GENERAL COMMENTS

Recommendation: Insert the following (examples of proposed language) in the executive summary and elsewhere (i.e., Chap 1, 2, 3.3.4, et al) in the document where a discussion of location-specific and project-specific coordination may be applicable:

1. As a programmatic evaluation, this draft PEIS does not evaluate site-specific issues associated with individual wind energy development projects. A variety of location-specific factors (e.g., soil type, watershed, habitat, vegetation, view shed, public sentiment, the presence of threatened and endangered species, the presence of cultural resources) will vary considerably from site to site, especially over an 11-state region. In addition, the variations in project size and design will greatly determine the magnitude of the impacts from given projects. The combined effects of these location-specific and project-specific factors cannot be fully anticipated or addressed in a programmatic analysis; such effects must be evaluated at the project level.

BLM generally encourages the development of wind energy in acceptable areas. Wind energy site testing and monitoring activities are typically developed in conformance with existing land use plans and in consultation, as may be required, with other Agencies such as the Departments of the Interior, Energy, Agriculture, Federal Aviation Administration, and Defense. 80070-1

Existing land use plans and coordination with responsible Agencies can identify a variety of land use activities within various types of designated land use areas, such as Areas of Critical Environmental Concern (ACEC), visual resource management areas, National Landscape Conservation System units, critical habitat areas, military Special Use Airspace (SUA) and test and training ranges, and other special management areas. These various land use areas may require or suggest location-specific and project-specific opportunities or restrictions to wind energy site testing, monitoring, and future development.

Rational: As BLM is aware; wind farms can impact our military operations. Consequently, providing language that suggests that location-specific and project specific coordination should take place will go far in furthering the intent of BLM's response to the National Energy Policy recommendations that the Departments of the Interior, Energy, Agriculture, and Defense work together to increase renewable energy production.

2. Impacts on military operations come from two perspectives: Obstruction & Radar Interference. We have provided some insight on these perspectives:

Obstruction: This appears to be fairly well understood by all and covered in the EIS. 400' tower versus 200' low-level can equal disaster. Radar Interference: Still appears to be fairly misunderstood. We recommend separating the radar equation into 3 pieces to make it easier for outsiders to understand: 80070-2

a. Ground-Based Radar. The radar on the ground (usually around an airfield) used for airfield operations (takeoff/landing etc). We agree that in most cases (assuming they are located away from radar sites) these should not impact the AF.

b. Aircraft Radar - Target Identification (finding the bad guy in the sky or on the ground). By increasing clutter (noise) with wind farms in an area, it makes identifying a target (air or ground) difficult, if not impossible, especially in a relatively quite (low noise) radar test area. This could be compared to attempting to view a picture on your TV screen when it is covered with "snow" - almost impossible.

c. Aircraft Radar - Terrain Following Radar (TFR). Radar bounces off the ground, constantly checking location & altitude etc. Much of our TFR testing is done over the exact same routes verifying each version of TFR software upgrades. We benchmark the last software results against the newest version to ensure it performs as expected. Any deviations can be attributed to a potential software glitch. However, any major changes to the terrain (such as the addition of a wind farm 400' tall x 1 mile square) would cause us to start the software testing verification process from scratch, on a route we may not have in our inventory. This inability to use previous baselines would have a drastic negative impact (increase) to cost & schedule for delivering weapons upgrades, etc. 80070-2 (cont.)

3. Please revise PEIS in light of what follows from the wind energy industry (AWEA) - see http://www.bwea.com/aviation/ams_report.html:

Will a wind project interfere with radar?

Yes. Radar is basically designed to filter out stationary objects and display moving ones, and moving wind turbine blades create radar echoes. It is possible to modify a radar installation to eliminate this problem, according to a consulting firm that has studied it for the British government. According to the study: "This study concludes that radars can be modified to ensure that air safety is maintained in the presence of wind turbine farms. Individual circumstances will dictate the degree and cost of modification required, some installations may require no change at all whilst others may require significant modification." 80070-3

If a wind project is proposed near an airport or military airfield, this issue will likely require further technical investigation. The interference is generally limited to objects (airplanes) that are physically shadowed by the turbines (that is, very low-flying aircraft), so the further the turbines are from an airfield and the lower their altitude, the less interference should occur.

