

Responses to Comments in Organization Letter 1 from Kittitas Citizens Alliance for Renewable Energy Solutions (C.A.R.E.S.)

Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the comment letter.

1. Thank you for your comment.
2. Thank you for your comment.
3. Thank you for your comment.
4. Thank you for your comment.
5. Thank you for your comment.
6. Your support for the project is noted.

Responses to Comments in Organization Letter 2 from Northwest Sustainable Energy for Economic Development (SEED)

Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the comment letter.

1. Thank you for your comment.
2. Thank you for your comment.

**Responses to Comments in Organization Letter 3 from Sonja Ling, Policy Associate,
Renewable Northwest Project**

Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the comment letter.

1. Thank you for the information provided in this comment.
2. The Applicant's consultant quantitatively assessed the approximate amount of lithosol habitat at the project site. At best, only a qualitative assessment of this habitat type could be conducted on a regional scale. Please refer to State Agency Letter 3, Response 6.
3. Please refer to State Agency Letter 3, Response 16 regarding the time frame for post-construction monitoring.
4. Please refer to State Agency Letter 3, Response 20 regarding the need to acquire additional lithosol habitat. This proposed measure is a recommendation that the Technical Advisory Committee (TAC) should be made aware of for consideration and future action. The recommendations of the TAC would be fully implemented.
5. Sections 2.2.3 and 3.2.4 of the Final EIS have been revised to clarify that the Federal Aviation Administration has jurisdictional authority over tower lighting requirements and the project must comply with its rules.
6. Thank you for your comment.
7. The extent to which residential subdivisions would adversely affect views in the project area would depend on the location, scale, and design of proposed development.
8. The benefits of wind power do not directly mitigate the visual impacts of wind power facilities except theoretically in cases where the viewer's notion of wind power benefits outweighs the negative changes in their visual experience.

Although there is visual impact mitigation to be gained from the wildlife habitat mitigation, the recommendation for conservation easements has been removed from Section 3.9.4 of the Final EIS because the Applicant may not be able to acquire easements to appreciably mitigate the biggest impacts. Furthermore, there is no practical means to gauge the potential effectiveness of this mitigation. There is also no known standard set by fossil fuel plants for visual impact mitigation. .

9. Based on a review of all the information presented on this topic, there is no reason to anticipate degradation of cell phone reception in the project area. There are no reported incidents of wind turbines interfering with cell phone reception. Therefore, there would be no obstruction to cell phone service, including the ability to contact emergency service providers in the area. The recommended mitigation measure for further study of cell phone interference has been deleted from Section 3.13.3 of the Final EIS.

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10. Thank you for your comment. Section 3.8 of the Draft EIS describes the cultural resource surveys undertaken by the Applicant's consultant Lithic Analysts. Further detail regarding the specific field methodology has been added to Section 3.8.2 of the Final EIS.
11. Please refer to State Agency Letter 3, Response 5 regarding a redefined No Action Alternative.

The EIS text referenced in this comment has been deleted. The socioeconomic impacts of new renewable or nonrenewable facilities would largely depend on the revenue generated, and the temporary and permanent direct and indirect employment generated.

**Responses to Comments in Organization Letter 4 from Travis W. Misfeldt,
Velikanje, Moore & Shore, P.S., Representing Residents Opposed to Kittitas Turbines**

Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the comment letter.

1. Thank you for your comment. Please refer to Responses 2 through 27 of this letter. Your opposition to the project is noted.
2. Chapter 80.50.040 RCW authorizes EFSEC to receive applications for energy facilities, to review their sufficiency, to conduct hearings on the proposed location of the facility, and to make a recommendation to the governor as to the disposition of that specific application. The Legislature has not authorized EFSEC to plan how sufficient energy is provided to the citizens of Washington State, nor to choose locations for energy facilities other than those proposed in a specific application.

As part of the application review conducted pursuant to Chapter 80.50.040 RCW, EFSEC considers how the specific application meets not only the policy and intent laid out by the Legislature in RCW 80.50.010 (including the elements you cited), but also the application's compliance with EFSEC's environmental criteria specific to the site.

3. Please refer to Local Agency Letter 2, Response 10 regarding revisions to the offsite alternatives analysis and to State Agency Letter 3, Response 5 regarding a redefined No Action Alternative.
4. The benefits and disadvantages of reserving project approval for a later date are addressed in Section 2.8 of the Draft EIS.
5. Please refer to Local Agency Letter 2, Response 10 regarding revisions to the offsite alternatives analysis. These revisions take into consideration construction of a wind farm in other Kittitas County locations.

EFSEC has limited its analysis to alternative sites within Kittitas County for several reasons. First, a local government appoints a member to EFSEC when there is an application pending in its jurisdiction (see RCW 80.50.030 [4]). That council member has no authority to consider local regulatory requirements in other counties and serves on the council only while the local project is under review.

Second, EFSEC is limited to considering compliance with local land use plans and zoning ordinances in the county where the project is proposed (Chapter 463-26 WAC), and if a request for preemption is filed only alternative locations that are within the same county can be considered (WAC 463-28-040 and 060).

Please refer to State Agency Letter 3, Response 5 regarding a redefined No Action Alternative. These revisions take into consideration that if the proposed project is not constructed, it is likely that the region's need for power would be addressed by a combination of energy efficiency and conservation measures on the user's end, existing

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power generation sources, or by the development of new renewable and nonrenewable generation sources. Baseload demand would likely be filled by expanding existing or developing new thermal generation sources, such as gas-fired combustion turbines.

