a very aggressive effort in February 2001 to sign up 1,000 MW of new wind power.²⁰ In March 2001, BPA issued a formal request for proposals along with draft "Predevelopment" and "Power Purchase" agreements. In May 2001, BPA announced that it was working with Washington Winds Inc. to develop a 150 MW "wind farm" in Benton and Yakima Counties.²¹

On June 28, 2001, the Secretary of Energy announced that BPA has selected seven "wind farm" proposals for negotiation of "Predevelopment" agreements, including five additional "wind farms" in Washington²² and two in Oregon. In December 2001, DOE Secretary Abraham announced that it would purchase 34% of the output of FPLEnergy's Stateline "wind farm" located on both sides of the Oregon-Washington border near Walla Walla, an amount roughly equal to BPA's earlier purchases from Oregon and Wyoming "wind farms."

BPA's aggressive actions to sign up "wind farms" appeared to be driven by the 2000-2001 drought conditions in the northwest (sharply reduced hydropower production), high electricity prices and, perhaps, pressure from DOE headquarters in Washington to promote wind energy.

As excitement in the wind industry about potential BPA purchases grew, BPA apparently began to worry about the aggressive actions of "wind farm" developers. On September 20, 2001, BPA issued a press release warning that "Throughout eastern Oregon and Washington, wind power developers, lawyers and speculators are pressing landowners to sign leases for rights to wind generation. Landowners need to learn quickly how to evaluate and secure the value of their wind resource."

Meanwhile, the electricity situation in the Pacific Northwest changed dramatically as drought conditions lessened, significant new gas-fired generating capacity was brought on line, and wholesale electricity prices dropped sharply. A BPA spokesman recently stated that "Wind power hasn't been economical for the past six months, since power prices in the region have fallen after the incredible spikes of 2000-2001." He also stated that "Of the wind power that the agency has bought, reliability has been 'spotty,' with an availability of wind power in the range of 20-25percent, far below the 30-35 percent availability the industry has touted. What's more,

wind farms generally need generating support from other – often fossil – sources, and are not useful in supplying peaking power.”²³

Earlier this year, BPA began facing severe financial problems and seeking a way to reduce costs. On July 2, 2002, the BPA Administrator announced plans to share information about financial problems and seek input from citizens and officials throughout the areas BPA serves.

As a part of its campaign, BPA released information on costs of its “renewables” program for a “Financial Choices Workshop” planned for September 17, 2002.²⁴ The document outlines two alternatives but makes clear that neither alternative would produce enough revenue to cover the multi-million dollar program BPA renewables program (including the cost of purchases of electricity from “wind farms”). In fact, four “wind farms” totaling 430 MW on the BPA “short list” announced by the DOE Secretary are omitted in both plans. The 150 MW Maiden Wind Project is included in the “Current Level” alternative but dropped in the “Reduced Level” alternative.

Both program alternatives result in significant losses (expected revenues do not cover costs), but losses are somewhat less in the “Reduced Level” program.

Recent news stories indicate that some utilities in the Northwest, as well as BPA itself, are concerned about the high cost of BPA’s renewables program.²⁵ Furthermore, as it prepares to develop its Fifth Power Plan to be published in early 2003, the Northwest Power Planning Council has identified a number of issues for comment. One issue concerns the role of BPA in future “resource development” (i.e., procurement of electricity for BPA’s wholesale customers).²⁶

2. Integration of Electricity from Wind Energy in Electric Grid and Associated Costs. As indicated earlier, part of the true costs of wind energy are costs (a) associated with providing backup generation because the electricity output from wind energy and (b) imposed on transmission systems and grid management – with both types of costs due to the intermittent and volatile nature of the electrical output from “wind farms.”

Until July 2002, BPA has imposed an extra charge of \$100 per MWh (or \$0.10 per kWh) on operators of electric generators – including wind generators – that failed to deliver electricity at the time it was scheduled. Under strong pressure from the wind industry and DOE, BPA has eliminated that charge for wind generators. However, wind generators will still be required to pay the cost of the power provided by BPA to make up the difference between the schedule and actual generation.²⁷

It is important to recognize that none of the extra costs associated with wind energy, including the cost of backup generation, transmission and grid management “go away.” Any of those costs not borne by “wind farm” owners are shifted to electric consumers.

To its credit, BPA is devoting resources to efforts to address the problems, burdens and costs associated with integrating volatile and intermittent “wind farm” electricity into the electric grid. Specifically, BPA is providing a significant share (\$227,000) of the funds to support a Utility Wind Interest Group (UWIG) effort to determine the impacts of electricity from “wind farms” on electric grids.²⁸ This study, a related study by Electrotek for the Electric Reliability Council of Texas (ERCOT), and a BPA funded wind integration study by Eric Hirst should be helpful in both understanding the impacts and the additional costs due to electricity produced by wind energy.

Costly “Green Power” Programs

All electric utilities in Washington with 25,000 or more metered customers are now required to provide customers at least one option to purchase power generated from renewable sources. If “green power” programs worked according to theory, a significant portion of the higher costs of electricity from wind and other renewable sources might be borne voluntarily by electric customers who choose to pay extra for so-called “green energy” programs. However, the theory seems not to be working. A recent study by a non-profit group, Renewable Northwest Project,²⁹ demonstrated that:

- Less than 2% of electric customers in the whole Northwest signed up to pay the extra cost.
- The electricity for which the customers signed up is only a tiny share of the total electricity sold in the region covered by the report.

Unfortunately for taxpayers and for electric customers who ultimately bear all the cost incurred by their electric utilities:

- “Green power” programs are expensive to administer and the revenue collected seldom if ever pays the full costs (i.e., the higher cost of the “green” electricity and costs of administering the program), so costs not recovered are passed on to other electric customers.
- Emissions that are avoided are truly insignificant and less than often claimed because of the overstatement of environmental benefits from wind energy described earlier in this analysis.
- The cost of premium prices paid by government entities for “green power” is passed on to taxpayers.

Low participation rates are probably due to (a) reluctance of most customers to pay more than necessary for electricity, (b) customer realization that any beneficial environmental impact would be tiny, at best, and (c) citizen realization that utilities have undertaken the programs as a way to appear environmentally friendly and/or because they have been forced to do so.

* * *

* This analysis is provided as a public service and without charge by Glenn R. Schleede, Energy Market & Policy Analysis, Inc. PO Box 3875, Reston, VA 20195-1875; Phone: 703 709-2213; Email: EMPAInc@aol.com. Schleede is semi-retired after spending more than 30 years on energy matters in the federal government and private sector. He now spends part of his time on self-financed analysis and writing about:

- a. Government policies, programs and regulations that are detrimental to the interests of consumers or taxpayers.
- b. Government or private programs and projects that are presented to the public, media, Congress and other government officials in a false or misleading way.

The views presented in this analysis are provided in Schleede’s role as a citizen, consumer and taxpayer and are not on behalf of any client or other interest.

Endnotes:

¹ *Electricity Daily*, “Wash. County Spins Around on Wind,” September 5, 2002, p.1.
² States where strong citizen opposition to proposed “wind farms” has emerged include Maine, Massachusetts, New York, Pennsylvania, Michigan, Illinois, Wisconsin, Nevada and California.
³ Zilkha Renewable Energy web site, “What We’re Doing,” September 17, 2002: <http://www.zilkha.com/whatweredoing.asp>.

⁴ Ibid.

⁵ The Northwest Power Planning Council assumes that most wind turbines in Washington and Oregon will have capacity factors of 33% or 34%. A generating unit's capacity factor is the actual kWh of electricity produced during a year divided by the total rated capacity in kW times 8760 hours per year.

⁶ Data Source: US Energy Information Administration (EIA), State Electricity Profiles: Washington, Table 1. Data for 1999 were used instead of 2000 because 2000 was so abnormal due to drought and low hydro availability. Final 2001 statewide data are not yet available for 2001 from EIA.

⁷ US EIA, Form 906B Data Base, 2001.

⁸ <http://www.tenaska.com/Projects/Ferndale/ferndale.htm>.

⁹ US EIA, Form 906B Data Base, 2001.

¹⁰ The percentage assumed by the Northwest Power Planning Council.

¹¹ Ibid.

¹² American Wind Energy Association, Wind Energy Weekly, January 18, 2002.

¹³ Bonneville Power Administration, draft Environmental Impact Statement for proposed Maiden Wind Project, paragraph 3.11.4.2 and 3.11.4.3. http://www.efw.bpa.gov/portal/Organizations/Government/Federal/Dept_of_Energy/BPA/Environment/NEPA/MaidenWindFarm/MWF_TOC.htm.

¹⁴ FPLEnergy estimated a similar number of employees for the much larger (450 MW) project originally planned for the Stateline Wind Energy Center. <http://www.fplenergy.com/news/2001/contents/00154.shtml>.

¹⁵ Zilkha web site, "What We're Doing," September 17, 2002: <http://www.zilkha.com/whatweredoing.asp>.

¹⁶ <http://www.ellensburg.ws/>.

¹⁷ FPLEnergy, Op. Cit.

¹⁸ Information can be found at www.wrapair.com.

¹⁹ WRAP documents do not appear to justify the heroic assumption that the cost of electricity from "renewable" sources will be reduced by some 30% during the next 15 years. While unclear, WARP analyses do not appear to take into account the costs of either added transmission lines that would be needed or the higher costs of transmission and grid management associated with large amounts of electricity from intermittent wind sources.

²⁰ Bonneville Power Administration (BPA) press release, "BPA solicits new wind power projects," February 22, 2001.

²¹ BPA, "Wind Farm Blows into Mid-Columbia," May 4, 2001.

²² Two 150 MW "wind farms" in Klickitat county and one 100 MW "wind farm" in Columbia County proposed by SeaWest Windpower, an 80 MW project in Klickitat County proposed by Cielo Wind Power, a 150 MW project in Benton County proposed by Pacific Winds (Washington Winds), and two projects in Oregon.

²³ *The Electricity Daily*, September 17, 2002, p. 1.

²⁴ http://www.bpa.gov/Power/PL/FinancialChoices/09-17-2002_Workshop_Handout2.pdf.

²⁵ An article by Chris Mulick in the Tri-City Herald on May 28, 2002, indicates that some utility managers want BPA to scale back on its high-cost investments in renewables and quotes the manager of the Franklin County Public Utility District as stating that "Given the rates, our stomachs are kind of full of expensive renewable resources." Also, a BPA spokesman has expressed concerns about the high cost of wind energy in *The Electricity Daily*.

²⁶ Northwest Power Planning Council, Issues for the Fifth Power Plan, February 6, 2002, pp. 20-22.

<http://www.nwppc.org/library/2002/2002-1.pdf>.

²⁷ BPA Press Release, "Wind farms get a boost from BPA," July 25, 2002.

²⁸ Electrotek Concepts, "A proposal for characterizing the Impacts of Significant Wind Generation Facilities on Bulk Power System Operations Planning," January 2000.

²⁹ http://www.rmp.org/htmls/Powerful%20Choices%203_web.pdf.

KITTITAS VALLEY WIND POWER PROJECT

**Land Owner Consent to Application for Sub-Area Comprehensive Plan Amendment,
Rezzone, Development Agreement and Wind Farm Permit**

**Misty Miller
Cascado Field and Stream
P.O. Box 424
Cle Elum, WA 98922**

Name and Address of Landowner

Tax Parcel No. 19-17-21000-0001

County Assessor's Tax Parcel Number(s)
(Legal Description attached)

I am the landowner shown above. The Applicant, Sagebrush Power Partners, LLC, is applying for a sub-area comprehensive plan amendment, rezzone, development agreement and wind farm development permit from Kittitas County as part of the Energy Facility Site Evaluation Council (EFSEC) process, for approval of the Kittitas Valley Wind Power Project. My property, identified above, is included in the Project.

I am familiar with the information contained in the application(s), and to the best of my knowledge and belief, such information is true, complete and accurate. I consent to, and join in the application(s) filed with Kittitas County and EFSEC for all actions and permits related to the Kittitas Valley Wind Power Project. I hereby grant to the agencies to whom the application(s) is/are made the right to enter the Property described herein to inspect the proposed and/or completed work. I certify that I possess the authority to join in this application.

Misty Miller
(Signature of Landowner)

5/9/03
Date

Parcel-01-2100002.1 0050002-00001

Cascade Field and Stream Club
Monty D. Miller, Club President
PO Box 424
Cle Elum, WA 98922
Phone No. 509-674-9278

Legal Description:

The property consists of approximately 182 Acres of land located in Kittitas County, Washington State, and more specifically described as follows:

All of that portion of Section 21, lying east of the County road and lying East of the Easterly boundary of the Kittitas Reclamation District Canal, Township 19 North, Range 17 East, W.M.

Kittitas County Tax Parcel No.19-17-21000-0001.

**KITTITAS COUNTY COMMUNITY DEVELOPMENT SERVICES
DEVELOPMENT ACTIVITIES APPLICATION**

PLEASE TYPE OR PRINT CLEARLY IN INK. ATTACH ADDITIONAL SHEETS AS NECESSARY. THE FOLLOWING ITEMS MUST BE ATTACHED TO THIS APPLICATION PACKET:

- ADDRESS LIST OF ALL LANDOWNERS WITHIN 300' OF THE SITE'S TAX PARCEL. IF ADJOINING PARCELS ARE OWNED BY THE APPLICANT, THE 300' EXTENDS FROM THE FARTHEST PARCEL. IF THE PARCEL IS WITHIN A SUBDIVISION WITH A HOMEOWNERS OR ROAD ASSOCIATION, PLEASE INCLUDE THE ADDRESS OF THE ASSOCIATION. PREVIOUSLY SUBMITTED.
- SITE PLAN OF THE PROPERTY WITH ALL PROPOSED: BUILDINGS; POINTS OF ACCESS, ROADS, AND PARKING AREAS; SEPTIC TANK AND DRAINFIELD AND REPLACEMENT AREA; AREAS TO BE CUT AND/OR FILLED; AND, NATURAL FEATURES SUCH AS CONTOURS, STREAMS, GULLIES, CLIFFS, ETC. (PLAT APPLICATIONS EXCLUDED) ATTACHED, EX. A-1.
- KITTITAS COUNTY ENCOURAGES THE USE OF PRE-APPLICATION MEETINGS. PLEASE CALL THE DEPARTMENT TO SET UP A MEETING TO DISCUSS YOUR PROJECT.

THIS DEVELOPMENT ACTIVITIES APPLICATION IS USED TO APPLY FOR ONE OR MORE OF THE FOLLOWING APPROVALS.

FOLLOWING SECTIONS II AND X APPLY.