Myths:

Myth #1: "Wind Turbines are now stealthy." This statement may actually be true, but just because the technology exists, does not mean it is being deployed. From our years of experience with the wind industry, they have

told us a different view. Composite (or stealth) turbine technology does exist, however it is too cost prohibitive to use on projects. As you know, wind projects are very competitive with other green technology and any increase in the total project cost could push it out of reach (financially). To our knowledge "stealth" turbines are not being installed.

Stealthy windmills would also cause TFR systems to either not react or delay their reaction when attempting to overfly the sites, causing potential aircraft to windmill collisions. 80070-3 (cont.)

Myth #2: Some think that we only fly at high altitudes these days. Not true - we still do a lot of low-level work (TFR work, etc). We must protect the low-level operations with the same vigor as the high altitude work.

4. Consider, to the extent practicable, the following broad issues:

- Identify sensitive locations on BLM lands where wind projects potentially affect DoD mission sustainability;
- Include the legal/regulatory basis for BLM disapproval of a wind project due to impacts (i.e., endangered species, ACEC conflicts, impacts to DoD mission sustainability).
- Include a DoD-provided overview of airspace and its use by the military, FAA items/inputs, general education points (we stand ready to expedite this with BLM, as required);
- Mention the availability of Area Planning AP/1B Chart, Military Training Routes- Western States, as one reference showing MTRs and FAA routes (available to the public - see Digital Aeronautical Flight Information File at https://164.214.2.62/products/digitalaero/index.cfm#plan), or its replacement;
- Include, as inherent in the wind energy planning and siting process, the pre-permit issuance coordination process by which BLM will coordinate with stakeholder/oversight agencies such as USF&WS, USDA, DoD, FAA, etc. 80070-4
- Require wind and other renewable energy source developers to minimally include conceptual information on energy transmission line routes on BLM lands;
- Address in the BLM's method of alerting stakeholders (including DoD) to proposed energy transmission line routes on BLM lands, that support wind and other renewable energy source developments on privately owned lands;
- Create a real time database summarizing the status of all wind facility applications/wind project development, transmission line projects on BLM lands, and make this accessible to the public. We recommend that this be established outside the application of NEPA and other consultations, etc;

- List the state-specific or regional energy workgroups, or similar, that BLM supports, and describe the influence that each has relative to wind projects on BLM lands. 80070-4 (cont.)

Military Installations are addressed in Section 4.7.3 as part of the Affected Environment, but the impacts analysis in Chapter 5, specifically Section 5.8.2, does not discuss actual potential impacts to AF pilots and their aircraft from aviation safety interference. However, it does an extensive job of addressing avian collisions. Section 5.10.3 raises the issue, but does not actually analyze any potential impacts. Rather it merely states on p. 5-88 that DoD "should be consulted regarding potential impacts on military operations." We recommend that "should be" needs to be changed to "will" or "shall", be consulted in the pre-permit application timeframe. 80070-5

5. General: The writing needs to be more accessible. Sentences are too long and written in such a way that the meaning changes. 80070-6

6. General: Need an up front explanation about why there was an interim policy and what it is. It reads like segmentation of the action. 80070-7

7. General: The necessity of the Programmatic EIS is not immediately obvious and should be so. It appears that the main advantage over preparing only action-by-action NEPA documents is a comprehensive change of land use plans. 80070-8

SPECIFIC COMMENTS

Table of Contents

Following the listing for Par 4.7 (AFFECTED ENVIRONMENT) “Land Use”, add a new Par 4.8 “Airspace Use/ Airspace Resources”. Transfer existing Par. 4.7.2 (Aviation Considerations) and 4.7.3 (Military Installations) so that they fall under this new Par 4.8, and renumber paragraphs as appropriate. This elevates “Airspace Use/ Airspace Resources” to a proper level of importance relative to other “Affected Environment”.

Following the listing for Par 5.10 (POTENTIAL IMPACTS OF WIND ENERGY DEVELOPMENT AND ANALYSIS OF MITIGATION MEASURES) “Land Use”, add a new Par 5.11 “Airspace Use/ Airspace Resources”. Transfer existing Par. 5.10.2 (Potential Impacts to Aviation) and 5.10.3 (Potential Impacts to Military Installations) so that they fall under this new Par 5.11, and renumber paragraphs as appropriate. This elevates “Airspace Use/ Airspace Resources” to a proper level of importance relative to other “Affected Environment”. 80070-9

Under Par 3.6 “Existing Mitigation Guidance”, add a new Par 3.6.3 entitled “Military Mitigation Guidance Relevant to Wind Power Development”. Within the added paragraph, state that military policy/ guidance for coordinating siting of wind facilities with military use of public lands, and airspace above, will typically be done in the pre-permit application time frame. Provide military POC and contact information, and recommend that wind developers engage in pre-permit consultation with military.