6. Please refer to Local Agency Letter 2, Response 10 regarding revisions to the offsite alternatives analysis and to Response 5 of this letter.
7. Please refer to Key Issue A in Section 2 of this volume regarding the project definition.
8. Please refer to State Agency Letter 3, Response 5 regarding a redefined No Action Alternative.
9. Short-term fluctuations in energy output are a common characteristic of wind power. Because these fluctuations cannot be accurately predicted, utilities rely on sufficiently stocked operating reserves to maintain the integrity of the electric system (NWCC 1997). That is, some generating units are “on-line” and feeding electricity into the grid but are operating at less than their peak capacity. These can be sped up or slowed down to keep things in balance. Some generating units are often kept running and synchronized with the grid, but they are not actually putting electricity into the grid. This is done so that they can begin feeding electricity into the grid on a few minutes’ notice (Schleede, no date). However, the wind does not just start and stop. Typically, wind speeds increase gradually and taper off gradually, and the system operator has time to move other plants on- and off-line (start and stop them from generating) as needed. In fact, the fluctuations in wind plant output change more slowly than do the changes in customer demand that a utility must adjust to throughout the day (AWEA 2004b).

The KVVPP would not include any provision for conventional (fossil fuel) backup power. At times when the wind is insufficient for the turbines to operate, the project simply would not generate electricity. The utility purchasing the power from the project would integrate it into the utility’s overall supply. The utility would make the decision regarding additional power requirements including the source of additional power, if any.

It is anticipated that if required, there would be sufficient operating reserves to meet the backup power needs of the proposed wind project. Hydroelectric power resources would likely provide most of the backup power. The Pacific Northwest may be well suited to adding a large amount of wind generation because of the flexibility of the hydroelectric system in shaping available energy to meet firm demand. Hydroelectric dam output can easily be ramped up and down by releasing more water through turbines (Mulick 2004).

Bonneville and other utilities plan to package hydroelectric power resources and associated services with the variable wind energy to create a more reliable and load-matched product for sale to customers (Rand Science & Technology 2002). Bonneville publicly unveiled in mid-January 2004 two new wind power integration services: (1) a network wind integration service and (2) a storage and shaping service. For both services, Bonneville takes in wind energy, delivers it when it’s available, and provides hydroelectric backup when it is not (Adair and Ohrenschall 2004). Under most

conditions, Bonneville has a healthy surplus of short-term capacity that gives the agency an advantage in dealing with integrating wind. When wind generation differs substantially from its schedule in a way that dramatically exacerbates regulation requirements, Bonneville can rely on its hydroelectric units to remedy the imbalance (Linke et al. 2003).

10. Please refer to Responses 2 and 5 of this letter regarding proper definition of the proposal under review and the adequacy of the alternatives analysis. Please refer to State Agency Letter 3, Response 4 regarding project need and the ability of the project to meet future energy needs.
11. The Applicant has not selected an exact turbine model for the proposed project. The proposed 65 turbines evaluated in the Draft EIS are sited within defined corridors in the larger project area. The Draft EIS provides extensive documentation of expected impacts associated with siting these turbines under two project scenarios within the defined corridors and thorough, objective analysis of their significance. Key differences in the turbine characteristics addressed in the impact analysis are tip heights and rotor diameters. With the applicant's revisions to the project (late 2005/early 2006), a specific number of turbines has been selected. There is no need to specify the exact turbine model as long as the maximum conditions (as defined by the turbine characteristics) are identified and incorporated into the impact analysis. The level of documentation provided is sufficient for EFSEC to make a thoughtful, reasoned choice within the range of the two project scenarios. Please refer to Key Issue A in Section 2 of this volume for more information on the project definition.
12. Please refer to Response 11 of this letter.
13. Please refer to Response 11 of this letter.
14. Please refer to State Agency Letter 3, Response 6 regarding lithosol habitats. The microbiotic crust is an important component of native grasslands and shrub-steppe communities. Generally, this component is defined as organisms, including mosses, lichens, liverworts, algae and bacteria that stabilize the soil surface. Sensitivity of native grasslands and shrub-steppe systems to potential project impacts is closely related to their microbiotic crust. Minimizing and mitigating impacts on vegetation communities for this project have been considered in the project design. Washington Department of Fish and Wildlife has determined that the mitigation with oversight by the Technical Advisory Committee (TAC) is adequate.

The TAC will be responsible for monitoring, evaluating, and recommending additional studies and measures to address any problems. If monitoring demonstrates that mitigation is not adequate, the TAC will be responsible for recommending additional studies and measures to ensure the effectiveness and long-term success of this program.