RECEIVED

1. Check all that apply to your project and complete those sections of the application:

NOV 7 2003

- SECTION I.** **Zoning Structural Setback Variance** - to place a structure closer to the lot line than allowed:
Residential front 15' side 5' rear 25'
Residential-2 front 15' side 5',10' rear 25'
Suburban, Sub-II front 25' side 15' rear 25'
Agriculture, Liberty front 25' side 5' rear 25'
Rural-3 front 25' side 15' rear 15'
Forest&Range-20 front 25' side 10' rear 10'
Commercial Forest front 200' side 200' rear 200'
Fee - \$150
- SECTION II.** **Zoning Conditional Use Permit** - proposing a use such as a bed & breakfast or campground. PREVIOUSLY PAID.
Fee - \$350
- SECTION III.** **Request to Rezone** - to change from the existing zone to another zone.
Fee - \$450
- SECTION IV.** **Shorelines Substantial Development/Conditional Use Permit** - proposing a project greater than \$2,500 value w/in 200' of a water body listed in Section V.
Fee - \$350
- SECTION V.** **Shorelines Structural Setback Variance** - to place a structure closer than 100' of (*denotes portion of shoreline requiring 200' setback):

<i>Kachess River</i>	<i>Lake Kachess</i>	<i>Lake Kachess*</i>
<i>Cabin Creek</i>	<i>Lake Cle Elum</i>	<i>Lake Easton</i>
<i>Log Creek</i>	<i>Cle Elum River</i>	
<i>Big Creek</i>	<i>Lost Lake*</i>	
<i>Little Creek</i>	<i>Unnamed Lakes (T.21 R.12)*</i>	
<i>Swank Creek</i>	<i>Cooper Lake*</i>	
<i>Tanana Creek</i>	<i>Tucquola Lake*</i>	
<i>Taneyway River</i>	<i>Mammoth Lake*</i>	
<i>(incl. West, Middle, North forks) Mammoth Creek (incl. South fork)</i>	<i>Mammoth Creek</i>	
<i>Yakima River*</i>	<i>Columbia River*</i>	
<i>Wilson Creek (so. of Elburg)</i>		

Fee - \$350
- SECTION VI.** **Flood Development Permit** - for any construction or placement of buildings, mining, dredging, filling, grading, paving, excavation or drilling in the FEMA 100-Year Floodplain.
Fee - \$10.00
- SECTION VII.** **Short Plat** - to divide into 2-4 lots.
Fee - \$190 plus \$10/lot Transportation; \$125 plus \$50/hr. over 2.5 hrs. Environmental Health; and, \$175 Planning.
- SECTION VIII.** **Long Plat** - to divide into 5 or more lots.
Fee - \$200 plus \$10/lot Transportation; \$625 plus \$50/hr. over 12.5 hrs. Environmental Health; and, \$400 Planning.
- SECTION IX.** **Public Facilities Permit** - a written decision by the Planning Dept authorizing a public facility use to locate at a specific location.
Fee: \$350

Incomplete or illegible applications will be returned. KCPD 2-02

1

Organization Letter 4

Section X.
Fee - \$100 initial

SEPA Environmental Checklist/Review - review required in conjunction with Sections II, III, IV, VIII Or IX. Other development proposals may also require completion of this section. ATTACHED, FEE PREVIOUSLY PAID.

Name, mailing address and day phone of land owner(s) of record:

CASCADE FIELD & STREAM CLUB
C/O MONTY MILLER
P.O. BOX 424
CLE ELUM, WA 98922

Name, mailing address and day phone of authorized agent, if different from land owner of record:

PAUL HORISH
730 TEANAWAY HTS. DR.
CLE ELUM, WA 98922
509-674-5185

PHILIP A. LAMB
LAMB LAW OFFICE
P.O. BOX 4
YAKIMA, WA. 98907
509-225-3522
509-936-1207 CELL

4. Contact person for application (select one): Owner of record Authorized agent
All verbal and written contact regarding this application will be made only with the contact person.
CONTACT BOTH HORISH & LAMB.

5. Street address of property:
2410 HAYWARD RD.

6. Legal description of property:
PARCEL A:

ALL OF THAT PORTION OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER, AND OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER AND OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER LYING EAST OF THE COUNTY ROAD AND LYING EAST OF THE EASTERLY BOUNDARY OF THE KITTTAS RECLAMATION DISTRICT CANAL, IN SECTION 21, TOWNSHIP 19 NORTH, RANGE 17 EAST, W.M.

PARCEL B:

ALL OF THE NORTHEAST QUARTER OF SECTION 21, TOWNSHIP 19 NORTH, RANGE 17 EAST, W.M. LYING EAST OF THE COUNTY ROAD.

Tax parcel number:
19-17-21000-0061

8. Property size:
182.38 ACRES.

9. Narrative project description: describe project size, location, water supply, sewage disposal and all qualitative features of the proposal; include every element of the proposal in the description (be specific, attach additional sheets as necessary):

THIS 182 ACRE PARCEL, CURRENTLY ZONED AG-20, IS UNDEVELOPED RANGE LAND. EXTENSION OF UTILITIES, SUCH AS WATER AND ELECTRICITY, IS NOT ECONOMICALLY FEASIBLE IN THE NEAR FUTURE. THIS RANGE LAND HAS BEEN PURCHASED BY THE CASCADE FIELD & STREAM CLUB IN ORDER TO REPLACE THE BULL FROG ROAD RANGE, WHICH WAS RELINQUISHED TO THE PLUM CREEK/MOUNTAIN STAR DEVELOPMENT.

THE CLUB HOPES TO ESTABLISH EQUIVALENT FACILITIES TO THE BULL FROG RANGE, WITH IMPROVEMENTS OVER TIME, SUBJECT TO FINANCING. ESTABLISHING THIS NEW RANGE WILL CONTINUE THE CLUB'S TRADITION OF PROVIDING A SAFE FACILITY IN KITTTAS COUNTY FOR FIREARMS TRAINING AND PRACTICE. THE CLUB IS EXTREMELY PROUD THAT

Incomplete or illegible applications will be returned. KCPD 2-02

2

THERE HAVE BEEN NO FIREARMS SAFETY INCIDENTS AT ITS RANGE SINCE ITS FOUNDING IN 1934, AND EXPECTS TO CONTINUE THAT TRADITION.

AS REFLECTED ON THE SITE PLAN (EX. A-1), FACILITIES WILL INCLUDE ARCHERY, RIFLE, PISTOL, AND SHOTGUN (TRAP/SKEET) RANGES. A PRIVATE ACCESS ROAD WILL BE CONSTRUCTED FROM HAYWARD ROAD. A STORAGE CONTAINER, AND POSSIBLY A MODEST MOBILE HOME, WILL BE BROUGHT IN FOR STORAGE, TRAINING, AND CONDUCTING MATCHES.

LACK OF UTILITIES WILL REQUIRE THE PRESENCE OF EITHER A PORT-POTTIE(S) OR HEALTH DEPARTMENT APPROVED OUTHOUSE. POTABLE WATER WILL NOT BE AVAILABLE ON-SITE. WATER FOR FIRE PROTECTION PURPOSES, AND APPROPRIATE FIRE BREAKS, WILL BE PROVIDED AS ULTIMATELY REQUIRED BY THE COUNTY AND FIRE MARSHALL.

DRY CAMPING BY CLUB MEMBERS AND INVITED GUESTS IS ANTICIPATED. NO COMMERCIAL OR PUBLIC CAMPING WILL BE PERMITTED.

IF AND WHEN UTILITIES BECOME ECONOMICALLY FEASIBLE, A CARETAKER RESIDENCE MIGHT BE INSTALLED. IN THAT EVENT, ALL SITING AND DEVELOPMENT REGULATIONS OF THE AG-20 ZONE WOULD BE COMPLIED WITH, AND SUCH A RESIDENCE IS CONSIDERED BY THE APPLICANT TO BE AN EXISTING PERMITTED USE.

ON-SITE ROAD AND PARKING IMPROVEMENTS WILL BE GRAVELLED, DUST ABATED AS NECESSARY, AND DESIGNED TO ACCOMMODATE APPROXIMATELY 100 VEHICLES. GIVEN THE RELATIVELY REMOTE LOCATION, AS COMPARED TO BULL FROG, AND THE LACK OF UTILITIES, AVERAGE DAILY TRIP COUNTS IN EXCESS OF TEN ARE CONSIDERED UNLIKELY.

THE SITE WILL BE FENCED, POSTED, WITH A LOCKED GATE ACCESSIBLE ONLY BY AUTHORIZED USERS, INCLUDING EMERGENCY SERVICES PERSONNEL.

THE RANGE WILL BE OPERATED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES AS SUGGESTED BY THE FEDERAL ENVIRONMENTAL PROTECTION AGENCY, IN ITS PUBLICATION EPA-902-B-01-001, DATED JANUARY 2001, ENTITLED "BEST MANAGEMENT PRACTICES FOR LEAD AT OUTDOOR SHOOTING RANGES".

RANGE OPERATION WILL ALSO COMPLY WITH BEST MANAGEMENT PRACTICES AS RECOMMENDED BY THE NATIONAL RIFLE ASSOCIATION, AS REFLECTED IN ITS RANGE DESIGN AND MANAGEMENT MANUAL.

NOISE GENERATION WILL BE SPORADIC, WITH LITTLE OFFSITE IMPACT DUE TO THE REMOTE LOCATION. A NOISE STUDY DONE FOR THE CLUB (CF&S EXHIBIT 4) INDICATES THE CLUB WILL BE IN COMPLIANCE WITH THE NOISE CONTROL ACT OF 1974, RCW 70.107, WHICH REGULATES DECIBEL LEVELS. WAC 173-60-050(1)(b) EXEMPTS SOUNDS CREATED BY THE DISCHARGE OF FIREARMS ON AUTHORIZED SHOOTING RANGES BETWEEN THE HOURS OF 7:00 A.M. AND 10:00 P.M. THE RANGE WILL OPERATE WITHIN THOSE HOURS, SUBJECT TO ACTUAL AVAILABILITY OF DAYLIGHT.

THE RANGE ANTICIPATES CONTINUING TO SERVE THE TRAINING NEEDS OF LOCAL LAW ENFORCEMENT AGENCIES. PAST AGENCY USERS INCLUDE THE KITTITAS COUNTY SHERIFF DEPARTMENT, ROSLYN AND CLE ELUM POLICE DEPARTMENTS, THE WASHINGTON STATE PATROL, AND THE BELLEVUE SWAT TEAM.

HUNTER EDUCATION TRAINING PROGRAMS WILL CONTINUE TO BE A FOCUS OF THE CLUB. THIS NEW FACILITY WILL BE MORE SAFE, AND ALLOW A MORE NATURAL TRAINING ENVIRONMENT, THAN THE BULL FROG RANGE. RCW 77.32.155 MANDATES THIS TRAINING IN ORDER TO OBTAIN A HUNTING LICENSE. THIS FACILITY WILL SUPPORT THE SIGNIFICANT ECONOMIC IMPACT HUNTING PROVIDES TO KITTITAS COUNTY. ESTABLISHED WELL DESIGNED AND OPERATED FACILITIES PROVIDE AN OUTLET FOR FIREARMS RELATED ACTIVITIES, HOPEFULLY HELPING TO DETER UNAUTHORIZED SHOOTING AND TRESPASS ON OTHER PRIVATE PROPERTY.

Incomplete or illegible applications will be returned. KCPD 2-02

10. Application is hereby made for permit(s) to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agencies to which this application is made, the right to enter the above-described location to inspect the proposed and or completed work.

Signature of Authorized Agent
SIGNATURE OF PAUL HORISE IS ON FILE.

Date APRIL 28, 2003

Signature of Land Owner of Record (required for application submittal) Date
SIGNATURE OF MONTY MILLER, ON BEHALF OF THE CLUB, IS ON FILE.

THIS REVISED APPLICATION SUPPLEMENTS THE PRIOR APPLICATIONS, DATED SEPT. 9, 2001, May 6, 2002 AND APRIL 30, 2003.

SECTION I ZONING STRUCTURAL SETBACK VARIANCE. NOT APPLICABLE.

ADDITIONAL ITEMS TO COMPLETE: NONE

1. Provision of zoning code for which this variance is requested and the way in which you wish to vary:

2. A variance may be granted when the following criteria are met. Please describe how each criteria is met for this particular request (attach additional sheets as necessary):
 - a. Unusual circumstances or conditions applying to the property and/or the intended use that do not apply generally to other property in the same vicinity or district, such as topography.

 - b. Such variance is necessary for the preservation and enjoyment of a substantial property right of the applicant possessed by the owners of other properties in the same vicinity.

 - c. That authorization of such variance will not be materially detrimental to the public welfare or injurious to property in the vicinity.

 - d. That the granting of such variance will not adversely affect the realization of the comprehensive development pattern.

SECTION II ZONING CONDITIONAL USE PERMIT.

ADDITIONAL ITEMS TO COMPLETE: SECTION X SEPA ENVIRONMENTAL CHECKLIST.

1. Provision of the zoning code applicable:
KCC CHAPTER 17.60, DEALING WITH CONDITIONAL USES IN THE AG-20 ZONE, AND RELATED PROVISIONS.

2. A conditional use permit may be granted when the following criteria are met. Please describe how each criteria is met for this particular project (attach additional sheets as necessary):

Incomplete or illegible applications will be returned. KCPD 2-02

- A The proposed use is essential or desirable to the public convenience and not detrimental or injurious to the public health, peace, or safety or to the character of the surrounding neighborhood.

STATE LAW, CITED ABOVE, FAVORS CREATION OF FIRING RANGES. REMOTE LOCATIONS IN RURAL AREAS ARE OBVIOUSLY PREFERRED, DUE TO THE NATURE OF THE ACTIVITY. THIS 183 ACRE PARCEL IS IDEAL, DUE TO THE LIMITED DEVELOPMENT POTENTIAL OF THE SURROUNDING AREA, YET IT IS REASONABLY ACCESSIBLE.

OPERATED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES, THERE WILL BE NO ADVERSE IMPACT TO THE PUBLIC HEALTH, PEACE, OR SAFETY. ALTHOUGH THIS IS A LAND USE APPLICATION, IT IS IMPORTANT TO RECOGNIZE THE CONSTITUTIONAL PRIORITY THE BILL OF RIGHTS PLACES ON THE SECOND AMENDMENT. REGARDLESS OF ONE'S POLITICAL OR PERSONAL PHILOSOPHY CONCERNING FIREARMS, THERE CAN BE NO DOUBT THAT PUBLIC EDUCATION AND AN APPROPRIATE LOCATION FOR FIREARMS ACTIVITIES CONTRIBUTES TO THE PUBLIC HEALTH AND SAFETY.

THE LAST FACTOR REQUIRES CONSIDERATION OF THE IMPACT OF THIS PROPOSAL ON THE CHARACTER OF THE SURROUNDING NEIGHBORHOOD. THIS WORDING IS INSTRUCTIVE. LAND USE REGULATION HAS DEVELOPED IN RESPONSE TO INCREASED POPULATION DENSITY. AS NEIGHBORHOODS DEVELOP, THERE IS INCREASED POLITICAL INTEREST IN ENCOURAGING COMPATIBLE ACTIVITIES. THIS RURAL AREA IS VERY LIGHTLY POPULATED, AND THUS WILL BE LITTLE AFFECTED.

GIVEN SETTLEMENT PATTERNS IN THIS COUNTRY, AND PARTICULARLY IN KITTITAS COUNTY, THIS IS ONE OF THE MOST DESIRABLE LOCATIONS. IT IS REASONABLY ACCESSIBLE, BUT ABOUT AS REMOTE AS ONE CAN EXPECT. IF HAYWARD WAS A MUCH IMPROVED ROAD, AND UTILITIES WERE AVAILABLE, THIS WOULD BE A MUCH LESS DESIRABLE LOCATION BECAUSE IT WOULD BE BETTER SUITED FOR MORE INTENSE USES.

WHEN CONSIDERING A CONDITIONAL USE PERMIT, THE UNDERLYING ZONING AND THE USES WHICH ARE PERMITTED OUTRIGHT SERVE AS A GUIDE IN CONSIDERING THE COMPATIBILITY OF THE PROPOSED USE. IN THIS INSTANCE, AG-20 ZONING MEANS 9 HOUSES ARE ENTITLED TO BUILDING PERMITS OUTRIGHT ON THIS PARCEL, WITHOUT REGARD TO THE IMPACT OF TEN VEHICLE TRIP ENDS PER DAY PER HOUSE, WITHOUT REGARD TO ANY ENVIRONMENTAL IMPACT (EXEMPT FROM SEPA REVIEW), WITHOUT REGARD TO GROUND WATER IMPACT (ENTITLED TO EXEMPT WELLS), WITHOUT REGARD TO ANY IMPACT ON HAYWARD RD, AND WITHOUT REGARD TO FIRE PROTECTION ISSUES.

COMPLY WITH THE PLATTING REQUIREMENTS, COMPLY WITH THE BUILDING CODE, AND THIS PROPERTY COULD BE TRANSFORMED INTO PERMITTED USES WITH FAR MORE IMPACT THAN THIS PROPOSAL.