Executive Summary

ES. 4 and ES 5.3 - We recommend combining *the Limited wind energy development* alternative with the no action alternative while at the same time removing any language regarding "limited development" or a complete removal of the text under the limited alternative. This would leave the EIS with only the proposed action and the no action. As currently scoped, the limited energy alternative would not appear to further the goals of the National Energy Policy, and since the actions defined under this alternative already exist or will be in existence by the time the PEIS is completed, the alternative will have already been overcome by events. 80070-10

ES.5 - State that there can be "potential adverse impacts to airspace use/ airspace resources", in addition to other impacts listed. This item was not listed. 80070-11

ES.5 - Executive Summary does not comment on the affects windmills would have on military and civil aviation. This is an important issue that should be highlighed in the Executive Summary. 80070-12

ES-5, paragraph 3: There is no way to ensure that impacts that are not assessed at the site-specific level will be minimal to negligible. Consider rewording. 80070-13

ES-5, paragraph 3: The requirement that site-specific and species-specific concerns be addressed comprehensively at the project level is redundant to NEPA. This would have been performed with or without a Programmatic EIS. 80070-14

ES-5, last paragraph: Ensure is equivalent to guarantee". Recommend against using the word in a NEPA document, since it is a legal document. 80070-15

ES-6 - The conclusion that the proposed action is the *best approach* for managing wind energy development is questionable, based on the lack of specificity of the PEIS. 80070-16

ES-6, paragraph 2: It may read to the general public that it is convenient that BLM didn't calculate impacts to residential property values but suggests that the impacts will not be negative. Consider wording these statements more strongly, such as indicating that this PEIS did not calculate those impacts because other studies overwhelmingly suggest the impacts will not be negative. 80070-17

ES-6, paragraph 4: Is the comprehensive guidance regarding mitigation anything different than would have been expected on a project by project basis? If not, recommend that this point not be oversold. 80070-18

ES-7, paragraph 6: "Lowest potential cost to industry" sentence begs the question if it is the lowest cost to the Federal government (i.e. taxpayers). 80070-19

Chapter 1

1.1 Purpose and Need: Recommend rewrite: "To support wind energy development on public lands and also to minimize potential environmental and sociocultural impacts, the BLM is seeking to build on the existing interim policy to establish a Wind Energy Development Program. Anticipated elements of the 80070-20

BLM's proposed Wind Energy Development Program include (1) an assessment of wind energy development potential on BLM-administered lands through 2025 (a 20-year period); (2) policies regarding the processing of wind energy development ROW grant applications; (3) timely consultation with other oversight, regulatory, or stakeholder Agencies on proposed permit applications; (4) best management practices (BMPs) for mitigating the potential impacts of wind energy development on BLM-administered lands; and (5) proposed amendments of specific land use plans to address wind energy development.	80070-20 (cont.)
1.3 - Relationship Of The Proposed Action to Other BLM Programs, Policies, And Plans - It would be useful to provide a similar section as follows, "…1.4 RELATIONSHIP OF THE PROPOSED ACTION TO OTHER AGENCY PROGRAMS, POLICIES, AND PLANS" with sub-headings that discuss DoD, USDA, F&WS, etc.	80070-21
Chapter 2	
2.2 Description Of The Proposed Action: Recommend inserting as another benefit, the following: Interagency/Intergovernmental Reviews. The BLM shall encourage pre-application reviews to facilitate identification of potential conflicts among the various responsible agencies and related stakeholders, for all applications.	80070-22
2.2.1: Third sub-paragraph. Recommend deleting from consideration under the MPDS model withdrawn public lands. (such as the lands covered in PL 106-65)	80070-23
2.2.1: Sixth sub- paragraph - clarify. This paragraph states the WinDS model output indicates how many total acres might be economically developable and in the next sentence states the model does not show where the land is located. How do you calculate total acres developable yet not know where they are?	80070-24
2.2.3.1 Proposed BLM Policies - Add an additional bullet stating that "The BLM will initiate pre-permit issuance consultation with appropriate military representatives when a proposed wind facility or transmission lines may have potential to interface/encroach upon with military airspace and/or miliitary test and training ranges.	80070-25
2.2.3.1: 5th bullet requires entities seeking to develop a wind energy project to consult with the DoD and shall occur simultaneously at both the installation/field level and the Pentagon/BLM Washington Office level. Need to state the reason for coordination is to obtain DoD concurrence the proposed project would have no impact to the military's mission. Should also specify the type information that should be coordinated. DoD or local installations do not have the authority to approve or disapprove a project. The only guidance DoD or an installation may provide is the proposed action may have a serious impact, negligable/minor impact or no impact, etc.	80070-26
2.2.3.1: 8th bullet states the existing Categorical Exclusion applicable to short term ROWs or land use authorizations may be applicable to some site monitoring and testing activities. DoD requests that any request for meteorlogical or other test sites be coordinated with DoD to appropriately assess potential impacts to	80070-27