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15. Please refer to State Agency Letter 2, Response 16 regarding updates to the bald eagle impact analysis.
16. Project noise would not result in adverse health effects. The proposed project would comply with Section 173-60 of the WAC, which provides the permissible noise levels in identified environments. The WAC was enacted with the intent to protect the general public's health and welfare; therefore, there is no reason to believe that project noise would result in adverse health effects. Furthermore, as stated in Section 3.4.4 of the Draft EIS, all project employees would comply with applicable environmental laws, ordinances, regulations, and standards designed to protect human health and safety, such as the Washington Industrial Safety and Health Act (RCW 49.17) and associated rules (WAC 296).
17. Thank you for your comment. Visual impact assessments are inherently subjective regardless of the methodology used because they depend on the judgment of the independent preparer. Your opposition to the project is noted.
18. Kittitas County categorizes wind farms as a utility use, not an industrial use. GPO 6.34, reproduced in the Draft EIS, states that wind farms "...need not be designated as Major Industrial Developments under Chapter 2.5 of the Comprehensive Plan." GPO 6.34 is part of Chapter 6 "Utilities" of the plan, and wind farms are not mentioned in Chapter 2, subsection 2.5, Major Industrial Development, clearly indicating that wind farms are considered a "utility" under the provisions of the Comprehensive Plan. Therefore the Major Industrial Development provisions of the Growth Management Act would not apply in this case.
19. GPO 6.34, reproduced in the Draft EIS, in combination with Kittitas County ordinance KCC 17.98, lay out a specific review process for wind farms, and therefore supersede the consideration required by GPO 8.2.
20. As stated in Responses 18 and 19 above, the Kittitas County Comprehensive Plan includes specific provisions for the location of wind farms (GPO 6.34). Chapter 6 of the Comprehensive Plan is aimed at ensuring that utilities are adequately supplied to existing and new users in the County, while minimizing costs to governments, and maximizing the use of existing rights of way. Chapter 6 does not include specific goals requiring that electricity produced in the County be only available for sale inside of the County.
21. Please refer to Local Agency Letter 2, Response 10 regarding revisions to the offsite alternatives analysis. Section 1.3 of the Final EIS has been revised to clearly describe the decisions to be made by EFSEC, including recommending to the Governor whether the state should preempt local land use plans and zoning ordinances. This decision will be made according to the requirements of EFSEC's statute (RCW 80.50) and regulations (WAC 463) in effect when the Application for Site certification was received. WAC 463-28-070 specifically requires the council to "give due consideration to the purposes of laws and ordinances, or rules or regulations promulgated thereunder that are preempted or superseded pursuant to RCW 80.50.110(2)".

22. Thank you for your comment. As explained in Response 21 above, EFSEC will be considering KVVPP's consistency with local land use plans and zoning ordinances. This decision will be made not only on the basis of the SEPA EIS, but also on the basis of the testimony presented to EFEC through the land-use and adjudicative hearings.
23. Please refer to Responses 24 and 25 of this letter.
24. The EIS consultants coordinated with Kittitas County to identify proposed development at the project site and in the project area at the time the Draft EIS was being prepared. It appears that shortly before the Draft EIS was finalized (in mid-November 2003, to allow sufficient time for printing) the County received an application from the Cascade Field and Stream Club (CFASC) for a conditional use permit to operate a firing range on its property. CFASC also has an agreement with the Applicant allowing for the placement of wind turbines on its property. The EIS consultants were not aware of this pending application with the County. Therefore, it was not addressed in the Draft EIS.

According to Kittitas County staff, the CFASC land use application for the proposed gun range off Hayward Road was on hold as of November 2004 pending receipt of additional information requested by the County for SEPA review. Under the terms of the Applicant's option agreement with the CFASC the proposed wind farm can be developed if it does not conflict with the safe development and operation of the gun range. The Applicant and CFASC will continue to coordinate regarding their respective plans of development to ensure compatibility.

The installation and final location of any wind turbines will be conditioned upon there being a suitable design and adequate safeguards in place to prevent injury to any wind power project personnel or any damage to the wind power project facilities. If the CFASC's plans, as approved by Kittitas County, would create safety hazards for KVVPP operations staff, or if the KVVPP would create safety hazards for CFASC's members and guests, the turbines proposed for the CFASC property would not be built.

25. A cumulative impact is the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Section 3.14 of the Draft EIS includes a comprehensive discussion of cumulative impacts attributable to wind power development in Kittitas County. Separation of the project's impact analysis into discussions of construction, operations, and decommissioning effects is meant for organizational purposes only and in no way mischaracterizes or underestimates the project's cumulative effects over its entire operational life.

If EFSEC recommends and the governor approves the project, the project decommissioning process would be governed by the terms and conditions set forth in the project's Site Certification Agreement (SCA). The SCA has all of the environmental, social, economic, and engineering conditions the Applicant must meet throughout the life of the project (including SEPA mitigation measures). EFSEC has the regulatory authority

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to enforce compliance with state laws and the conditions in the SCA through fines or by ceasing construction or operation of the project (WAC 463-70). Compliance determination procedures include consideration of onsite inspections, data analyses, and/or reporting activities as prescribed by EFSEC and performed by other state or local agencies pursuant to annual interagency agreements. EFSEC continues this oversight responsibility through restoration of the site after the project is terminated.

26. Please refer to Response 25 of this letter.
27. Thank you for your comment. Your opposition to the project is noted.

**Responses to Comments in Organization Letter 5 from Chris Taylor,
Project Development Manager, Zilkha Renewable Energy**

Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the comment letter.