- B The proposed use at the proposed location will not be unreasonably detrimental to the economic welfare of the county and that it will not create excessive public cost for facilities and services by finding that (1) it will be adequately serviced by existing facilities such as highways, roads, police and fire protection, irrigation and drainage structures, refuse disposal, water and sewers, and schools; or (2) that the applicant shall provide such facilities; or (3) demonstrate that the proposed use will be of sufficient economic benefit to offset additional public costs or economic detriment.

THE ANALYSIS SET FORTH ABOVE SHOULD ALSO INSTRUCT REVIEW OF THESE FACTORS. THIS PROJECT MUST COMPLY WITH COUNTY DEVELOPMENT REGULATIONS. EACH AGENCY WILL WEIGH IN DURING THIS REVIEW PROCESS. ISSUES CONCERNING FIRE

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PROTECTION AND ROAD ACCESS WILL OBVIOUSLY BE IMPORTANT TO CONSIDER AND RESPOND TO. THIS FACILITY CAN ENHANCE THE COUNTY'S REPUTATION FOR OUTDOOR SPORTS, INCLUDING HUNTING AND MORE ORGANIZED FIREARMS EVENTS. PROVISIONS CAN BE MADE FOR FIRE PROTECTION WHICH WILL SIGNIFICANTLY ENHANCE THE CURRENT SITUATION. ROAD CONDITIONS COULD BE BETTER, BUT THE LOW VOLUME OF PROJECTED TRAFFIC WILL UNDOUBTEDLY BE LESS THAN IS EXISTING PARCELS IN THE AREA, WITHOUT ANY NEW LOT CREATION, WERE DEVELOPED TO THE EXISTING PERMITTED RESIDENTIAL DENSITY.

SECTION III. REQUEST FOR REZONE.
NOT APPLICABLE

ADDITIONAL ITEMS TO COMPLETE: SECTION X SEPA ENVIRONMENTAL CHECKLIST.

1. Present zoning district
2. Zoning district requested:

3. Applicant for rezone must demonstrate that the following criteria are met (attach additional sheets as necessary):
 - a. The proposed amendment is compatible with the comprehensive plan.

 - b. The proposed amendment bears a substantial relation to the public health, safety or welfare.

 - c. The proposed amendment has merit and value for Kittitas County or a sub-area of the county.

 - d. The proposed amendment is appropriate because of of changed circumstances or because of a need for additional property in the proposed zone or because the proposed zone is appropriate for reasonable development of the subject property.

 - e. The subject property is suitable for development in general conformance with zoning standards for the proposed zone.

 - f. The proposed amendment will not be materially detrimental to the use of properties in the immediate vicinity of the subject property.

 - g. The proposed changes in use of the subject property shall not adversely impact irrigation water deliveries to other properties.

SECTION IV. SHORELINES SUBSTANTIAL DEVELOPMENT/CONDITIONAL USE.
NOT APPLICABLE.

ADDITIONAL ITEMS TO COMPLETE: SECTION VI FLOOD DEVELOPMENT APPLICATION (IF LOCATED WITHIN 100-YEAR FLOODPLAIN); SECTION X SEPA ENVIRONMENTAL CHECKLIST; AND, THE FOLLOWING ITEMS:

Incomplete or illegible applications will be returned. KCPD 2-02

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D SECTION IX. SEPA ENVIRONMENTAL CHECKLIST.

A. Background

1. Proposed timing or schedule (including phasing, if applicable):

DIRTWORK IS THE BULK OF THE ACTIVITY, COMMENCING IMMEDIATELY UPON PERMIT APPROVAL. ROUTINE ACCESS AND MAINTENANCE ALREADY OCCURS ON SITE.

STRUCTURAL IMPROVEMENTS, SUCH AS SHOOTING BENCHES AND COVERS, AND STORAGE FACILITIES, WILL BE BUILT AS TIME AND MONEY PERMIT.

2. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

AS INDICATED IN THE APPLICATION, A FUTURE CARETAKER/RANGE OFFICER RESIDENCE MAY BE ADDED IF AND WHEN UTILITIES BECOME AVAILABLE. COMMERCIAL CAMPING IS A LONG TERM POSSIBILITY, BUT WOULD BE SUBJECT TO ZONING REVIEW AT THAT TIME.

3. List any environmental information you know about that had been prepared, or will be prepared, directly related to this proposal.

SAGEBRUSH POWER PARTNERS,LLC HAS DONE EXTENSIVE STUDIES ON OUR PROPERTY AND THE SURROUNDING AREA WHICH HAVE BEEN PUT IN THE PUBLIC DOMAIN IN THEIR KITTITAS VALLEY WIND POWER PROJECT EFSEC APPLICATION DATED 13 JANUARY, 2003. WITH VERBAL PERMISSION, WE HAVE INCLUDED SOME OF THIS INFORMATION AS EXHIBITS FOR THIS DOCUMENT.

DR ANDREW PIACSEK, ASSISTANT PROFESSOR OF PHYSICS AT CWU, HAS COMPLETED A NOISE STUDY FOR US; THIS STUDY IS INCLUDED AS CF&S EXHIBIT 4.

WE HAVE NOT PREPARED SPECIFIC ADDITIONAL ENVIRONMENTAL STUDIES.

4. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

WIND FARM PROPOSALS, WHICH SEEM TO BE ON-AGAIN, OFF-AGAIN, MAY AFFECT THIS PROPERTY (ZILKHA). AT THIS POINT NO CONFLICT IS APPARENT.

5. List any government approvals or permits that will be needed for your proposal, if known.

CONDITIONAL USE PERMIT, FIRE MARSHALL APPROVAL, BUILDING PERMITS FOR COVERED STRUCTURES.

B. Environmental Elements

1. Earth

a. General description of the site (circle one): flat, rolling, hilly, steep slopes, mountainous, other.

HILLY.

b. What is the steepest slope on the site (approximate percent slope)?

45%, FOR A SMALL PORTION OF THE PARCEL. THE AREA PROPOSED FOR DEVELOPMENT IS BASICALLY FLAT.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

CLAY, BASIC DIRT, SCATTERED SMALL ROCK.

d. Are there surface indications or history of unstable soils in the immediate vicinity?

NO

- a. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

ALL GRADING AND FILLING WILL BE NET TO THE PROPERTY, EXCEPT FOR ROAD ROCK WHICH MAY BE BROUGHT IN. PERHAPS 2400 LINEAR FEET OF ACCESS ROAD WILL BE CONSTRUCTED, TOGETHER WITH PARKING. MATERIAL MOVEMENT WILL BE VERY LOCALIZED.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

THE MOST SIGNIFICANT EROSION POTENTIAL WILL RESULT FROM FIREBREAK CONSTRUCTION, WHICH WILL HAVE TO BE SENSITIVE TO THE TOPOGRAPHY.

- g. About what percentage of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

SHOOTING PADS FOR THE RANGES WILL BE THE PRIMARY IMPERVIOUS SERVICES:

SHOTGUN	75' X 50' = 1875
RIFLE	15 X 150 = 2250
PISTOL	15 X 150 = 2250
CLUBHOUSE	50 X 100 = 5000
STORAGE	24 X 32 = 800
TOTAL	12,175 SQ. FT., APPROXIMATELY .36 ACRE, OR .2%.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

COMPLIANCE WITH STANDARD CONSTRUCTION PROCEDURES. LANDSCAPING OF DISTURBED AREAS WILL CONSIST OF REPLANTING GRASSES APPROPRIATE TO THE AREA, SUCH AS CRESTED WHEAT GRASS, IDAHO FESCUE, AS WELL AS PINE TREES.

2. AIR

- a. What types of emissions to the air would result from the proposal (i.e. dust, automobiles, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

DURING CONSTRUCTION, EARTHEMOVING EQUIPMENT GENERATES DUST AND DIESEL FUMES.

NORMAL OPERATIONS WILL GENERATE AUTOMOTIVE RELATED NOISE AND FUMES, AS WELL AS SPORADIC GUNFIRE AND OCCASIONAL USE OF A HANDHELD MEGAPHONE DURING MATCHES.

DRY CAMPING BY MEMBERS AND GUESTS WILL RESULT IN OCCASIONAL FIREPITS IN APPROVED LOCATIONS.

IN ALL CASES, EMISSIONS WILL BE MINIMAL, CONSISTENT WITH THE LOW AVERAGE DAILY TRAFFIC EXPECTED FOR THIS PROPOSAL.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

NO.

Proposed measures to reduce or control emissions or other impacts to air, if any:

DUST ABATEMENT, AS NEEDED, ON INTERIOR ROAD.

Incomplete or illegible applications will be returned. KCPD 2-02

3. **WATER**

a. **Surface**

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

A SEASONAL STOCK POND IS LOCATED ON SITE, AS REFLECTED ON THE SITE PLAN. IT IS FED BY SNOW MELT AND RUN OFF, WHICH DRAINS FROM THE POND, FOLLOWING THE NATURAL TERRAIN OFF-SITE.

2) Will the project require any work over, in or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

NO. THE POND AREA WILL REMAIN AS IS FOR WILDLIFE USE.

3) Estimate the fill and dredge material that would be placed in or removed from surface water or wetlands, and indicate the area of the site that would be affected. Indicate the source of fill material.

NOT APPLICABLE.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

NO.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

NO. LOCATION IS 740' ABOVE THE RIVER.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

WASTE AND DEBRIS, SUCH AS LITTER, WILL BE DEPOSITED IN AN ON-SITE DUMPSTER. HUMAN WASTE WILL BE TAKEN CARE OF BY A PORT-POTTIE.

THERE IS A REMOTE POSSIBILITY OF LEAD LEACHING FROM THE BULLET BACKSTOPS INTO THE INTERMITTENT DRAINAGE FROM THE STOCK POND. AS REFLECTED IN THE SCIENCE, LEAD IS VERY STABLE, TENDING NOT TO MOVE. HOWEVER, SMALL BERMS, UP TO ABOUT ONE FOOT HIGH, WILL BE SPACED IN THE DRAINAGE, TO SERVE AS SMALL SETTLING BASINS TO SETTLE OUT ANY LEAD WHICH MAY ENTER THE CHANNEL. THESE CAN BE CLEANED PERIODICALLY.

b. **Ground**

1) Will ground water be withdrawn, or will water be discharged to surface waters? If so, give general description, purpose, and approximate quantities if known.

NO, UNTIL AN EXEMPT WELL IS INSTALLED, WHICH FOR PRACTICAL PURPOSES IS YEARS IN THE FUTURE. ANY WELL WILL COMPLY WITH STATE AND LOCAL REGULATIONS IN PLACE WHEN THE WELL IS INSTALLED.

2) Describe waste materials that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

THE BULLET BACKSTOP AREAS WILL BE BUILT AND OPERATED IN COMPLIANCE WITH BEST MANAGEMENT PRACTICES, AS OUTLINED ABOVE IN THE APPLICATION. WHEN COMMERCIALY FEASIBLE, LEAD WILL BE RECLAIMED. THE POTENTIAL RUNOFF SITUATION IS DEALT WITH ABOVE.

ANY CARETAKER/RANGE OFFICER RESIDENCE, AND A POTENTIALLY FLUMBED CLUBHOUSE, WILL COMPLY WITH ALL REGULATIONS, IF THEY ARE EVER BUILT.

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

THE INTERMITTENT DRAINAGE FROM THE STOCK POND IS APPARENTLY CLASSIFIED BY THE COUNTY AS A CLASS 5 STREAM BED. THIS SITE IS ABOUT 2.3 MILES FROM THE YAKIMA RIVER. THE CLASS 5 STREAM APPARENTLY DRAINS INTO AN IRRIGATION CANAL ABOUT 1.7 MILES AWAY.

2) Could waste materials enter ground or surface waters? If so, generally describe.

NO, EXCEPT AS PREVIOUSLY DESCRIBED.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

THE LOW BERMS CREATING SMALL SETTLING PONDS ARE DESCRIBED ABOVE.

4. PLANTS

a. Check or circle types of vegetation found on the site:

deciduous tree: alder, maple, aspen, other
evergreen tree: fir, cedar, pine, other
shrubs
grass
pasture
crop or grain
wet soil plants: cattails, buttercup, bulrush, skunk cabbage, other
water plants: waterlily, eelgrass, milfoil, other
other types of vegetation:

SHRUBS, NATIVE GRASSES, SAGEBRUSH, AND WEEDS. SEE CF&S EXHIBIT 6, AN INVESTIGATION OF RARE PLANT RESOURCES.

b. What kind and amount of vegetation will be removed or altered?

THIS HAS BEEN PREVIOUSLY DESCRIBED. ROAD, PARKING, AND SHOOTING BENCH AREAS WILL RESULT IN REMOVING THE NATIVE VEGETATION. PERHAPS 11 ACRES OF THE 183 ACRE PARCEL WILL BE DISTURBED.

c. List threatened or endangered species known to be on or near the site.

NONE KNOWN. SEE CF&S EXHIBIT 6, AN INVESTIGATION OF RARE PLANT RESOURCES. WASHINGTON DNR LAND IN THIS AREA HAS BEEN GRAZED EVERY SPRING FOR DECADES.

d. Proposed landscaping use of native plants, or other measures to preserve or enhance vegetation on the site, if any.

AS PREVIOUSLY INDICATED, UNIMPROVED DISTURBED AREAS WILL BE REPLANTED WITH APPROPRIATE GRASSES, SUCH AS BUNCH AND CRESTED WHEAT, FOR USE BY WILDLIFE. PINE TREES AND OTHER APPROPRIATE SHRUBS AND TREES MAY BE PLANTED FOR SHELTER BELTS.

ANIMALS

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:
birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beavers, other:

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fish: bass, salmon, trout, herring, shellfish, other:

HAWKS, EAGLES, SONGBIRDS, DEER, ELK, AND COYOTES. FOR A MORE COMPLETE LISTING SEE CF&S EXHIBIT 8 - WILDLIFE BASELINE STUDY - AND CF&S EXHIBIT 5 - WASHINGTON FISH AND WILDLIFE'S ANSWERS TO OUR SAME QUESTION.

- b. List any threatened or endangered species known to be on or near the site.

NONE KNOWN. PLEASE SEE CF&S EXHIBIT 7 - BIOLOGICAL ASSESSMENT OF ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES. OUR CLUB PROPERTY WAS COVERED AS A PART OF THIS STUDY.

GRAZING, EXTENSIVE DRYLAND FARMING, AND RESIDENTIAL HOUSING ARE ALL PERMITTED OUTRIGHT ON THIS PARCEL. THESE PERMITTED USES ARE FAR MORE DESTRUCTIVE OF THE NATURAL ENVIRONMENT THAN THIS PROPOSAL.

- c. Is the site part of a migration route? If so, explain.

NO.

- d. Proposed measures to preserve or enhance wildlife, if any.

MAINTAIN STOCK POND, REVEGETATE UNIMPROVED DISTURBED AREAS, MAINTAIN A VERY HIGH PERCENTAGE OF UNDISTURBED AREA.

6. ENERGY AND NATURAL RESOURCES

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the competed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

LACK OF UTILITIES LIMITS ENERGY CONSUMPTION. PROPANE AND FUEL POWERED GENERATORS MAY BE OCCASIONALLY USED. THIS IS NOT AN ENERGY CONSUMPTIVE PROJECT.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, describe.

NO.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.

NONE.

7. ENVIRONMENTAL HEALTH

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

LEAD MIGRATION FROM BULLET IMPACT AREAS IS A REMOTE POSSIBILITY, AS PREVIOUSLY DESCRIBED. SMOKELESS POWDER, EVEN IN BULK, IS NOT EXPLOSIVE AND SIMPLY BURNS RAPIDLY. BLACK POWDER IS EXPLOSIVE, BUT WILL BE ON SITE IN VERY SMALL QUANTITIES FOR PERSONAL USE. IT WILL NOT BE STORED ON SITE. POWDER RELATED EFFECTS ARE PRIMARILY BURN RELATED TO INDIVIDUAL USE, CONTROLLABLE BY THE USER, MUCH AS A CHAIN SAW IS DANGEROUS IF NOT PROPERLY HANDLED.