military operations. Recommend full coordination as outlined in fifth bullet (gain DoD input on potential impact). 80070-27 (cont.)

2.2.3.2.2 Plan of Development Preparation - General: Insert new bullet item:

The BLM and commercial operators should contact DoD airspace and range managers in the pre-application planning process to identify potential encroachment, sensitive land uses and issues, land use concerns specific to the region, and the potential for electro-magnetic effects. 80070-28

2.2.3.2.2 Proposed BMPs/Plan of Development Preparation- To be complete, add a paragraph listing "Airspace Use/ Airspace Resources", and state Plan of Development BMPs for coordination of wind project with military, along with other listed resource BMPs (can assist BLM on this item by providing POCs, and coordination policy for wind projects). 80070-29

2.2.3.2.2, "Plan of Development Preparation" - Specifically requires that both the Department of Defense and individual military services be notified of each project early in the development process to allow for identification of possible military impacts. 80070-30

2.2.3.2.2: 1 bullet - how is appropriate agencies defined? Does it include DoD? Suggest changing the word "should" to "shall". It is imperative any future meteorlogical tower or windmills be evaluated to determine potential impacts to military operations. BLM should request DoD provide an appropriate agency POC/Phone etc where they can submit any proposal for evaluation. DoD should also establish guidance on response times and who is the appropriate office to coordinate with BLM. 80070-31

2.2.3.2.3 - Human Health and Safety paragraphs, 7th bullet. Recommend developer be required to coordinate and gain comments from affected airports, military etc. as a requirement for the POD approval. 80070-32

2.2.3.2.4 - 8th bullet states "additional warning information may also need to be conveyed to aircraft with onboard radar systems so that echoes from wind turbines can be quickly recognized." This statement appears to gloss over a serious problem and simply stating additional warning information may need to be conveyed to aircraft is weak at best. How would pilots, both military and civilian, be notified of radar of echoes or EMI from wind turbines? It may be much more appropriate to restrict the construction of wind turbines in areas where the turbines would interfere with the safe flying operations. 80070-33

2.2.3.2.5, "Decommissioning" - Site revegetation should use the same species and plant communities as present prior to the project rather than simply "commensurate with the ecological setting" unless it can be clearly determined through consultation with potentially affected facilities that the original vegetation had not been cultivated and/or managed for certain physical properties. For example, it would be inappropriate to plant a woody species of tallest growth potential near an airport/airfield or below airspace set aside for military use if that species had not been present prior to site wind energy development. 80070-34

2.6.4 - Should the BLM be concerning themselves with the cost of wind energy development in this document? In particular what is the BLM's interest in low cost to industry? 80070-35

2-22 - the Transportation section talks about truck traffic hazards, but not about air traffic (pgs 2-13). This raises the question of air traffic hazards, which are not discussed. Perhaps the title should be changed to Ground Transportation, or expand to include air traffic. 80070-36

2-23 - under Public Health and Safety (pgs 2-17, 2-23), the discussion only addresses proximity to military bases and training areas, but does not specifically address airspace, MTRs, MOAs or pilot safety. 80070-37

Chapter 3

3.1 - Description Of Wind Energy Projects, 2nd line- Include "pre-permit consultation" (with BLM, military, tribal governments etc.) as a project phase, and list this before "site testing and monitoring. 80070-38

3.1.2.4 - Why are dielectric-fluid containing electrical devices only "likely" to use mineral oil based dielectric fluids (as opposed to PCB), can not the BLM require that on its lands? 80070-39