1. Thank you for your comment.
2. The abstract presented in the Fact Sheet of the Final EIS has been revised to indicate that two scenarios are being considered: 330-foot turbines with an approximate nameplate capacity of 1.5 to 2 MW each, and a 410-foot turbine scenario with an approximate nameplate capacity of 3 MW each..
3. The referenced sentence in Section 1.4.2 of the Final EIS has been revised.
4. Section 1.5 of the Final EIS has been revised to indicate that prior to publication of the Draft EIS the Yakama Nation had been offered opportunities for meetings and site visits to discuss the project but declined to participate.
5. Section 1.7.2 of the Final EIS has been revised to indicate the differences in construction and operational employment under the two project scenarios.
6. Sections 1.7.2 and 3.7.2 of the Final EIS have been revised to reflect potential differences in property tax impacts between the two project scenarios. Updated economic data prepared by ECONorthwest in August 2006 has also been used in these sections.
7. Based on the new information presented as an attachment to the comment letter, Sections 1.7.6 and 3.13.2 of the Final EIS have been revised accordingly.
8. We believe the referenced statement is accurate, and therefore no change has been made to the Final EIS. Comparing quantitative project data and qualitative regional data does not allow for an assessment of the specific magnitude of the regional effect because the overall extent is not known. The Draft EIS qualitatively addressed impacts on lithosols on a regional scale. However, the information presented in this comment is helpful for defining the lithosol habitat context in the project vicinity. Also, see State Agency Letter 3, Response 6.
9. Sections 1.9.4 and 3.14 of the Final EIS have been revised to address your concerns regarding the significance of cumulative fire risks.
10. The Applicant's commitment to mitigate for the potential additional demand on law enforcement, fire protection, and emergency medical services is outlined in Section 3.13 of the Draft EIS. Section 1.9.13, referenced in this comment, is a summary of potential cumulative impacts that could arise from implementation of all three wind power projects proposed in Kittitas County.

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11. The referenced text in Table 1-3 of the Final EIS regarding landslide potential at the project site has been revised accordingly.
12. Please refer to State Agency Letter 3, Response 16 regarding the time frame for post-construction monitoring.
13. Please refer to State Agency Letter 3, Response 20 regarding the need to acquire additional lithosol habitat. This recommended measure has been removed from the Final EIS.
14. Table 1-3 and Section 3.4.2 of the Final EIS have been revised to remove statements regarding welding during tower erection.
15. The information in this comment is presented in Section 3.4 of the Draft EIS. Table 1-3 summarizes the potential impacts that are fully articulated in Section 3 of the Draft EIS; therefore, inclusion of this information in Section 1 is not warranted.
16. Table 1-3 and Section 3.4.3 of the Final EIS have been revised to specify that recommended safety setbacks would not apply to new private roads constructed by the Applicant specifically for the project.
17. While specifying an hourly exposure threshold for triggering mitigation measures is a reasonable idea, it is still dependent on the individual perceptions of those affected. Therefore, we do not consider it an appropriate mitigation measure.
18. The fact that approximately one-half of the Department of Natural Resources lands within the project area do not have legal public access is mentioned in Section 3.6.1 of the Draft EIS.
19. The Final EIS has been revised to redefine the No Action Alternative. Please refer to State Agency Letter 3, Response 5.

The text referenced in Table 1-3 of the Final EIS has been deleted. The socioeconomic impacts of new renewable or nonrenewable facilities would largely depend on the revenue generated and the temporary and permanent direct and indirect employment generated. Also, please refer to revisions to Section 3.7.2 of the Final EIS.

20. This recommended mitigation measure has been removed from Section 3.9 of the Final EIS because any trees would presumably have to be planted as small seedlings to survive an initial establishment period without irrigation. Small trees would require too many years to reach a size that would provide effective mitigation.
21. Based on better knowledge of current construction practices for wind turbines, i.e. that wind turbine foundations do not exceed ground level by more than two feet in height, this recommended mitigation measure has been removed in the Final EIS.

22. The recommended mitigation measure regarding revegetation around the base of the towers has been removed from Section 3.9 of the Final EIS.
23. The mitigation measure in Section 3.9 of the Final EIS has been removed. Based on better knowledge of current construction and design practices for wind turbines, we agree that transformers are not the prominent visual concern.
24. This recommended mitigation measure has been removed from Section 3.9 of the Final EIS because there is no practical means to gauge its potential effectiveness.
25. Table 1-3 summarizes information included in the Chapter 3 impact analyses. The intent of the cited sentence is to introduce the concept that construction equipment associated with projects of this nature could create an air navigation hazard. Table 1-3 of the Final EIS has been revised to include the following sentence in Section 3.10.2: “However, the FAA has reviewed and approved use of proposed construction equipment at the site and has issued a Determination of No Hazard to Air Navigation for the project.”
26. The warranting criteria for turn lanes are based on volume of turning traffic and safety. According to WSDOT, a few additional houses by themselves would not trigger this warrant, nor would they be required to contribute financially to the turn lane improvement (not unless the County would support a “latecomers” agreement). If a development is proposed (between now and the five-year period) that would contribute a large amount of turning traffic at Bettas Road, WSDOT would encourage the County to assess a proportionate share of the financial responsibility for the turn lane improvement. Otherwise, if the turn lane is warranted during the five-year period, and no other development has occurred, WSDOT expects the Applicant to fund the entire cost of the improvement (Holmstrom, pers. comm., 2004).
27. The statement that the project’s effect on global warming is unknown is technically correct. Table 1-3 summarizes information included in Chapter 3. Section 3.11.3 of the Draft EIS includes information confirming your claim that the life cycle impacts of wind power projects are positive in terms of total energy use. Section 3.11.3 states, “According to the American Wind Energy Association, several studies have found that even when the total fuel cycle of a wind power project is considered, CO₂ emissions are on the order of 1% of coal or 2% of natural gas per unit of electricity generated.”
28. Your comment is noted. The recommendation for temporary noise barriers has been removed from the Final EIS.
29. A satellite dish antenna is a line-of-sight device, which when aimed at a satellite can receive television signals. Assuming that the antenna is pointed at a satellite at 25 degrees, it would have to be more than 890 feet from the tower to ensure no signal interference.
30. Please refer to Response 7 of this letter.