- 1) Describe special emergency services that might be required.

AMBULANCE AND FIRE PROTECTION, CONSISTENT WITH THE ZONING.

- 2) Proposed measures to reduce or control environmental health hazards, if any.

THIS FACILITY WILL BE DESIGNED, CONSTRUCTED, AND OPERATED IN COMPLIANCE WITH BEST MANAGEMENT PRACTICES FOR OUTDOOR SHOOTING RANGES, PURSUANT TO MANUALS IDENTIFIED IN THE APPLICATION.

Incomplete or illegible applications will be returned. KCPD 2-02

b. Noise

1) What types of noise exist in the area which may affect your project (for example, traffic, equipment, operation, other)?

NONE.

2) What types and levels of noise would be created by or associated with the project on a short-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

ROAD BUILDING AND LAND LEVELING WITH CONSTRUCTION EQUIPMENT, TYPICALLY FROM 7:00 AM TO 5:00 PM.

3) Proposed measures to reduce or control noise impacts, if any.

NONE.

8. LAND AND SHORELINE USE

a. What is the current use of the site and adjacent properties?

THIS SITE IS RANGE LAND. SURROUNDING PROPERTIES ARE ALSO RANGE LAND. SCATTERED, VERY LOW DENSITY SINGLE FAMILY RESIDENCES ARE ALSO IN THE AREA. THE CLOSEST RESIDENCE IS THOUSANDS OF FEET AWAY.

b. Has the site been used for agriculture? If so, describe.

GRAZING, SINCE AT LEAST THE 1960'S.

c. Describe any structures on the site.

NONE. A "SEA-LAND TYPE" SHIPPING CONTAINER HAS BEEN EMPLACED FOR STORAGE AND A 15000 FIRE WATER STORAGE TANK HAS BEEN BURIED.

d. Will any structures be demolished? If so, what?

NO.

e. What is the current zoning classification of the site?

AG 20.

f. What is the current comprehensive plan designation of the site?

RURAL.

g. If applicable, what is the current shoreline master program designation of the site?

NOT APPLICABLE.

h. Has any part of the site been classified as an environmentally

NOT TO OUR KNOWLEDGE.

i. Approximately how many people would the completed project displace?

NONE.

j. Approximately how many people would reside or work in the completed project?

ONE, ON A PART-TIME, PROBABLE VOLUNTEER BASIS, IMMEDIATELY. PERHAPS 2 ON A MORE PERMANENT BASIS IN THE DISTANT FUTURE.

k. Proposed measures to avoid or reduce displacement impacts, if any.

NONE.

Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

PROJECT WILL COMPLY WITH BEST MANAGEMENT PRACTICES FOR FACILITIES OF THIS TYPE. THE PROJECT WILL HAVE LESS IMPACT THAN EXISTING PERMITTED USES, WITH A MUCH LOWER OVERALL DEVELOPMENT DENSITY.

IN CONSIDERING COMPATIBILITY AND ENVIRONMENTAL IMPACTS, WASHINGTON CASELAW DIRECTS THAT A CONDITIONAL USE PERMIT PROJECT MUST BE COMPARED IN LIGHT OF USES WHICH ARE PERMITTED OUTRIGHT IN THE SAME ZONE. IT IS INAPPROPRIATE TO REQUIRE MORE OF A PROJECT WHICH REQUIRES A CONDITIONAL USE PERMIT, IF IT HAS LESS OR EQUIVALENT IMPACT, THAN WOULD BE REQUIRED OF AN OUTRIGHT PERMITTED USE. SEE HANSEN V. CHELAN COUNTY, 81 WN.APP. 133 (1996), CITED APPROVINGLY IN DEV. SERVS. V CITY OF SEATTLE, 138 WN.2D 107, 126 (1999).

REGULATORY REFORM LEGISLATION, CODIFIED AT RCW 36.70B, REQUIRES LOCAL PROJECT REVIEW TO BE CONSISTENT WITH, AND NOT REVISIT, FUNDAMENTAL LAND USE PLANNING CHOICES MADE IN ADOPTED COMPREHENSIVE PLANS AND DEVELOPMENT REGULATIONS. SEE RCW 36.70B.030 (PROJECT REVIEW—REQUIRED ELEMENTS—LIMITATIONS) AND 36.70B.040 (DETERMINATION OF CONSISTENCY).

9. HOUSING

a. Approximately how many units would be provided, if any? Indicate whether high, middle or low-income housing.

PERHAPS ONE UNIT IN THE DISTANT FUTURE, LOW TO MIDDLE INCOME.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle or low-income housing.

NI

c. Proposed measures to reduce or control housing impacts, if any.

NONE.

10. AESTHETICS

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

METAL BUILDINGS, PERHAPS 25 FEET HIGH, ARE ANTICIPATED. ALL STRUCTURES WILL COMPLY WITH AG 20 ZONING AND RELATED DEVELOPMENT REGULATIONS, INCLUDING UNIFORM BUILDING CODE

b. What views in the immediate vicinity would be altered or obstructed?

NONE.

Proposed measures to reduce or control aesthetic impacts, if any.

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Organization Letter 4

NONE.

11. **LIGHT AND GLARE**

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

NONE.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

- c. What existing off-site sources of light or glare may affect your proposal?

NONE.

- d. Proposed measures to reduce or control light and glare impacts, if any.

NONE.

12. **RECREATION**

- a. What designated and informal recreational opportunities are in the immediate vicinity?

NOTHING DESIGNATED. INFORMAL ROCK HUNTING, WILDLIFE VIEWING, AND FLOWER PICKING.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

NOTHING IS PROPOSED TO REDUCE OR CONTROL IMPACTS ON EXISTING RECREATION OPPORTUNITIES.

THIS IS A RECREATION PROPOSAL, SUBSTANTIALLY INCREASING RECREATIONAL RESOURCES IN KITTITAS COUNTY.

13. **HISTORIC AND CULTURAL PRESERVATION**

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the sites? If so, generally describe.

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

NONE.

- c. Proposed measures to reduce or control impacts, if any.

NONE.

14. **TRANSPORTATION**

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

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HAYWARD RD FROM THE NORTH (CONNECTING TO BETTAS RD) IS THE PRIMARY ACCESS. HAYWARD RD TO THE SOUTH, IS MORE PRIMITIVE AND WOULD NOT BE ADVOCATED NOR PROMOTED BY THE CLUB FOR ACCESS.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

NO. NEAREST PUBLIC TRANSIT IS ABOUT 11 MILES.

c. How many parking spaces would the completed project have? How many would the project eliminate?

ABOUT 100 GRAVELLED SPACES WILL BE PROVIDED. NONE WILL BE ELIMINATED.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

NO. LEVEL OF SERVICE ON EXISTING PUBLIC ROADS DOES NOT REQUIRE IMPROVEMENT UNDER STATE CONCURRENCY REQUIREMENTS. HAYWARD RD DOES NOT MEET CURRENT COUNTY ROAD STANDARDS, BUT IS CONSIDERED ADEQUATE BY THE APPLICANT TO SERVICE THIS PROJECT. COUNTY PUBLIC WORKS WILL OBVIOUSLY BE INVOLVED IN REVIEWING THIS PROPOSAL, AND WE WILL WORK WITH THEM IN THE EVENT MINOR IMPROVEMENTS ARE CONSIDERED ADVISABLE, OR IMPOSED AS A CONDITION OF THE PERMIT.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

NO.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

PERHAPS 5 ROUND TRIPS ARE PREDICTED ON A DAILY AVERAGE. THIS IS BASED UPON THE CLUB'S EXPERIENCE WITH THE BULL FROG RD RANGE, WHICH HAD CONSIDERABLY MORE CONVENIENT ACCESS.

g. Proposed measures to reduce or control transportation impacts, if any

DUST ABATEMENT OF THE ON-SITE ROAD, AND CONSTRUCTION OF AN APPROVED ACCESS TO HAYWARD RD.

15. PUBLIC SERVICE

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

ANY INCREASE IN PUBLIC SERVICES WILL BE INSIGNIFICANT, AND LESS THAN THE PROBABLE IMPACT OF THE ALREADY PERMITTED USES.

b. Proposed measures to reduce or control direct impacts on public services, if any.

AS PREVIOUSLY INDICATED, THE APPLICANT WILL COMPLY WITH FIRE MARSHALL REGULATIONS WHICH MAY BE IMPOSED AS A CONDITION OF THE PERMIT, LIKELY INCLUDING A FIREBREAK AND ON-SITE STORAGE OF WATER. A 15000 STORAGE TANK FOR FIRE WATER HAS BEEN INSTALLED ON THE PROPERTY.

THE PROPERTY WILL BE FENCED, POSTED, WITH CONTROLLED ACCESS, LIMITED TO MEMBERS AND INVITED GUESTS, AS WELL AS EMERGENCY PERSONNEL.

16. UTILITIES

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse services, telephone, sanitary sewer, septic system, other.

NONE.

b. Describe the utilities that are proposed for the project, the utility providing the services, and the general construction activities on the site or in the immediate vicinity which might be needed.

NONE AT THIS POINT. ELECTRICITY IS ABOUT ONE MILE AWAY. WATER IS PROBABLY VERY DEEP, GIVEN THIS LOCATION IS MORE THAN 700 FEET ABOVE THE RIVER.

C. SIGNATURE

XXThe above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

MONTY MILLER
Signature

ORIGINAL ON FILE, 5-6-02
Date

THE REMAINING QUESTIONS ARE EXCLUSIVELY FOR REZONE APPLICANTS AND FOR AMENDMENTS TO COUNTY COMPREHENSIVE PLAN AND CODE. UNLESS THESE APPLY TO YOU, THIS IS THE END OF THE SEPA CHECKLIST.

SEPA ENVIRONMENTAL CHECKLIST QUESTIONS FOR NON-PROJECT ACTIONS ONLY. WHEN ANSWERING THESE QUESTIONS, BE AWARE THE EXTENT OF THE PROPOSAL, OR THE TYPE OF ACTIVITIES LIKELY TO RESULT FROM THE PROPOSAL, WOULD AFFECT AN ITEM AT A GREATER INTENSITY OR AT A FASTER RATE THAN IF THE PROPOSAL WERE NOT IMPLEMENTED. RESPOND BRIEFLY AND IN GENERAL TERMS (ATTACH ADDITIONAL SHEETS AS NECESSARY)

1. How would the proposal be likely to increase discharges to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise? Proposed measures to avoid or reduce such increases.
2. How would the proposal be likely to affect plants, animals, fish or marine life: Proposed measures to protect or conserve plants, animals, fish or marine life.
3. How would the proposal be likely to deplete energy or natural resources? Proposed measures to protect or conserve energy and natural resources.
4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands? Proposed measures to protect such resources or to avoid or reduce impacts.
5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses? Proposed measures to avoid or reduce shoreline and land use impact.



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January 20, 2004

Irina Makarow, Siting Manager
EFSEC
P.O. Box 43172
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RECEIVED

JAN 20 2004

**ENERGY FACILITY SITE
EVALUATION COUNCIL**

Re: Comments on the Draft Environmental Impact Statement for the Kittitas Valley
Wind Power Project

Thank you for the opportunity to offer comments on the Draft Environmental Impact Statement (DEIS) for the Kittitas Valley Wind Power Project. I am submitting the following comments on behalf of Sagebrush Power Partners, LLC, (the Applicant). The following comments are based on review of the DEIS by our development team as well as the consultants who were involved in the original studies and field work that were submitted as part of our Application for Site Certification.

Sincerely,

Chris Taylor
Project Development Manager

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General Comments:

The DEIS is generally very thorough and complete and addresses all of the issues that were raised during the public and agency scoping process. The organization of the document is logical and easy to read.

1

Specific Comments by Section and Page:

Fact Sheet

- **Page i, Middle Scenario.**

Comment 1: The nameplate capacity for turbines representing the middle scenario should be corrected to 1.5 MW each, not 1.3 MW.

2

Chapter 1: Summary

- **Page 1-8, Section 1.4.2 Alternative Wind Turbine Locations.**

Comment 2: The last sentence in the first paragraph of this section states:

"...locations were rejected because of lack of sufficient wind resources (leading to operational problems and a lower return of investment)..."

The reality is that locations with an insufficient resource do not lead to operational problems or lower returns on investment. Rather such sites can NOT be developed under current market conditions, because the resulting energy price would be higher than the market will bear. As the DEIS points out, the amount of energy that can be captured from the wind is a function of the cube of the wind speed, thus fairly small differences in wind speeds result in rather dramatic differences in energy output. We suggest the statement in parentheses should be clarified and rewritten as:

3

"...(leading to a price for the project's output that is higher than the market price, thus rendering the project economically infeasible)..."

- **Page 1-10, Section 1.5, Summary of Public Involvement, Consultation, and Coordination with the Yakama Nation (2nd paragraph).**

Comment 3: This paragraph should include the fact that the Yakama Nation has so far declined to participate in any meetings and were offered opportunities for site visits and invited to monitor field surveys conducted in October 2002 by Lithic Analysts, which they also declined to participate in.

4

Applicant Comments on KV DEIS 1

- **Page 1-11, Section 1.7.2 Economic Effects of Lower and Upper End Scenarios.**

Comment 4: This section does not accurately reflect the potential differences in economic effects for the lower and upper end scenarios, and should be revised as described below:

The level of construction employment would be the same for all three scenarios. The number of operations period employees for the upper and lower end scenarios would be within the ranges shown in Table 3.7-11 (i.e. 12-14 for the lower end and middle scenarios and 18-20 for the upper end scenario.)

5

The property tax impacts of the Project are a function of the total Project cost. Total costs are essentially linear with respect to nameplate capacity. Therefore, for the upper end scenario (82 turbines of 3 MW each for a total of 246 MW), the property tax effects would be approximately 35% greater than under the middle scenario ($246-181 = 65 / 181 = 35\%$.) For the lower end scenario (150 turbines of 1.3 MW each for a total of 195), the property tax effects would be approximately 8% greater than under the middle scenario ($195-181 = 14 / 181 = 8\%$.)

6

- **Page 1-12, Section 1.7.6 Radio Interference.**

Comment 5: "To date, information regarding the frequency spectrum of electrical noise generated by the wind turbine generators at locations surrounding the generator has been requested from the Applicant but not provided."

In response to this request, the Applicant is providing information regarding electrical noise generated by wind turbines. Based on analysis and field data measured at an operating wind power facility in Iowa, Applicant's telecommunications consultant, Comsearch, has examined the potential impact of the proposed wind turbines at the Kittitas Valley site on radio communications. Comsearch states that, "Based on our analysis and field measurements of an operating wind power project, we do not believe that the wind turbines will cause significant disturbance in excess of what is typical for suburban areas from either electromagnetic interference or as a physical obstruction." See the attached memorandum prepared by Comsearch on January 16, 2004.

7

- **Page 1-14, Section 1.9.2 Vegetation (1st paragraph).**

Comment 6: The last sentence of the first paragraph states: "Therefore, it is difficult to assess the specific magnitude of cumulative lithosol impacts at the three wind power project sites within the context of the surrounding region." This statement, while technically correct, overstates the uncertainty regarding the potential impacts of the three

8

projects on the amount of lithosolic habitat present in the surrounding area. Even absent a detailed habitat survey of the entire surrounding area, it is clear that a large amount of lithosol exists in Kittitas County and that the cumulative impacts of the three projects would not be significant relative to the total lithosol habitat in the County.