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31. Please refer to Organization Letter 3, Response 9.
32. Please refer to Response 7 of this letter.
33. Figure 2-1 has been revised to show the new project layout presented in January 2006.
34. The reference for Figure 2-4 in the Final EIS has been revised to give credit to Vestas American Wind Technology.
35. Section 2.2.3 of the Final EIS has been revised to include this information on the width of access roads.
36. Section 2.2.5 of the Final EIS has been revised to clarify that project access gates will only be open while operations and maintenance staff are present on a particular access road.
37. The referenced sentence in Section 2.6.2 of the Draft EIS has been revised in Section 2.5.2 in the Final EIS.
38. Section 2.8 of the Final EIS has been revised to eliminate the reference to “controversial issues.”
39. The referenced text in Section 3.1.2 of the Final EIS regarding landslide potential at the project site has been revised consistent with your comment.
40. The referenced text in Section 3.1.2 of the Final EIS regarding construction-generated erosion has been revised accordingly.
41. Please refer to Response 8 of this letter.
42. Please refer to State Agency Letter 2, Response 11 regarding hunting at the project site.
43. Please refer to Response 12 of this letter.
44. The Final EIS has been revised to state those measures the Applicant has committed to in the Application for Site Certification, Section 3.4.7.10, i.e. controlling grazing practices on the site and controlling noxious weeds .
45. The last sentence of Section 3.4.1 of the Final EIS has been revised to include information on automobile activity on US 97.
46. Section 3.4.2 of the Final EIS has been revised to address the concerns raised in this comment.
47. Please refer to Response 17 of this letter.

48. The PacifiCorp request for proposals for renewable electric resources was issued after the Draft EIS was published and therefore was not included in the document. Section 3.5.1 of the Final EIS has been revised to indicate that PacifiCorp has issued a request for proposals for up to 1,100 MW of renewable resources, including wind.
49. Thank you for identifying this typographical error. The referenced sentence in Section 3.5.2 of the Final EIS, Other Nonrenewable Resources, has been revised.
50. In Section 3.6.3 of the Final EIS, the discussion of project consistency with the Swift Water Corridor Vision Plan has been revised to be consistent with the conclusions reached in Section 3.9 regarding visual impacts from State Route 10.
51. The fact that the Applicant has agreed to avoid ground-disturbing activity within 100 feet of all documented cultural resource sites has been added to the discussion of construction impacts and mitigation measures in Section 3.8 of the Final EIS.
52. Please refer to Response 51 of this letter. New information has been added to Section 3.8.4 of the Final EIS, Mitigation Measures Proposed by the Applicant, disclosing that 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 archaeological sites.
53. The referenced text expresses the opinion of some local landowners. It is not known to what extent nighttime lighting at the KVVPP site would result in sleep disruption, if it did at all.
54. Please refer to Response 20 of this letter.
55. Please refer to Responses 21 and 22 of this letter.
56. Please refer to Response 23 of this letter.
57. Please refer to Response 24 of this letter.
58. Section 3.9.5 of the Final EIS has been revised to define the term “significant” and to explain that much of the testimony and written comments received on the proposed project reflect a perception that the visual character of the Kittitas Valley will be greatly altered.
59. Thank you for your comment. Noise impacts on landowners would occur regardless of whether they have signed wind option agreements with the Applicant. However, for clarification purposes, a sentence has been added to Section 3.12.2 of the Final EIS stating that the wind option agreement this landowner (Genson) has with the Applicant contains a provision for generally accepting the impacts (including noise effects) of having turbines on his property.

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60. Section 3.12.2 of the Final EIS has been revised to include the revised noise modeling data for a 65-turbine project. This data confirms that under the loudest scenario (largest turbines of 410 feet high), the Environmental Designation for Noise Abatement (EDNA) Class A and Class C thresholds would be satisfied at all property lines..
61. There is no statement in the Draft EIS that “perceived adverse impacts” would require mitigation. Recommended mitigation measures focus only on compliance with applicable regulatory standards.
62. The SEPA regulations require that mitigation measures must be related to a specific adverse impact clearly identified in an environmental document (WAC 197-11-744). The Draft EIS acknowledges that residences (in general) located in the project vicinity could be exposed to moderate to high levels of construction noise. Therefore, the measures as presented in the Final EIS are reasonable and feasible for the proposed project.
63. The additional recommended text regarding television reception has been included in revisions to Section 3.13.2 of the Final EIS.
64. Please refer to Organization Letter 3, Response 9.
65. Please refer to Organization Letter 3, Response 9.
66. Please refer to Response 8 of this letter.
67. Please refer to Response 9 of this letter.

**Responses to Comments in Organization Letter 6 from Debbie Strand,
CEcD, Executive Director, Economic Development Group of Kittitas County**

Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the comment letter.