Qualitative observational evidence suggests that lithosol habitats are not uncommon in the general project vicinity. There are several wide, sloping ridgelines in the project area composed almost entirely of shallow-soiled habitats. In many places, this contiguous habitat extends for hundreds of meters on both sides of the project impact corridors. Furthermore, in accessing the project corridors, the field botanists crossed other extensive patches of lithosol on adjacent ridgelines. While it is not possible at this point to calculate the exact percentage of lithosol in the vicinity that will be affected by the project (as the overall extent is not known), it is safe to assume that the impact corridors represent only a small fraction of the overall total.

Furthermore, it has been noted on this, and other projects, that lithosolic habitats are more resistant to indirect project impacts than most other cover types. In other words, the vegetative effects of the project would not be expected to extend far into the surrounding shallow-soiled habitats outside of the impact corridor. In particular, non-native weeds appear to have more difficulty establishing in lithosolic habitats than in the deeper-soiled areas. Furthermore, fire appears to have less of a vegetative effect in these habitats, and may not spread as easily across these sparsely vegetated areas.

- Page 1-16, Section 1.9.4 Health and Safety (2nd paragraph).

Comment 7: "Even with implementation of strict fire protection and prevention measures, the cumulative risk of potential fires associated with construction of the three proposed wind turbine projects could remain significant."

While construction of the Project will potentially increase fire risk in the proposed Project areas for several reasons, especially if the construction period overlaps those of other proposed projects, the resulting risk level is not expected to be significant. The risk is mitigated by rigorous monitoring, the presence of on-site personnel with access to firefighting equipment, and construction of access roads designed to carry heavy loads, including firefighting vehicles. The language presented in the Desert Claim Wind Power Project DEIS more accurately describes the potential for fires associated with construction and the mitigation and prevention measures that will be implemented. It concludes that the cumulative increased risk of fire during construction will not likely be significant:

"While wind energy project construction would introduce additional human activity, machinery and fuels into the affected environment for each project, it would also result in higher levels of watchful presence in and around each project site, the use of stringent fire protection measures, and the presence of trained personnel who could respond to fire hazards. In addition, the construction program for each project would include contracted fire protection services from the respective local rural fire district, which

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cont.

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would facilitate response to any incidents that might occur. Based on the heightened level of fire prevention and protection that would exist during project construction, it is unlikely [emphasis added] that the cumulative increased risk of fire during this period would be significant. (Desert Claim Wind Power Project, DEIS, Section 4.8 'Health and Safety', page 4-12)

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cont.

- **Page 1-20, Section 1.9.13 Public Services and Utilities (1st paragraph).**

Comment 8: It should be noted that the Applicant will provide mitigation for potential additional demand on law enforcement, fire protection, and emergency medical services.

10

- **Page 1-22, Table 1-3: Summary of Impacts and Mitigation: Earth Resources.**

Comment 9: The 3rd paragraph under impacts to Earth Resources during construction inaccurately describes the landslide potential along proposed Project-area access roads during the construction period. To illustrate this inaccuracy, the following section compares the landslide discussion in Table 1.3 of the DEIS with the landslide discussion provided in the Applicant's Application for Site Certification (ASC).

Table 1.3 of the DEIS states the following:

Construction (cut and fill) of access roads in some areas could occur on or under relatively steep slopes. As a result, some sliding of soil and alluvial materials could be expected during construction.

Section 2.15.5, 'Landslide Potential and Avoidance', of the ASC states the following:

In the event that facilities such as roads are constructed below slopes steeper than 21 to 30 degrees, soil movement and rock fall from alluvium overburden exposed along road cut banks could impact these roads if the cut bank slope were to fail (i.e., during an earthquake). However, the proposed site layout does not include any roads below such steep slopes. Furthermore, because Project access roads are used infrequently, the risk associated with rock fall and/or slope movement to a vehicle and driver is low.

11

As shown above, the discussion in the DEIS neglects to note that the proposed site layout does not include any roads below slopes steeper than 21 to 30 degrees. Therefore, the landslide impacts presented in the DEIS is not accurate. The language in the DEIS should be revised to reflect the fact that no roads are proposed below slopes steeper than 21 to 30 degrees.

- **Page 1-27, Mitigation Measures: TAC Monitoring (1st paragraph).**

Comment 10: The DEIS incorrectly states that the Applicant has entered into “a verbal agreement” with WDFW to conduct three years of operational monitoring studies. This sentence should be revised, as proposed below:

In accordance with the WDFW’s 2003 Wind Power Guidelines, the Applicant has proposed a minimum of one year post-construction monitoring, which will be reviewed by the Technical Advisory Committee (TAC). Following that period, the TAC will recommend to EFSEC whether additional monitoring is warranted.

12

- **Page 1-28, Acquisition and Enhancement of Onsite Habitat (2nd bullet).**

Comment 11: The DEIS states that, “The amount of area required to mitigate for temporary and permanent loss of lithosol habitat should be determined based on further consultation with WDFW. If the appropriate amount of lithosol habitat is not identified at the mitigation parcel, additional lithosol habitat should be identified and acquired for preservation.”

This statement should be deleted, as no additional mitigation measures have been deemed necessary by WDFW. Applicant’s habitat and wildlife mitigation plans have been reviewed and deemed adequate by WDFW. In a letter dated September 17, 2003, WDFW stated that the agency had “...determined that [Zilkha’s] proposed mitigation site would provide adequate mitigation for the impacts to wildlife habitat that are expected to result from the Kittitas Valley project.”

13

- **Page 1-31, Construction Impacts, Welding (1st paragraph, last sentence).**

Comment 12: In this sentence, the DEIS states that, “The potential fire risk from human activities would be greatest for the upper end scenario because this scenario would involve the greatest amount of activities such as ground disturbance (approximately 317 acres) and welding (on a per turbine basis) that could lead to accidental fire or explosion.”

This sentence should be revised. Welding is not required at WTG pads during erection; therefore, the risk of accidental fire or explosion associated with welding is irrelevant.

14

- **Page 1-31, Operations and Maintenance Impacts, Ice Throw (3rd paragraph).**

Comment 13: The DEIS statement that “Potential public health and safety risks caused by ice falling off rotating blades could occur within 50 to 328 feet of an operating turbine tower” should be revised to include the following information:

As stated in Section 2.15 ‘Protection from Natural Hazards’ of the KVVPP Responses to Initial Completeness Report dated April 23, 2003, “It is important to note that while more than 55,000 wind turbine generators have been installed world-wide, there has been no reported injury from ice thrown from wind turbines.”

15

International experience indicates no significant risks associated with tower collapse, components falling from towers, ice throw or blade throw. Despite the very rare destruction of a wind turbine, no member of the public has ever been killed or injured by a wind turbine other than a parachutist in Germany who jumped into one.

15
cont.

- **Page 1-36, Measures to Minimize Risk of Tower Collapse and Blade Throw (last sentence).**

Comment 14: That last sentence states that:

“Applicant should adjust the siting of individual turbines, as necessary, to avoid encroaching upon a 260- to 410-foot setback around private roads.”

The 260’-410’ range describes the ground-to-tip height under different WTG sizes. The setback should not apply to new private roads constructed specifically for the Project. This sentence should be rephrased as:

16

“Applicant should adjust the siting of individual turbines, as necessary, to avoid encroaching upon a tip height setback from established and existing frequently used private roads. Set backs would not apply to new private roads constructed by the Applicant specifically for the Project.”

- **Page 1-36, Measures to Minimize Shadow Flicker Effects**

Comment 15: The proposed mitigation measures for minimizing shadow flicker effects are not unreasonable. However, the DEIS does not propose a threshold (in terms of hours per year or maximum number of hours per day that shadow flicker would be experienced at a given receptor) above which such mitigation measures should be considered. Based on experience at other operating wind power projects and the advice of the Applicant’s consultant, Wind Engineers, the Applicant believes that such mitigation measures should be considered only for those receptors that meet all of the following conditions:

- They are expected to experience more than 30 hours per year of shadow flicker
- They are located less than 1500 feet from the nearest turbine
- They have windows facing the turbine(s) that would create the shadow flicker effect
- The turbine(s) causing the shadow flicker can be seen through the window (i.e. is not obscured by trees, shades, or other obstructions that would eliminate the shadow flicker effects)
- The affected room(s) are occupied

17

- **Page 1-39, Additional Recommended Mitigation Measures: Recreational Uses on DNR Property.**

Comment 16: It should be noted that roughly half of the DNR lands within the project area currently do not have legal public access. The only DNR lands that currently allow public access are in Sections 10 and 16 within Township 19N, Range 17E.

18

- **Page 1-43, Socioeconomic Impacts (2nd paragraph).**

Comment 17: The conclusion in the last sentence should be revised to reflect the fact that the socioeconomic impacts of a 60a MW gas-fired power plant would result in fewer permanent jobs and substantially lower property tax revenues. A 60 aMW gas-fired generation facility would pay substantially lower property taxes than a 181.5 MW wind project because a 60aMW gas-fired generation facility would have substantially lower capital costs. Typical capital costs for gas-fired generation are roughly half that of wind generation on a per unit of capacity basis (approximately \$500,000 per MW of capacity vs. approximately \$1,000,000 per MW of capacity for wind generation.)

19

- **Page 1-46, Visual Mitigation Measures, Planting Native Conifers (1st bullet).**

Comment 18: The recommendation that trees be planted to screen uphill views toward turbines located within a one-mile distance is not feasible and should be deleted. The Applicant has already explored this tree planting option and has found that it would not be feasible. One constraint is that the Applicant does not own or have leases on the land in the foreground zones of heavily traveled roads from which there would be uphill views of turbines. Further the Applicant does not have the power of eminent domain and there is no certainty that the Applicant would be able to obtain permission from landowners for tree planting in these areas. Even if the Applicant were able to obtain permission, any trees planted in these areas would require irrigation to become established, and no developed water sources are available in these areas to provide the irrigation water that would be needed. It should be noted that the Applicant has made a commitment to plant scattered groupings of native trees in the area around the substation and O&M facility to provide partial screening of these installations. Tree planting in this area is feasible because the Applicant will have control over the land where the planting will take place and because the trees can be irrigated using water from the well that will be developed at the O&M facility.

20

- **Page 1-46, Visual Mitigation Measures, WTG Foundations (3rd bullet).**

Comment 19: The recommendation to build all turbine foundations at existing grade should be deleted. In order to maintain adequate drainage for precipitation and snow melt, all turbine foundations need to be at least 1-2 feet above the surrounding natural grade to keep tower anchor bolts and electrical panels out of these naturally draining waters. If foundations were installed at grade, water from the surrounding terrain would tend to collect around the tower anchor bolts and possibly the internal electrical panels causing potential safety and corrosion hazards.

21

The visual resources analysis does not include findings that justify the recommendation that the turbine foundations should not extend above the existing grade. The impacts identified in the analysis have been related to the overall height and form of the turbines, and not to their relationship to the ground plane. Review of the simulations presented in the visual resources analysis suggests that given the distance of the turbines from the areas from which they would be viewed, and the angle of view, the details of the relationship of the turbine bases to the ground plane would not be evident.

21
cont.

The DEIS recommendation that "...grasses and other plants used in post-construction restoration efforts should continue to the base of the tower so that the tower is visually connected to the earth" contradicts a recommendation on Page 1-32 of the DEIS "Fire and Explosion Risk Mitigation Plan" that states that "Footprint areas around turbines and substation would be graveled with no vegetation" to help decrease the risk of fire during operation activities. Given the findings of the visual resources analysis do not support this recommendation (to have grass growing up to the base of each turbine) and the fact that fire risk can be mitigated by maintaining a gravel area around the base of each turbine foundation, the recommendation in this section should be deleted.

22

- **Page 1-46, Visual Mitigation Measures, Transformer and Control Panels (5th bullet).**

Comment 20: The recommendation to build the turbines with the transformers located inside the tower should be deleted. Pad mount transformers are typically only 8 feet tall and are visually dwarfed by the turbine tower next to which they sit. Although some wind turbines have the transformer mounted in the nacelle at the top of the tower to reduce cable sizes inside the tower and to provide counter balance in the nacelle, most wind turbine installations have the step-up transformers outside of the towers mainly for reasons of standardization, reliability, ease of access and cost. With an internally-mounted transformer, complicated access to the transformer makes repair time for simple problems longer and full replacement can take more than a week. Internal turbine transformers are a specialized, non-standard item whereas outdoor pad mount transformers are standard and can be replaced fairly quickly. Internal transformers must be custom-made, which increases downtime and concomitantly reduces energy generation and project reliability.

23

No analysis is presented that justifies the recommendation that transformers and control panels be accommodated within the bases of the turbine towers. The transformers that have been proposed as a part of the project will be approximately 8 feet wide, 8 feet long, and 8 feet high, and the transformer housings will be painted earth tone colors to permit integration into the surrounding landscape. Given the small size of the transformers, the use of non-contrasting colors for their exteriors, and their distance from the areas from which the project will be viewed, their role in contributing to any visual impacts that the project might create will be very minor.

- **Page 1-46, Visual Mitigation Measures, Conservation Easements (6th bullet).**

Comment 21: This recommendation should be deleted. No analysis is presented that justifies the recommendation that the Applicant acquire conservation easements on lands in the foreground of important views toward the turbine. The assertion that *“This approach would conserve natural areas so that the visual contrast between the wind turbine and the land maintains its order and purity.”* is not backed up with an explanation of what this statement really means. In addition, no evidence is presented that the aesthetic principle that it seems to suggest is valid, or that implementation of this measure would attenuate the project’s visual effects in a meaningful way. Finally, the Applicant is not aware of any existing precedent for requiring such conservation easements for visual impacts for either other wind power projects or other EFSEC-approved facilities. The Applicant does not have the power of eminent domain and would not have the ability to acquire such easements.

24

- **Page 1-47, Construction Impacts: Aviation Safety (5th paragraph).**

Comment 22: The statement that *“Temporary construction equipment such as cranes and derricks that would be used to erect turbine towers could pose a hazard to aviation safety during the construction period”* contradicts what the Federal Aviation Administration (FAA) stated in a letter issued to the Applicant on August 22, 2002.

According to the FAA letter, an aeronautical study was completed and *“...revealed that the structure [wind turbine] does not exceed obstruction standards and would not be a hazard to air navigation...This determination does [emphasis added] include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure [wind turbine].”* See FAA letter attached.

25

There is a process in place to notify FAA prior to any construction activities that may affect aviation safety.

- **Page 1-49, Additional Recommended Mitigation Measures: Traffic Safety.**

Comment 23: This recommendation should be revised to note that if other development on Bettas Road increases traffic (i.e. development not related to the proposed project), Applicant should only be responsible for the Project’s proportional share of costs associated with necessary safety improvements to the junction of Highway 97 and Bettas Road. The new owners of the former Archambeau property located on Bettas Road (the Henley Group) are currently marketing 25 lots for housing development. If 25 new homes are constructed on these lots, the average daily trips (ADT) on Bettas Road would likely increase significantly from the current ADT of 26. This and other possible developments should be considered when determining responsibility for costs to implement road improvements on Bettas Road.

26

- **Page 1-51, Air Quality Operations and Maintenance Impacts (1st paragraph).**

Comment 24: The DEIS states that “The actual effect on global warming caused solely by project emissions, either from fabrication, transport, construction or operations, is unknown.”

This paragraph should be revised to reflect the fact that numerous independent studies have concluded that the life cycle impacts of wind power projects are strongly positive in terms of total energy use. This information was presented in Section 3.5, Page 1, of the Applicant’s ASC, as noted below.

27

“Numerous independent life cycle analyses of wind power projects have shown that wind farms have a very high “energy payback” (ratio of energy produced compared to energy expended in construction and operation), and that wind’s energy payback is higher than that of thermal power plants. Several studies have found that it generally takes less than six months of operation for a wind farm to produce the total amount of energy used to construct the equipment and build the project. (Energy Center of Wisconsin, 1999; Grum-Schwensen, 1990; G. Hagedorn et al, 1991; Gydesen. D et al, 1990.)”

- **Page 1-52, Additional Recommended Mitigation Measures: Noise Barriers (7th bullet).**

Comment 25: Temporary noise barriers are not considered to be very effective in open field construction activities mainly because they may impede visual contact with workers, which could lead to increased safety risks. Vertical noise barriers are expected to blow over in the heavy winds at the Project site creating a further safety hazard. Since there is more than 1,000 feet between the nearest turbine site and non-participating residences, it is not expected that construction noise would be enough to merit noise barriers.

28

- **Page 1-56, Television Reception.**

Comment 26: The DEIS states that: “Television systems that operate at higher frequencies, such as satellite receivers, are line-of-sight systems, and physical interference from the turbine towers or blades could degrade television reception, particularly in the Swauk Prairie portion of the project area.” This statement is inaccurate and should be revised. Only “off-air” television signals would be potentially affected by the project.

Satellite television broadcast is immune to the broad band noise and the ghosting and blockage that can affect terrestrial television signals. The reason for this is that the satellite systems operate at much higher frequencies so they are unaffected by the broad band noise. Cable television facilities receiving television signals from satellites are also unaffected by broad band noise and ghosting and blockage interference.

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The conclusion of the studies conducted by the Applicant’s telecommunications consultant, Comsearch, is that the only type of potential television interference that could

occur as a result of the project is “off-air” television reception, i.e. from broadcast antennae to homes with television antennae. As detailed in the ASC, the Applicant has proposed additional study and mitigation to address this potential concern.

29
cont.

- **Page 1-56, Radio Interference.**

Comment 27: The DEIS states that the Applicant has not provided information regarding the frequency spectrum of electrical noise generated by the wind turbine generators. In response to this request, the Applicant is submitting a technical memorandum along with these comments, which reports the results of actual field measurements of such electrical noise at an operating wind project developed by Zilkha Renewable Energy in Joice, Iowa. The results of these field measurements indicate that the anticipated level of electrical noise at the location of the amateur radio operator who raised this concern regarding potential radio interference would be less than the background level of electrical noise for suburban areas of the United States. Therefore, the project is not anticipated to result in degradation of radio reception at the individual’s house.

30

Applicant’s telecommunications consultant, Comsearch, has examined the potential impact of the proposed wind turbines at the Kittitas Valley site on radio communications. Comsearch states that, “Based on our analysis and field measurements of an operating wind power project, we do not believe that the wind turbines will cause significant disturbance in excess of what is typical for suburban areas from either electromagnetic interference or as a physical obstruction.” See the attached memorandum prepared by Comsearch on January 16, 2004.

- **Page 1-57, Mitigation Measures, Cell Phone Degradation.**

Comment 28: The recommended mitigation measures for potential cell phone degradation are not justified and should be deleted. As the ASC stated, and the DEIS authors concurred, there is no reason to anticipate degradation of cell phone reception in the project area. No evidence has been cited in the DEIS to suggest that wind turbines have been responsible for degradation of cell phone reception in any of the hundreds of locations around the world where wind turbines are currently operating. Given the fact that cell phone service is unaffected in many areas which already have large numbers of operating wind turbines and the lack of evidence that wind turbines interfere with cell phone reception, there is no reason to conduct additional studies on this subject.

31

- **Page 1-58, Mitigation Measures, Radio Interference.**

Comment 29: The DEIS states that the Applicant should provide data regarding the frequency spectrum of electrical noise generated by wind turbine generators prior to construction. As described in comment #27, the Applicant is including with these comments the results of field measurements of electrical noise from an operating wind power project developed by Zilkha Renewable Energy in Joice, Iowa. These measurements show that, at ¼ mile from operating turbines (the actual distance to the

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house of the individual who raised this issue during the EIS scoping process) the level of electrical noise generated by the wind turbines would not affect radio operations. Given that this analysis concludes that there will be no impact to radio operations, the mitigation described in the DEIS should not be necessary. 32
cont.

Chapter 2: Proposed Action and Alternatives

- **Figure 2-1, Project Site Layout, Middle Scenario.**

Comment 30: Map should differentiate from public and private roads. 33

Based on field review of the proposed underground cable route between wind turbine G-19 and the PSE Substation, Applicant’s engineers recommended altering the route from the east side of state highway 97 to the west side to reduce construction on steeper slopes and across stream beds. This alteration of the underground cable route was examined in the field, documented and was submitted along with a revised Joint Aquatic Resources Permit Application Form (JARPA) to the US Department of the Army Seattle District Corps of Engineer’s Regulatory Branch on January 12, 2004. Copies of the revised application have also been sent to Washington State Department of Ecology, Washington Counsel for the Environment, and Shapiro and Associates.

- **Figure 2-4, Typical Nacelle.**

Comment 31: This figure should note that the photo is courtesy of Vestas American Wind Technology. 34

- **Page 2-18, Section 2.2.3 Access Roads.**

Comment 32: This section should be clarified to make clear that only access roads along turbine strings are 34 feet wide (i.e. between individual turbines) whereas access roads between turbine strings are 24 feet wide. 35

- **Page 2-31, Section 2.2.5 Site Security (2nd paragraph).**

Comment 33: This section should be revised to clarify that project access gates will be open only while O&M staff are present on a particular access road and will be locked by project O&M personnel after working hours. 36

- **Page 2-38, Section 2.6.2 Alternative Wind Turbine Locations (3rd paragraph).**

Comment 34: See Comment 2 to page 1-8, Alternative Wind Turbine Locations. 37

- **Page 2-54, Section 2.8 Benefits or Disadvantages or Reserving Project Approval for a Later Date (last sentence).**

Comment 35: This sentence states that the advantages of reserving project approval for a later date “may include a better understanding” of the benefits to the local economy and potential effects on property values. Elsewhere in the DEIS it is stated that the project will have no effect on property values and will benefit the local economy. The fact that certain opponents of the proposed project do not accept the findings of multiple independent studies does not constitute a lack of understanding of these issues. It is doubtful that any further study would be accepted by some of these skeptics.

38

Chapter 3: Affected Environment, Impacts, and Mitigation Measures

- **Page 3.1-10, Section 3.1.2 Landslides.**

Comment 36: This section incorrectly describes the landslide potential along proposed Project-area access roads during the construction period. To illustrate this concern, the following section compares the landslide discussion Sections 3.1.2, ‘Impacts of Proposed Action’, of the DEIS with the landslide discussion provided in the Applicant’s Application for Site Certification (ASC).

The DEIS Landslides section included under Section 3.1.2, ‘Impacts of the Proposed Action, states the following:

Construction (cut and fill) of access roads in some areas could occur on or under relatively steep slopes (i.e., slopes steeper than 21 to 30 degrees). As a result, some sliding of soil and alluvial materials could be expected during construction, particularly if the cut bank slope were to fail (i.e., during an earthquake). Site-specific BMPs for site slopes would be implemented to control landslides and limit erosion in these areas (see Section 3.1.4, Mitigation Measures, for further discussion).

39

Section 2.15.5, ‘Landslide Potential and Avoidance’, of the ASC states the following:

In the event that facilities such as roads are constructed below slopes steeper than 21 to 30 degrees, soil movement and rock fall from alluvium overburden exposed along road cut banks could impact these roads if the cut bank slope were to fail (i.e., during an earthquake). However, the proposed site layout does not include any roads below such steep slopes. Furthermore, because Project access roads are used infrequently, the risk associated with rock fall and/or slope movement to a vehicle and driver is low.

As shown above, the discussion in the DEIS neglects to note that the proposed site layout does not include any roads below slopes steeper than 21 to 30 degrees. Therefore, the landslide impacts presented in the DEIS overstates the potential landslide risk.

- **Page 3.1-10, Section 3.1.2 Erosion.**

Comment 37: The DEIS Erosion section included under Section 3.2.1, 'Impacts of the Proposed Action', is misleading and overstates the potential for significant erosion at the Project site. The discussion in its current form could lead the reader to conclude that erosion could occur throughout both disturbed and non-disturbed areas within the Project boundary. The section as it is currently written states the following:

Significant erosion would result from a combination of total site disturbance and cut and fill activities. Total site disturbance would range from 231 to 371 acres. Cut and fill requirements are summarized in Table 3.1-2. The largest volume of cuts and fill would be required for the lower end scenario, with an estimated 328,559 cubic yards. Compliance with the requirements of the project's stormwater construction permit and implementation of appropriate BMPs would minimize this impact (see Section 3.1.4, Mitigation Measures, for further discussion).

We suggest that the statement be modified as follows:

"Significant erosion could occur within areas disturbed by project construction and corresponding cut and fill activities. Cut and fill requirements are summarized in Table 3.1-2. The largest volume of cuts and fill would be required for the lower end scenario, with an estimated 328,559 cubic yards. However, compliance with the Project's storm water construction permit and implementation of the Project's Storm Water Pollution Prevention Plan and appropriate BMPs, would minimize this impact in disturbed areas and reduce or eliminate the potential for erosion to occur outside the footprint of the proposed Project."

It should be note that the ASC includes a very detailed and lengthy discussion on how the Applicant plans to control surface water runoff at the Project site (see Section 2.10, 'Surface Water Runoff'). The planning activities and follow-on implementation of storm water BMPs, described in the ASC, will significantly reduce the potential for significant erosion resulting from project related activities.

- **Page 3.2-29 and 3.2-30, Section 3.2.3 Construction Impacts on Vegetation (6th and 7th paragraph).**

Comment 38: See *Comment 6* to page Page 1-14, Section 1.9.2 Vegetation.

- **Page 3.2-48, Section 3.2.3 Elk and Mule Deer (1st paragraph).**

Comment 39: This section should be revised to reflect the fact that the Applicant has agreed that controlled hunting would be allowed if necessary to manage these herds. 42

- Page 3.2-55, Section 3.2.5 Monitoring and Adaptive Management. 43

Comment 40: See comment #10.

- Page 3.2-56, Section 3.2.5 Acquisition and Enhancement of Onsite Habitat (5th paragraph). 44

Comment 41: The recommendation of replanting shrubs and implementing riparian replanting in the proposed mitigation parcel is not required according to WDFW's Wind Power Guidelines. 44

- Page 3.4-1, Section 3.4.1 Affected Environment (2nd paragraph, last sentence). 45

Comment 42: It should be noted that there is considerable human activity around the proposed project site. For example, 2,800 cars per day travel on Highway 97. 45

- Page 3.4-9, Section 3.4.2 Risk of Turbine Blade Throw (1st paragraph). 46

Comment 43: International experience indicates no significant risks associated with tower collapse, components falling from towers, ice throw or blade throw. Despite the very rare destruction of a wind turbine, no member of the public has ever been killed or injured by a wind turbine other than a parachutist in Germany who jumped into one. 46

- Page 3.4-22, Section 3.4.4 Mitigation Measures, Shadow Flicker. 47

- Comment 44: See comment #15. 47

- Page 3.5-9, Section 3.5.1 Pacific Northwest Markets for Renewable Energy Resources. 48

Comment 45: This section should note that PacifiCorp, the parent company of Pacific Power, is also currently in the process of soliciting proposals for up to 1,100 MW of wind power. A copy of the draft RFP is available on-line at: <http://www.pacificcorp.com/File/File32239.pdf> 48

- Page 3.5-13, Section 3.5.2 Other Nonrenewable Resources (2nd paragraph, last sentence). 49

Comment 46: The last sentence should be rewritten to include the word "NOT" as shown: 49

“The estimated quantities of fuel and other nonrenewable resources required for project operation and maintenance activities would NOT affect the availability of these resources locally or regionally.”

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cont.

- **Page 3.6-16 and 3.6-17, Discussion of Swift Water Corridor Vision Plan (3rd paragraph, last sentence).**

Comment 47: The conclusions about the potential impacts of the project on views from SR 10 are overstated. A conclusion that would be more consistent with what the Swift Water Corridor Vision Plan says and what the DEIS Visual Resources chapter concludes would be: *“Proposed turbines would be visible on the ridgelines from some portions of SR 10, and in some areas, could have a moderate impact on visual quality.”*

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- **Page 3.8-6, Section 3.8.3, Impacts of the Proposed Action, Table 3.8-1.**

Comment 48: The text in the first row of Table 3.8-1 should be revised to state that the Applicant has agreed to avoid ground-disturbing activity within 100 feet of all documented cultural resource sites.

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- **Page 3.8-6, Section 3.8.3, Impacts of the Proposed Action, Construction Impacts (1st sentence.)**

Comment 49: As described in the comment above, the Applicant has agreed to avoid ground-disturbing activity within 100 feet of all documented cultural resource sites, therefore, this sentence is misleading. The first sentence of this section should also be revised to reflect the fact that no direct impacts to known archeological sites are expected as a result of construction of the project. If any future changes to the project layout occur that involve impacts to areas not previously surveyed for cultural resources, additional surveys will be conducted to document and avoid any archeological sites.

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- **Page 3.9-50, Section 3.9.5 Additional Recommended Mitigation Measures (2nd paragraph).**

Comment 50: The discussion includes a reference to concerns expressed by commentors about “lost sleep” caused by the proposed turbine lighting. This discussion should be expanded to note that it is highly unlikely that the project’s nighttime navigation lights would cause sleep disturbance. The nighttime lights will be red and will flash at an intensity of 2,000 candela (vs. 20,000 candela for the white lights that will flash during the daytime). The navigational lights are designed to concentrate the beam in the horizontal plane, thus minimizing the diffusion of light down toward the ground and up toward the sky. Experience at existing wind power sites in the Northwest indicates that although the flashing red navigation warning lights have become visible elements in the night sky, they have not created a detectable increase in ambient light conditions at off-site locations.

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- **Page 3.9-50, Section 3.9.5 Additional Recommended Mitigation Measures, Planting Native Conifers (2nd bullet).** 54

Comment 51: See comment #18.

- **Page 3.9-51, Section 3.9.5 Additional Recommended Mitigation Measures, WTG Foundations (1st bullet).** 55

Comment 52: See comment #19.

- **Page 3.9-51, Section 3.9.5 Additional Recommended Mitigation Measures, Transformers and Control Panels (3rd bullet).** 56

Comment 53: See comment #20.

- **Page 3.9-51, Section 3.9.5 Additional Recommended Mitigation Measures, Conservation Easements (4th bullet).** 57

Comment 54: See comment #21.

- **Page 3.9-51, Section 3.9.6 Significant Unavoidable Adverse Impacts.**

Comment 55: This discussion has a highly speculative character. It needs to be rewritten to link back to the specifics of the preceding analysis. In addition, reference must be made to the specific data that provides a basis for the overall assertion that “For many viewers, the presence of the wind turbines represents a significant unavoidable adverse impact because it significantly alters the appearance of the rural landscape over a large area of the Kittitas Valley.” This sentence and the one that follows it both use the term “significant”. The use of this term has not been explained or given an operational definition. 58

- **Page 3.12-8, Section 3.12.2 Blasting Noise (2nd paragraph).** 59

Comment 56: In the first sentence of the second paragraph it should be noted that the closest residential structure (*Genson property*) is owned by a participating landowner.

- **Page 3.12-14, Section 3.12.2 Modeled Noise Levels (2nd paragraph).** 60

Comment 57: The last sentence of the second paragraph should be rephrased as:

“Therefore, the estimated noise levels at structures and property lines in Table 3.12-5 may increase or decrease by 5 dBA depending on final turbine selection. Under the loudest scenario, the EDNA Class C threshold would be satisfied at all property lines.

The EDNA Class A threshold will potentially be exceeded at five structures (Map ID's: 58, 50, 49, 417, 117)." It is important to note that structures 49, 50, and 58 are owned by project participants and cannot be considered regarding a violation under WAC 173-60-040. WAC 173-60-040 does not apply to structures on the property generating the noise sources. *WAC 173-60-040 state; "No person shall cause or permit noise to intrude into the property of another person which noise exceeds the maximum permissible noise levels set forth below in this section."* The noise, which may potentially exceed the threshold impacting each of these structures, is generated on the structures property and thus they are not receiving properties.