1. Washington State Initiative I-747, approved in 2001, limits a taxing authority's total property tax revenue increases to 1% per year. There are exemptions for new construction and excess levies approved by the voters. If the assessed value in a district increases dramatically, levy rates would likely have to be decreased in order to meet the requirements of I-747. It is anticipated that this would be the case with the addition of the project to the local property tax base because the project would represent an increase of much more than 1% in total assessed value for the local districts. Assuming the property tax levies were reduced, it would result in lower property taxes for other taxpayers in the County (EFSEC 2005a). Substitute Senate Bill 6141 (effective in June 2006) clarified that 100% of the project would be regarded as new construction (Strand 2006a, 2006b; Washington State Legislature 2006). The KVVWP would therefore be exempt from the limits established by Initiative I-747. Section 3.7.2 in the Final EIS has been revised include the most recent economic analysis prepared for the project by ECONorthwest.
2. Thank you for the information provided in this comment.
3. Consistent with the discussion of the No Action Alternative for other resource topics, Section 3.7.2 in the Final EIS has been revised to indicate that development by others and of a different nature could occur at the project site in accordance with the County's existing Comprehensive Plan and zoning regulations. Permitted land uses in the project area include ranching, resource management such as agricultural practices, and residential. Depending on the location, type, and magnitude of future development at the project site, socioeconomic impacts could be similar to the proposed action.
4. The potential for expanding the informational kiosk into an informational center could be considered by the Applicant in the future. If the project (as proposed) is approved by the Governor of Washington, a modification of the resulting Site Certification Agreement would be required. At that time the economic benefits additional tourism could bring to the County would be weighed against its potential adverse effects, primarily increased traffic.
5. Thank you for your comment. Your support for the project is noted.

Responses to Comments in Organization Letter 7 from Pautzke Bait Company, Inc.

Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the comment letter.

1. Thank you for your comment. Your support for the project is noted.
2. Thank you for your comment.
3. Thank you for your comment.
4. Thank you for your comment.

**Responses to Comments in Organization Letter 8 from Keith Johnson, President,
Kittitas Audubon Society**

Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the comment letter.

1. Thank you for your comment. Please refer to Responses 2 through 29 of this letter.
2. Please refer to State Agency Letter 2, Response 16 regarding the permitting process for an incidental “take” of bald eagle. The bald eagle is a federally threatened species, whereas the golden eagle is not federally listed but is a state species of concern. Golden eagles, while not protected under the incidental take permitting process associated with the Endangered Species Act (ESA), are still protected under the Bald Eagle Protection Act.

Extensive studies of operating wind power plants demonstrate that bird collisions will occur no matter where a project is located. However, the magnitude and severity of bird collisions, including the number and type of affected species, vary greatly from site to site.

A report prepared for Bonneville (WEST Inc. 2002) concluded that raptor mortality has been absent to very low at all newer wind generation plants studied in the U.S. This and other information, including dozens of studies spanning nearly two decades on wind turbine design and wind plant/wind turbine siting, strongly suggest that the level of raptor mortality observed at the Altamont Pass Wind Resource Area is unusual in the U.S.

Several factors influence raptor mortality at Altamont, including tower placement, a design that did not consider the local ecosystem, and the turbine and tower technologies in use at the time. The apparently high raptor mortality levels at Altamont can mostly be attributed to a high prey base for raptors, large populations of raptors, topography, and the large size of the wind plant.

For example, a very different situation exists not far away at the San Geronio Pass Wind Farms near Palm Springs, California. A 1986 study found that 69 million birds flew through San Geronio Pass during the spring and fall migrations. During both migrating seasons of that typical year, 38 dead birds were found, which represents 0.00006% of the migrating population (Sagrillo 2003).

Newer generation turbines are designed to provide little perching and no nesting structure (e.g., tubular towers, enclosed nacelle) and most wind plant developers are now required to carry out site evaluations at proposed wind plant sites prior to construction to determine impacts on birds and other wildlife.

More importantly, layouts of turbines at newer generation facilities are different than at the Altamont Pass Wind Resource Area. Turbines at the newer wind plants are typically

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spaced farther apart than turbines at older wind plants. Based on information to date, siting of wind plants appears to be the most important factor related to bird mortality.

The Applicant has undertaken extensive preconstruction wildlife studies at the KVVPP site, and the level and extent of bird and bat mortality found at the Altamont Pass Wind Resource Area is not anticipated.

3. Please refer to State Agency Letter 3, Response 5 regarding a redefined No Action Alternative.

Conservation will help reduce the amount of new generation that may be required in the future, but it is not predicted to replace the need for new generation. Energy conservation currently accounts for only 10.2% of the Northwest electricity supply (Northwest Power and Conservation Council 2003). Even if higher energy prices and new conservation programs accelerate the development of new conservation measures, they would not replace the need for additional generation.

4. Each of the wind power projects currently under evaluation in Kittitas County is required to undergo a thorough environmental review under the State Environmental Policy Act (SEPA). The site-specific evaluation of the KVVPP is the subject of this Final EIS. The Desert Claim Wind Power Project is evaluated in a separate Final EIS, issued by Kittitas County in August 2004. The Wild Horse Project was also evaluated in a separate Final EIS issued in May 2005, supplementing the August 2004 Draft EIS.

The cumulative effects of these three wind power projects on wildlife, including birds and bats, are summarized in Section 3.14 of the Draft EIS. The report entitled *Cumulative Impacts Analysis for Avian and Other Wildlife Resources from Proposed Wind Projects in Kittitas County, Washington* (WEST, Inc. 2003) is presented in Appendix A of the EIS. Proposed mitigation measures at the Desert Claim and Wild Horse project sites to minimize impacts on wildlife are included in Section 3.2.4 of the Final EIS.

Note that Section 3.14 of the Draft EIS concludes that, assuming risk of collision is proportional to use, one bald eagle fatality across all three projects may occur every two to three years. This conclusion has been revised in Section 3.14 of the Final EIS for clarification. Because no bald eagle mortality is expected at the Wild Horse site, the overall risk of one bald eagle fatality every two to three years would be expected to occur only at the KVVPP and Desert Claim project sites.

5. Cumulative avian mortality over the long term is difficult to predict and likely will vary depending on the population levels of individual species. No available data document cumulative mortality rates of wind farms located 1.6 miles apart.
6. Please refer to State Agency Letter 3, Response 13 regarding the Technical Advisory Committee (TAC) that will be established to evaluate the mitigation and monitoring program and to address the potential decommissioning or moving of turbines if wildlife mortality rates exceed EIS estimates.

7. Please refer to State Agency Letter 3, Response 18 regarding setbacks from ridgelines.

The recommendations for turbine siting are based on site-specific information collected at each project site. Turbines at the Foote Creek Rim Wind Project in Wyoming were moved back away from the rim's edge because baseline data detected a pattern of raptor use along the edge of the rim (Johnson et al. 2000a). However, topography, meteorological conditions, and avian use patterns at the Foote Creek Rim project are different than those at the KVVWPP site. The recommendation for setbacks from ridgelines is not merited for this project.

8. The specific type of seed mixes that will be used during site restoration, including within the sweep zone of each turbine, will be determined through further consultation with Washington Department of Fish and Wildlife and the TAC. Section 3.2.4 of the Final EIS has been revised to address these concerns.
9. Please refer to State Agency Letter 3, Response 13 regarding the TAC that will be established to evaluate the mitigation and monitoring program and make recommendations to EFSEC to address the potential decommissioning or moving of turbines if wildlife mortality rates exceed EIS estimates.
10. Please refer to Response 4 of this letter regarding an updated estimate of cumulative bald eagle mortality.

Please refer to State Agency Letter 2, Response 16 regarding the Bald Eagle Protection Act, the project Habitat Conservation Plan (HCP), ESA, and incidental take of eagles. The bald eagle is a federally threatened species, whereas the golden eagle is not federally listed but is a state species of concern. Golden eagles, while not protected under the incidental take permitting process associated with the ESA, are still protected under the Bald Eagle Protection Act.

Please refer to State Agency Letter 3, Response 13 regarding the TAC that will be established to evaluate the mitigation and monitoring program and to address the potential decommissioning or moving of turbines if wildlife mortality rates exceed EIS estimates.

11. Please refer to Tribal Letter 1, Response 4 regarding the adequacy of baseline wildlife surveys, including avian surveys.

Information available from studies of nocturnal bird migration indicates that risk to nocturnal migrants from wind energy development in the Pacific Northwest is low. Most nocturnal migrants fly at altitudes above the height of wind turbines with a blade extended straight up. For example, a radar study conducted at the Stateline and Vansycle wind projects found that the average height above ground for nocturnal migrants was 454.8 meters (1,492 feet) and 481.1 meters (1,578 feet), respectively, for spring migrants and 649.4 meters (2,131 feet) and 610.8 meters (2,004 feet) for fall migrants (Mabee and

Cooper 2002). In this study, more than 85% of migrants passing over the sites were higher than the height of the turbine (Mabee and Cooper 2002). Results of a similar study at the Nine Canyon Wind Project in Benton County, Washington, indicate that the mean flight height for spring migrants was 472 meters (1,549 feet), and that more than 85% of the migrants flew higher than the turbines (Mabee and Cooper 2001).

Post-construction monitoring studies at Stateline Wind Energy Center estimated that 45% of the avian fatalities found were migrants and that there were approximately 0.55 migrant fatalities per turbine per year (WEST and NWWC 2004). Post-construction monitoring studies at Nine Canyon estimated that approximately 17% of the avian fatalities found were migrants (Erickson et al. 2003).

Both the Nine Canyon and Stateline projects are within the Columbia Basin physiographic region, similar to the KVVWPP. The Stateline Wind Energy Center is adjacent to the west flank of the Blue Mountains and the Nine Canyon project is adjacent to the Columbia River, both of which could be considered major topographic features used by migrant birds. Based on this information, the risk to nocturnal migrants from wind power development in the region is considered low. There is no evidence to suggest that the KVVWPP would pose a higher risk to nocturnal migrants than either Stateline or Nine Canyon.

While there was no detailed analysis of the influence of weather patterns on bird use in the project area, the avian surveys were conducted approximately weekly for one full year, which takes into account varying weather patterns in different seasons. To a certain degree, the use estimates, therefore, take into account varying use based on different weather patterns. Winter fog is not considered a great risk to birds and bats because avian use tends to be lower in the winter and bats are not active in Washington in the winter (they hibernate or migrate south). In addition, during heavy fog wind speeds typically are greatly reduced and turbines are not turning. The risk of a bird colliding with a stationary turbine is not considered higher than the risk of a bird colliding with a powerline, power pole, fence, or house in the area.