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cont.

- **Page 3.12-16, Section 3.12.2 Increase in Ambient Background Noise Levels (1st paragraph).**

Comment 58: The conclusion of this section, that the potential effects of operations could be perceived as "adverse" and thus require additional mitigation is not supported by State of Washington noise rules. As described in the ASC and the DEIS, the project is expected to, and indeed must, comply with all applicable state and local noise regulations. If the project complies with all applicable noise limits, such additional mitigation is not justified.

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- **Page 3.12-18, Section 3.12.4 Construction Mitigation Measures.**

Comment 59: Since the DEIS states that "...no specific receivers are identified as being adversely affected by construction noise..." the recommended mitigation measures should only be required when reasonable and feasible to help minimize the effects of construction noise in the project area. The lack of an adverse effect doesn't justify the need for measures 5, 6, and 7.

Temporary noise barriers are not considered to be very effective in open field construction activities mainly because they may impede visual contact with workers, making for increased safety risks. Vertical noise barriers are expected to blow over in the heavy winds at the Project site creating another safety hazard. Since there is more than 1,000 feet between the nearest turbine site and non-participating residences, it is not expected that construction noise would be significant enough to merit noise barriers.

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- **Page 3.13-15, Section 3.13.2 Television Reception (1st paragraph).**

Comment 60: The language in this section should be clarified to reflect the following information provided by the Applicant's telecommunications consultant, Comsearch:

WTG generators do generate broad band noise because of the arcing that occurs at the take-off points of the generators or in the switching of the power in the generators. This is called corona-caused interference and is the result of electrical discharges caused by a

63

breakdown of the air around conductors carrying very high voltages. It produces an arc that has broad band electromagnetic energy that covers the frequency range from DC - 100 MHz.

Terrestrial television broadcast services operate in three distinct bands, low VHF (Channels 2-6), high VHF (Channels 7-13) and UHF (Channels 14-89). The electromagnetic noise generated by corona discharge or the turbine generators would only affect low VHF television reception and only those receivers in close proximity of the high voltage transmission lines or the turbine generators.

Satellite television broadcast is immune to the broad band noise and the ghosting and blockage that affect terrestrial television signals. The reason for this is that the satellite systems operate at much higher frequencies so they are unaffected by the broad band noise.

Cable television facilities receiving television signals from satellites are unaffected by broad band noise and ghosting and blockage interference. However, if the cable television facility is receiving terrestrial television broadcast signals directly from a television broadcast antenna it may be subject to the same type of interference as any normal television receiver. Mitigation measures for the potential interference to television services are discussed in Section 3.13.4.

- **Page 3.13-16, Section 3.13.2 Cell Phone Interference (2nd paragraph).**

Comment 61: This section should be revised to reflect the fact that none of the experts who have examined this subject (neither those contracted by the Applicant nor by ESFEC) have found any evidence whatsoever to suggest that wind turbines cause problems for cell phone service. This issue was brought up as a potential concern during the EIS scoping process, but no evidence has been discovered that such impacts could occur or have ever occurred at other wind power projects. In addition, this is not identified as a potential impact of the Desert Claim Wind Power Project in the DEIS for that proposed project.

- **Page 3.13-21, Section 3.13.4 Cell Phone Degradation (last paragraph).**

Comment 62: As described in the comment to Page 3.13-16, Cell Phone Interference, there is no reason to believe that cell phone service will be affected by the project. Therefore, the proposed mitigation measures are not justified and should be deleted. In the absence of any evidence that such impacts are likely to occur, requiring additional studies of cell phone reception is unreasonable. By comparison, the DEIS for the Desert Claim Wind Power Project does not include any proposed mitigation for potential cell phone interference.

- **Page 3.14-5, Section 3.14.6 Vegetation (2nd and 3rd paragraph).**

Comment 63: See Comment #6.

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cont.

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- Page 3.14-11, Section 3.14.8 Health and Safety (2nd paragraph).

Comment 64: See Comment #7.



19700 Janelia Farms Blvd
Ashburn, VA 20147
703-726-5500

MEMORANDUM

To: Chris Taylor, Zilkha Renewable Energy
From: Les Polisky, Comsearch

January 16, 2004

Subject: Effects of Kittitas Valley Wind Power Project on 10-meter Amateur Radio Operations

In response to your request, we have examined the potential impact of the proposed wind turbines at the Kittitas Valley site on amateur radio operations through analysis and use of field data taken from one of Zilkha's operating wind power facilities in Iowa. There are two factors that we have examined in analyzing whether a wind power facility will affect the operation of a 10-meter amateur radio, electromagnetic noise generation by the turbines and potential degradation of the antenna characteristics of the radio system by the physical presence of the turbines.

To determine whether the electromagnetic noise would degrade the sensitivity of the amateur radio system Comsearch used measured and engineering reference data. Comsearch measured the electromagnetic noise characteristics of the wind power turbines at a Zilkha developed facility in Joice, Iowa. The noise level in a 1 MHz bandwidth at 50MHz and a separation distance of 240 feet was measured to be -61 dBm/MHz or 7.9×10^{-10} W/MHz. For a suburban setting in the United States the median noise value for man-made noise at 50 MHz is given to be -83 dBm/MHz.¹ At 30 MHz, the frequency for 10-meter radios, the man-made noise level is 5 dB higher than at 50 MHz. Based on this, it is assumed the emission from the wind turbines will also be 5-dB higher at 30 MHz. Therefore, at 30 MHz the noise level generated by the wind turbine at a separation distance of 240 feet will be -56 dBm/MHz or 2.5×10^{-9} W/MHz. The man-made noise is -78 dBm/MHz or 1.6×10^{-11} W/MHz at 30 MHz.² The electromagnetic noise level from the wind turbines decreases as the square of the separation distance increases. The following table illustrates the noise level at increasing distances from the wind turbine at a 30 MHz frequency.

¹ Reference Data for Engineers: Radio, Electronics, Computer, and Communications, Seventh Edition, 1985, page 34-9

² *ibid.*

<u>Distance</u>	<u>Noise Level (at 30 MHz)</u>		<u>Ratio to Median Noise level</u>
	<u>dBm/MHz</u>	<u>Watts/MHz</u>	<u>dB</u>
240'	-56	2.5×10^{-9}	22
480'	-62	6.3×10^{-9}	16
960'	-68	1.6×10^{-9}	10
1920'	-74	4.0×10^{-10}	4
0.5 mile	-76.8	2.1×10^{-10}	1.2
0.57 mile	-78	1.6×10^{-11}	0
0.75 mile	-80.3	9.3×10^{-12}	-2.3
1 mile	-82.8	5.2×10^{-12}	-4.8
1.5 mile	-86.3	2.3×10^{-12}	-8.3
2 mile	-88.9	1.3×10^{-12}	-10.9

From the table above, based on the noise generated at 30 MHz, we can see that the electromagnetic noise produced by the wind turbines falls below the median noise level for the United State's suburban areas at a separation distance of 0.57 miles. This is the distance at which the ratio to mean noise level becomes 0-dB or 1. From this, one may conclude that any receiver located beyond this separation distance would not be degraded by the noise generated by the wind turbines because the existing man-made noise level is greater than that emitted by the wind turbines.

The other degradation of concern is that the wind turbine facility may cause degradation by physical blockage to the amateur radio antenna system and prevent communications with long distance contacts. In the 10-meter band of operation and for communication distances of greater than 100 miles, transmission depends chiefly on sky waves reflected from the ionosphere. This is a region high above the earth's surface. The antenna system if operating properly will be directed toward the ionosphere at an angle high enough for effective transmission and receipt of signals. Even at an antenna elevation angle as low as 10-degrees, the tallest proposed wind turbine at 410-feet high would only have to be separated from the antenna by 2,360 feet (0.45 miles) to allow unblocked clearance to the ionosphere for the antenna. Typical 10-meter band antennas operating with contacts over 1000 km distant operate with propagation angles of 25-degrees or greater.³ For clearance to exist for a 10-meter band antenna at a 25-degree propagation angle, the separation distance to 410-foot wind turbines is 890 feet.

We understand from you that a property owner operates an amateur radio and is located approximately ¼ mile away from the nearest proposed wind turbine location. Based on our analysis and field measurements of an operating wind power project, we do not believe that the wind turbines will cause significant disturbance in excess of what is typical for suburban areas from either electromagnetic interference or as a physical obstruction.

³ Antenna Engineers Handbook, Jasik, 1961 Page 21-3

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JAN 20 2004

ENERGY FACILITY SITE
EVALUATION COUNCIL

January 20, 2004

Mr. Allen Fiskdal, Manager
Energy Facility Site Evaluation Council
PO Box 43172
Olympia, WA 98504-3172

Dear Mr. Fiskdal:

The attached spreadsheets provide additional information for the draft environmental impact statement that EFSEC prepared for the Kittitas Valley Wind Power Project proposed by Zilkha Renewable Energy related to the tax impacts. Some new tax revenue is generated but not as great as originally projected. Additionally, taxes are lowered for all taxpayers in the county.

The Project Tax Impacts spreadsheet supports the information presented on pages 3.7-20 and 3.7-21. It was prepared based on information obtained through the Kittitas County Assessor's office. The Economic Development Group of Kittitas County developed the spreadsheet. The figures presented here are very similar to those in the DEIS, however, the entire tax bill is not new tax revenue as stated in the DEIS. I-747 limited revenue in a district to a 1% increase per year but exempted new construction from this limitation. Therefore new construction revenue only produces new tax revenue. For this project only \$351,110 is new tax revenue, not \$1.3 million.

The last paragraph on page 3.7-21 noted that the added tax base could reduce other taxes. The calculations on the Project Tax Impacts spreadsheet show this to be a true statement. The construction of this \$200 million project would result in a new tax rate that is lower for all taxing districts. The sheet labeled example shows the savings expected in three Tax Code Areas. As you can see substantial savings occur in the Tax Code Areas where the project is located but savings do occur in other districts. Property taxes are lowered for everyone in the community.

Section 3.7.3 Impacts of No Action Alternative failed to adequately address the impacts of housing developments in the project area. If this project is not built, it seems unlikely that industrial or commercial development would occur in this area. Since some housing development has occurred in the area it would seem logical that future development would continue in this matter. A slight expansion of this action seems warranted.

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Organization Letter 6

Tourism and an informational kiosk were mentioned on page 3.7-19. Expanding the kiosk into an information center could further enhance tourism opportunities. It could also expand opportunities for educational field trips.

4

From an economic development perspective this is a good project for our community. The Economic Development Group of Kittitas County supports the project due to the economic benefits it brings to Kittitas County.

5

Sincerely,

Debbie Strand, CEcD
Executive Director

EXAMPLE

The following shows examples of savings in three districts if the Kittitas Valley Wind Power Project is built. Note that the project is located only in Tax Code Areas 12 and 34. As you can see, the rates are lowered most dramatically in the districts where the project is built, however, there is a savings across the board in the countywide taxing districts such as County Current Expense and State School.

\$100,000 House in Tax Code Area 12 - Thorp School District

District	Old levy Rate	Tax at old rate	New levy Rate	Tax at new rate	Savings
County CE	\$1.3406	\$134.06	\$1.2744	\$127.44	\$6.62
State School	\$2.8847	\$288.47	\$2.7412	\$274.12	\$14.35
Road #1	\$1.6310	\$163.10	\$1.5037	\$150.37	\$12.73
Hospital #1	\$0.0029	\$0.29	\$0.0027	\$0.27	\$0.02
Fire #1	\$0.8444	\$84.44	\$0.3978	\$39.78	\$44.66
School 400	\$2.7537	\$275.37	\$1.7153	\$171.53	\$103.84
Bonds					
Hospital #1	\$0.4420	\$44.20	\$0.3937	\$39.37	\$4.83
Fire #1	\$0.1934	\$19.34	\$0.0643	\$6.43	\$12.91
School 400	\$1.2113	\$121.13	\$0.6324	\$63.24	\$57.89
Totals	\$11.3040	\$1,130.40	\$8.7255	\$872.55	\$257.85

\$100,000 House in Tax Code Area 34 - Cle Elum/Roslyn School District

District	Old levy Rate	Tax at old rate	New levy Rate	Tax at new rate	Savings
County CE	\$1.3406	\$134.06	\$1.2744	\$127.44	\$6.62
State School	\$2.8847	\$288.47	\$2.7412	\$274.12	\$14.35
Road #1	\$1.6310	\$163.10	\$1.5037	\$150.37	\$12.73
Hospital #1	\$0.0029	\$0.29	\$0.0027	\$0.27	\$0.02
Fire #1	\$0.8444	\$84.44	\$0.3978	\$39.78	\$44.66
School 404	\$1.3946	\$139.46	\$1.2782	\$127.82	\$11.64
Bonds					
Hospital #1	\$0.4420	\$44.20	\$0.3937	\$39.37	\$4.83
Fire #1	\$0.1934	\$19.34	\$0.0643	\$6.43	\$12.91
School 404	\$0.8529	\$85.29	\$0.7545	\$75.45	\$9.84
Totals	\$9.5865	\$958.65	\$8.4105	\$841.05	\$117.60

\$100,000 House in Tax Code Area 18 -- Ellensburg School District

District	Old levy Rate	Tax at old rate	New levy Rate	Tax at new rate	Savings
County CE	\$1.3406	\$134.06	\$1.2744	\$127.44	\$6.62
State School	\$2.8847	\$288.47	\$2.7412	\$274.12	\$14.35
Hospital #1	\$0.0029	\$0.29	\$0.0027	\$0.27	\$0.02
Ellensburg	\$2.4368	\$243.68	\$2.4368	\$243.68	\$0.00
School 401	\$2.4368	\$243.68	\$2.4368	\$243.68	\$0.00
Bonds					
Hospital #1	\$0.4420	\$44.20	\$0.3937	\$39.37	\$4.83
School 401	\$1.6562	\$165.62	\$1.6562	\$165.62	\$0.00
Totals	\$11.2000	\$1,120.00	\$10.9418	\$1,094.18	\$25.82

Kitittas Valley Wind Power Project Tax Impacts

This spreadsheet developed with input from the Kitittas County Assessors Office. The figures are estimates based on the information available. Actual figures will be developed by the Assessors Office once the project is completed.