12. Please refer to Tribal Letter 1, Response 4 regarding the adequacy of the baseline wildlife study. Please refer to Response 11 of this letter regarding nighttime wildlife surveys.
13. Please refer to Response 5 of this letter regarding the cumulative impact analysis.
14. The Migratory Bird Treaty Act (16 USC 703-712) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the Act has no provision for allowing an unauthorized take, it is recognized that some birds may be killed at structures such as wind turbine towers, communication towers, powerlines, houses, roads, or through common human activities such as agriculture, or oil, gas, and mineral development even if all reasonable measures to avoid it are taken. While the Act does not absolve individuals or companies of liability, the U.S. Fish and Wildlife Service (USFWS) Office of Law Enforcement and U.S. Department of Justice

have used enforcement and prosecutorial discretion in the past regarding individuals or companies who have made good faith efforts to avoid the take of migratory birds and who are conducting otherwise lawful and permitted activities. The extensive baseline (preconstruction) wildlife and habitat studies conducted for the proposed Kittitas Valley Wind Power Project and the proposed mitigation, as described in the Application for Site Certification and Draft EIS, are based on the best available science and are consistent with Washington Department of Fish and Wildlife guidelines. Collectively, these constitute a good faith effort to avoid the take or injury of migratory birds.

The USFWS can choose to enforce the Migratory Bird Treaty Act if a wind farm were responsible for the deaths or other adverse impacts on species protected by the Act. However, up to this point, while the USFWS has enforced actions against transmission lines and other facilities that have violated the Migratory Bird Treaty Act, no enforcement actions have been taken against wind farms (Shawano County 2003).

15. Please refer to State Agency Letter 3, Response 14 regarding the adequacy of the bat surveys.
16. In response to increased interest in the effects of wind turbines on bats and a fairly large bat fatality event in 2003 at a wind project in West Virginia referenced in this comment, a collaborative research effort on bat-wind turbine interactions has recently been launched. Participants include the USFWS, Bat Conservation International, U.S. Department of Energy, and the American Wind Energy Association (Energetics, Inc. 2004). Zilkha Renewable Energy has offered three years of financial support to this bat research effort to help identify strategies to avoid and mitigate impacts on bats. Please refer to State Agency Letter 3, Response 14 regarding the adequacy of the bat surveys.
17. Please refer to Response 11 of this letter regarding nighttime wildlife surveys and State Agency Letter 3, Response 14 regarding the adequacy of bat surveys.
18. Please refer to State Agency Letter 3, Response 14 the adequacy of the bat surveys.
19. Radar studies are effective in detecting broad front migration patterns, but they are unable to identify bats with any degree of precision. Radar studies cannot distinguish between species or even between birds and bats. As a result, there are uncertainties in interpreting the results of such studies. The Applicant is not aware of any examples where preconstruction bat studies resulted in project modifications that reduced bat mortality.

The other technology that has been used for evaluating bat use of a site is ultrasonic detectors (e.g., Anabat or Peterson brands) that can record bat calls. This involves making nocturnal recordings at a given location and having trained experts listen to the recordings to identify the number of bats recorded and species based on their calls. This type of study, however, does not provide any useful information on flight heights or use patterns. The detectors are only able to detect bats flying from 25 to 40 meters (82 to 131 feet) away, depending on species, so bats flying within much of the rotor swept area (i.e., areas with the highest probability for impact) cannot be detected. In addition, it is not

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known to what extent, if any, that migrating bats echolocate and could be detected by the detectors. Use of this technology, therefore, does little to inform impact predictions.

Please refer to Response 11 of this letter regarding nighttime wildlife surveys and State Agency Letter 3, Response 14 regarding the adequacy of the bat surveys.

20. Thank you for your comment.
21. Please refer to Response 7 of this letter regarding the need for setbacks from project ridgelines due to raptor activity.
22. As stated in Section 3.2 of the Draft EIS, the Applicant plans to develop a noxious weed control plan prior to construction and to implement the plan over the life of the project as mitigation. Although the specific protocols of this plan have yet to be developed, it is anticipated that a variety of techniques (e.g., chemical, mechanical) could be used that would likely be effective at reducing or eliminating noxious weeds from areas to be restored.
23. Please refer to Tribal Letter 1, Response 4 regarding the adequacy of the baseline wildlife study.
24. Please refer to Tribal Letter 1, Response 4 regarding the adequacy of the baseline wildlife study.
25. The Draft EIS acknowledges that bald eagles are frequently seen flying in the KVVPP and Desert Claim project areas north of Ellensburg during the winter and early spring. Please refer to Tribal Letter 1, Response 4 regarding the adequacy of the baseline wildlife study.
26. Please refer to Tribal Letter 1, Response 4 regarding the adequacy of the baseline wildlife study.
27. Please refer to Response 4 of this letter regarding the cumulative impact analysis.

Cumulative wildlife mortality over the long term is difficult to predict but is expected to be small. With respect to bald eagles, cumulative mortality likely will vary depending on the population levels of bald eagles near the three proposed wind power projects. Nevertheless, there is a possibility that an eagle flying through the project area would collide with or be hit by a moving turbine. Therefore, the Applicant is pursuing an incidental take permit from the USFWS under Section 10 of the ESA and will prepare an HCP for the bald eagle. Please refer to State Agency Letter 2, Response 16 regarding the project HCP, ESA, and incidental take of bald eagles.

28. The KVVPP design and proposed mitigation measures are consistent with and follow the recommendations and guidelines developed by the WDFW (2004d), as stated in WDFW's January 20, 2004, letter regarding the KVVPP (WDFW 2004). Please refer to

State Agency Letter 3, Response 13 regarding the TAC that will be established to evaluate the mitigation and monitoring program and State Agency Letter 3, Response 16 regarding clarification of the proposed post-construction monitoring period.

29. Please refer to State Agency Letter 3, Response 13 regarding the TAC that will be established to evaluate the mitigation and monitoring program.