Estimated Project Value	\$200,000,000	Tax Code Area 12 (Thorp) 50%	2003 Revenue	2003 Rev +1%	New construction revenue	New tax limit	New rate		
Estimated tax bill	\$1,713,606	Tax Code Area 34 (Cle Elum) 50%							
District	Levy rate/1000	Assessed value	Project value in district	New assessed value	2003 Revenue	2003 Rev +1%	New construction revenue	New tax limit	New rate
County CE	\$1.3406	\$2,529,668,941	\$200,000,000	\$2,729,668,941	\$3,391,274	\$3,425,187	\$40,000,000	\$3,478,811	\$1.2744
State School	\$2.8847	\$2,510,795,792	\$200,000,000	\$2,710,795,792	\$7,242,893	\$7,315,322	\$40,000,000	\$7,430,710	\$2.7412
Road #1	\$1.6310	\$1,639,796,093	\$200,000,000	\$1,839,796,093	\$2,674,507	\$2,701,253	\$40,000,000	\$2,766,493	\$1.5037
Hospital #1	\$0.0029	\$1,649,685,591	\$200,000,000	\$1,849,685,591	\$4,784	\$4,832	\$40,000,000	\$4,948	\$0.0027
Fire #1	\$0.8444	\$100,622,512	\$200,000,000	\$300,622,512	\$84,966	\$85,815	\$40,000,000	\$116	\$0.3978
School 400 - Thorp	\$2.7537	\$109,243,539	\$100,000,000	\$209,243,539	\$300,824	\$303,832	\$20,000,000	\$358,906	\$1.7153
School 404 - Cle Elum	\$1.3946	\$766,552,052	\$100,000,000	\$866,552,052	\$1,069,033	\$1,079,724	\$20,000,000	\$1,107,616	\$1.2782
					\$14,768,281	\$14,915,964		\$351,110	
Bonds	Levy rate/1000	Assessed value	Yrly payment	New assessed value	New rate	Yrly payment			
Hospital #1	\$0.4420	\$1,632,096,771	\$721,386.77	\$1,832,096,771	\$0.3937	\$721,387			
Fire #1	\$0.1934	\$99,701,374	\$19,282.24	\$299,701,374	\$0.0643	\$19,282			
School 400 - Thorp	\$1.2113	\$109,243,539	\$132,326.70	\$209,243,539	\$0.6324	\$132,327			
School 404 - Cle Elum	\$0.8529	\$766,552,052	\$653,792.24	\$866,552,052	\$0.7545	\$653,792			

Estimated Taxes	Levy rate/1000	Project value in district	Taxes	Definitions
County CE	\$1.2744	\$200,000,000	\$254,888.85	Taxing district Figure from the Kitittas County Assessor's Report 2002
State School	\$2.7412	\$200,000,000	\$548,230.86	Valuation listed in the Kitittas County Assessor's Report 2002
Road #1	\$1.5037	\$200,000,000	\$300,739.03	Value of the project located in this particular taxing district
Hospital #1	\$0.0027	\$200,000,000	\$535.00	Assessed value plus the project value in district is the new assessed value
Fire #1	\$0.3978	\$200,000,000	\$79,562.44	Figure from the Kitittas County Assessor's Report 2002
School 400 - Thorp	\$1.7153	\$100,000,000	\$171,525.57	Due to 1-747 revenue in a district is limited to an increase of 1% per year
School 404 - Cle Elum	\$1.2782	\$100,000,000	\$127,818.73	Department of Revenue estimates that 20% of the project is real property
Hospital #1	\$0.3937	\$200,000,000	\$78,749.85	New construction is exempt from the 1% limit
Fire #1	\$0.0643	\$200,000,000	\$12,867.64	New construction figure multiplied by the levy rate
School 400 - Thorp	\$0.6324	\$100,000,000	\$63,240.52	Total of the 2003 revenue plus 1% and the new construction revenue
School 404 - Cle Elum	\$0.7545	\$100,000,000	\$75,447.54	New tax limit divided by new assessed value divided by 1,000 equals new rate
Total Taxes			\$1,713,606.04	Bond yearly payments do not change. As assessed values rise in a taxing district, the rates decline Assessed value plus the project value in district is the new assessed value Yearly payment divided by the new assessed value divided by 1,000



Pautzke Bait Company, Inc.

P.O. BOX 36 • P.O. BOX 429 • 800 PROSPECT STREET
ELLENSBURG, WA 98926

RECEIVED

1-06-04

JAN 08 2007

ENERGY FACILITY SITE
EVALUATION COUNCIL

Mr. Allen Fiksdal
PO Box 43172
Olympia, WA 98504

Dear Mr. Fiksdal

We are writing in favor of the Kittitas Valley Wind Power Project and urge you to grant the rezone as requested by Zilkha Renewable Energy for their proposed wind farm located on the ridges northwest of Ellensburg off Highway 97.

1

We purchased our tract of land off Highway 97 called Winchester Canyon in 1975. Almost thirty years ago we knew we were buying marginal land and wanted to keep it that way. We have kept our land free of houses. Our new neighbors, we suspect, were looking for cheap land to put homes on which they did and now their criticism is wind power will devalue their land?! Being one of the largest land owners in the area we are certainly concerned about property values and with our 60 years of experience with various types of real estate we think they will remain the same. We never complained when houses and mobile homes went up around us because we knew it was compatible with that area. We feel it is a give and take and the very vocal minority must accept things like we have.

2

We believe that the wind generators have always been exciting to look at and are pleasing to the eye. We have seen the Walla Walla, Washington generators and also toured the Palm Springs, California generator park and are fascinated by them all. Did anyone think that in the snowy months of December, January and February that the turbines will be camouflaged? Can you truly vote down a project by a vocal minority? Think about the environmental benefits regarding help with sustainable energy for clean air. Wind power produces no pollution and uses no water! There will be substantial economic development to this county and to the state. There will be visitor groups traveling through with their travel dollars. The environment impact is very small compared to residential developments. Certainly this is more compatible with open space land!

3

[509] 925-9365 • [509] 925-6154 • FAX NO. 1-509-962-5700

The Department of Natural Resources has leased their land to Zilkha and all income will go directly to Washington State Public Schools! Wouldn't you agree that is quite a charitable gift! The benefits of this wind farm project keep coming to the fore! So please consider the rights of all the land owners who are in favor of this project as the small group of opponents continues to drown out common sense.

4

Most sincerely,

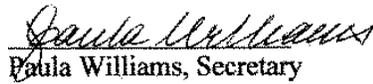
Pautzke Bait Co., Inc.



Gerry Williams, President



Casey Kelley, Vice President



Paula Williams, Secretary



Otto Keith Williams, Treasurer



Kittitas Audubon Society • P.O. Box 1443 • Ellensburg, WA 98926

Allen Fiksdal, Manager
Energy Facility Site Evaluation Council
P. O. Box 43172
Olympia, WA 98504-3172

RECEIVED

January, 20 2004

JAN 22 2004

ENERGY FACILITY SITE
EVALUATION COUNCIL

Dear Mr. Fiksdal:

Kittitas Audubon Society, a chapter of the National Audubon Society, is an organization of 150+ members spread throughout all of Kittitas County.

The mission of Kittitas Audubon Society is to develop an appreciation of nature through education and conservation, with a focus on birds.

Kittitas Audubon Society (KAS) supports renewable energy systems that are well planned and carefully installed.

The relatively sudden emergence of wind power as a significant source of energy finds the public and those responsible for siting wind farms with little objective research information about potential impacts on wildlife. Moreover federal and state protections for non-game wildlife are focused on endangered species. This provides little protection for the vast majority of avian species that is of concern to KAS in the proposed wind farm site.

1

Further, once a wind facility is installed, there appears to be no legal recourse to force changes to reduce mortality levels. Such is the situation at Altamont, CA where it is reported that as many as 50 Golden Eagles are reportedly killed annually without a single federal citation yet issued regarding what surely is a Take under provisions of the Bald and Golden Eagle Protection Act [16U.S.C. 668-668d]. KAS would like assurances through the DEIS that a similar situation will not occur in Kittitas County.

2

To this end, KAS is writing to express concerns about deficiencies in the DEIS for the Kittitas Valley Wind Power Project.

Summary Item 1.4 No Action Alternative

The second paragraph of this section should be stricken from the document. Speculation on meeting the energy needs of the region should the KVVWPP not be built is beyond the scope of this DEIS. At the very least, if this paragraph remains, a statement should be made that an energy conservation policy could eliminate the 'need' for the KVVWPP.

3

Kittitas Audubon Society

1 of 6

Summary Item 1.9 Cumulative Impacts (Item 1.9.2, page 1-15, Wildlife); 3.14.1 Cumulative Impacts (Page 3.14-1, 8, 9, 45).

The DEIS outlines the anticipated impacts on different categories of wildlife without specifying what actions will be taken to minimize these impacts. The DEIS has not presented a study of actual cumulative mortality rates where wind farms are 1.6 miles apart, there are only estimates.

4
5

The DEIS also fails to specify what action will be taken in the event a turbine proves to have an unacceptable impact on wildlife. Some corrective action should be taken – be it the temporary shut down or removal of the problematic turbine or specific counter measures to direct birds away from the turbine. What constitutes an unacceptable impact should also be specified.

6

Raptors

Raptor kill is anticipated to be 14 – 15 birds cumulatively over all three proposed wind farms. Raptors are known to soar along thermals created by ridgelines. All turbine installations should be installed on setbacks from ridgelines to minimize the likelihood of raptor impact. A setback such as this proved to be successful in reducing raptor collisions at the Foote Creek Rim Wind installation in Wyoming.

7

The DEIS specifies that habitat restoration will be to native plant species. Special emphasis should be made on restoration within the sweep zone of the each turbine. The restoration plan for the proposed KVVWP site must specify vegetation that avoids or minimizes attracting high densities of prey animals [rodents, rabbits, etc] to this zone.

8

No decommissioning protocols are specified should one turbine prove to have an unacceptable impact on raptors.

9

Bald Eagles

The DEIS specifies Bald Eagle cumulative fatalities are classified as small at perhaps 1 Bald Eagle every 2 – 3 years cumulative over all three proposed wind farms.

The Bald and Golden Eagle Protection Act [16U.S.C. 668-668d] makes unauthorized take of one Eagle a violation of the law. The USFW must authorize the Take level of Bald or Golden Eagles prior to issuing a permit. There is no mechanism for authorizing individual take 'after the fact'. The DEIS does not specify whether an Eagle take permit application has been filed.

10

Specific actions should be identified to minimize harm to eagles. Specific corrective actions should be identified to correct any turbine or turbine string responsible for killing eagles. A turbine-decommissioning plan should be specified if the Take is exceeded.

Passerines

All passerine kill projections are made without the benefit of night migration or inclement weather studies. Such studies should be required before approval of the DEIS.

11

Studies of migratory bird patterns are insufficient for duration of seasons and time of observation. It is not clear how the determination of low mortality was reached when no nighttime observation methods were used. 12

The 3 wind farms across the valley floor present the possibility of increased avian mortality. The DEIS has not presented a study of actual cumulative mortality rates where wind farms are 1.6 miles apart, there are only estimates. 13

No mention is made of whether a permit application for take under the Migratory Bird Act (16 USC 703-711) has been filed. 14

Bats

Wind turbines kill bats as well they dispatch birds. While there are fatalities associated with many of man's activities and structures, it would be unconscionable to add yet another one without a thorough study and understanding of a site's potential risk to this animal. 15

There is increasing concern about the emergence of bat kills associated with wind turbine installations. This concern has been heightened by release of information about bat mortality at a West Virginia 40-turbine wind farm installation where some 475-bat carcasses were recovered in a 7-month period from April 2003 to November 2003. When corrected for searcher efficiency and scavenger loss, the number could be several thousand. (*Windpower Monthly*, October 2003.) 16

The DEIS specifies that no nocturnal studies of wildlife, including bats, were performed and that bat kill rates were estimated based on other wind farm kill data. No analysis was made of how the nearby-forested areas may impact the kill of bats normally associated with the forest habitat. 17

The latest avian casualty report by WEST for the Stateline wind farm shows a total of 142 bat fatalities from July 2001 through October 2003. The WEST report states that the majority of casualties are most likely migratory species rather than resident, and sites the preponderance of silver-haired and hoary bats among the casualties. Silver-haired and hoary bats are forest dwellers and migrate from north to south. The KVVWP site lies immediately south of the beginning of a forested area that extends continually into the Wenatchee National Forest. Bat populations, including migratory, need to be assessed for the project site if we are to be even reasonably assured of no bad surprises. 18

The lack of night time wildlife assessments is a reflection of the newness of this emerging technology, the difficulty and cost of doing the necessary research, and the unfortunate fact that people don't know much or think much about bats and aren't sufficiently tuned into them to provide needed protection. Radar technology (such as BIRD RAD, other modified marine radar or acoustical methods) does exist for nighttime bat studies including migratory species, but instruments detecting echolocation won't work if migrating bats, as suspected they do, turn off this sensory apparatus during migration flight when they aren't hunting for food. 19

3.2.2 Affected Environment (page 3.2-13)

Historically the shrub-steppe environment that makes up the major habitat type on the KVVPP proposed site is considered to have little value. The historical 89.2% of the Columbia Basin Ecoregion occupied by this habitat type is now 32.1 % of the same region (O'Connor, G., Wieda, K., *Northwest Arid Lands, an Introduction to the Columbia Basin Shrub-Steppe*, Battelle Press, 2001, p.28). The DEIS references 1996 data which lists 55.7% of the Kittitas Valley shrub-steppe as intact though not pristine.

20

This reduction of habitat has left many isolated and fringe areas that are written off as having little value to the larger landscape. Several shrub-steppe obligate bird species were found to occupy this region during the breeding season suggesting that the fringe habitat is of value to them.

The most fragile of the shrub-steppe zones, the lithosols, generally occur near the top of the ridges and, therefore, will suffer destruction with the installation of the KVVPP. Little is known about the value of the lithosols, how they form or even their purpose in the greater scheme of things. This lack of knowledge also means that little is known about how to 're-grow' them. Since the lithosols often occupy the same ridgelines along which raptors soar the offset from the tops of ridges could also protect the lithosols. In addition, the plant communities in the lithosols tend to be the lowest growing of the shrub-steppe species. Raptors are prone to hunt in low growth areas where prey is the most visible.

21

The DEIS specifies the intent to restore native habitat in areas disturbed by construction of the KVVPP. Shrub-steppe vegetation is very slow growing and allows invasive species such as cheat grass to easily become dominant in disturbed areas (O'Connor, G., Wieda, K., *Northwest Arid Lands, an Introduction to the Columbia Basin Shrub-Steppe*, Battelle Press, 2001, p. 27). The DEIS should specify the long-term protocol using methods such as supplementary water to help establish these plant communities and exclude the invasive species.

22

Appendix A, Cumulative Impacts Analysis

From the beginning KAS has expressed reservations about the fixed-point survey protocol. The twenty-minute surveys performed by a single individual provide little opportunity for thorough counts. While watching/counting birds on one side of the circle any number of birds could be passing by behind the observer.

23

Quite a few members of KAS are experienced bird counters from annual participation in the Christmas Bird Count. Optimum group size for the count done in the Kittitas Valley is considered to be 3 persons, not all of which need be experienced birders. This allows for being aware of the full range of visibility and, therefore, a more complete count.

24

During the 20 December 2003 Christmas Bird Count (CBC) by KAS, 6 of the 11 Bald Eagles sighted were in northern portions of the count circle. This was during a foggy, cloudy, snow covered day for a period of approximately 7-hrs. Similar breakdown of

25

CBC data is available for the last 26 years from Dr. Phil Mattocks, Biology Department, Central Washington University.

25
cont.

On 8 January, 2004 Kittitas Audubon members reported four Bald Eagles (1 adult, 3 immature) feeding on a deer carcass on US Hwy 97 0.1 mile south of the SR 970 interchange. This is very near the proposed KVVWP and on the side away from the river where the DEIS claims the Bald Eagles roost. These birds were observed at this location for more than one day. It is unknown whether they roosted near the roadkill or returned to the normal riparian roosts and thus passed through the KVVWP proposed area multiple times.

26

KAS is concerned that wind energy facilities can adversely impact wildlife, especially birds and bats. As more facilities with larger turbines are built, the cumulative effects of this rapidly growing industry may initiate or contribute to the decline of some wildlife populations. The potential harm to these populations from an additional source of mortality or adverse habitat impacts makes careful evaluation of proposed facilities essential. Due to local differences in wildlife concentration and movement patterns, habitats, area topography, facility design, and weather, each proposed development site is unique and requires detailed, individual evaluation.

27

KAS urges that all possible and reasonable steps be taken based on scientifically competent wildlife studies to ensure that the site is safe for wildlife. And, should this 5000 plus acre industrial site be developed as proposed, that contracts once issued include provisions for subsequent wildlife monitoring. This is so that needed data about the effects of wind farms can be known to those of us who live here as well as to provide for an accessible nation-wide data base.

28

The DEIS notes a Technical Advisory Committee could be formed to evaluate the mitigation and monitoring programs and determine the need for further studies or mitigation. KAS encourages the creation of such a Committee and requests to participate as a member in such a committee.

29

Thank you for the opportunity to provide comments to the Dec. 2003 KVVWP DEIS.

Sincerely,



Keith Johnson
President
Kittitas Audubon Society