3.1.1 - Second sub-paragraph mentions 50m meteorological towers. In a recent meeting in Reno with BLM, DoD and State personnel, it was mentioned that we could expect to see met towers exceeding 50 meters in the near future. Recommend addressing the taller towers envisioned by industry for met towers. 80070-40

3.2- Regulatory Requirements For Wind Energy Projects, Pg 3-13- Below "Land Use" bullet, add a bullet entitled "Airspace Use/ Airspace Resources" and refer to applicable regulations. 80070-41

3.3.4 - States "This study concludes that radars can be modified to ensure that air safety is maintained in the presence of wind turbine farms". While this may be a suitable repair for a stationary type (approach control type) radar system for both military and civlilian airfield, we do not want to introduce "filters" into a Test and Evaluation phase of systems. Inplacing multiple filters into the systems we use to train and provide feed back to the aircrews could introduce multiplicity of errors that invaildate the training (In a sense provide false training). Filters are not a solution in or near a test and evaluation or high density training area. 80070-42

3.3.4 - How tall are the turbines? The FAA will need a "Determination of Hazard to Air Navigation" for any structure over 500 feet. 80070-43

3.3.4 - The Air Force is concerned with the potential for wind turbines to interfere with the electromagnetic signals that are part of communications and radar. 80070-44

3.3.6 The Air Force is concerned with anything that could be a hazard to aviation. Does shadow flicker pose a threat to aviation in the vicinity of the wind farms? 80070-45

Chapter 4

4.7.3 - Military Installations: Recommended Edits - Navigation concerns also exist where tall structures are located within military airspace, referred to as 80070-46

military operations areas (MOAs), or military training routes (MTRs) or next to military test and training ranges. A MOA is airspace designated for military training activities, including aerobatics, air combat tactics, formation training, and other activities. An MTR is made up of a series of linked segments of airspace within which various training activities are conducted. Although not required to, military aircraft typically fly an MTR along a defined centerline that governs the plane's height and course. The floor and ceiling for both MOA and MTR airspace are defined and, in either type of space, the floor may extend all the way down to the earth's surface. Military ranges consist of both ground and airspace assets used for composite force training, tactics development, and testing. As a potential result of wind energy development, wind turbines can intrude upon these airspace and ranges if not located properly. The DoD must be contacted during pre-application planning and before permit issuances for any proposed testing, construction, or alteration of objects that may affect military airspace or ranges. 80070-46 (cont.)

4.7.3 Military Installations - 8th line- Modify sentence to read "As a result, wind turbines can intrude upon these airspaces if not properly located, and thus incompatibility with military mission can be a basis for permit denial, should there be no available mitigation alternatives." 80070-47

4.7.3 - This paragraph while titled "Military Installations" only speaks to physical obstruction impact to Military Installation. Recommend adding discussion on radar interference to Military Installations (airspace/operations). The impact to the military mission also comes from radar signals outside the boarder of the airspace. 80070-48

Windmills do not have to be in the direct flight path of the aircraft or antenna to be a source of interference.

Figure 4.7.3-1 - shows the locations of MOAs and MTRs in the western United States. Table 4.7.3-1 summarizes the number of U.S. military installations located within the 11 western states, recommend double check/validation. 80070-49

Chapter 5

5 - "Potential Impacts": Discuss the potential impacts of EMF/EMI on military radar rather than just commercial radar. 80070-50

The developer should be required to post some form of surety to ensure that funding is available to adequately accomplish site decommissioning. The amount could be based on the size of the project, perhaps by total acreage using a unit cost per acre developed. 80070-51

5.5.3.1 - Wind Turbine Noise, 1st sentence- States that "Wind turbines produce two categories of noise: mechanical and aerodynamic". Reverify whether "EMI" is adequately addressed under noise paragraph. 80070-52

5.8.2 - 5th bullet - again states warning information may also need to be conveyed to aircraft with onboard radar systems so that echoes can be quickly recognized. Has the FAA developed any guidance or procedures in respect to windmills? 80070-53

5.8.2 - 6th bullet - This does not seem to be a "mitigation" but more a directive. This should be an up-front requirement to coordinate in the planning/design phase with local affected concerns i.e. local airports, and military installations (to inlcude airspace). Make this a requirement in writing for the developed to obtain coordination in writing. See previous comment re: pre-permit issaucne coordniation. 80070-54

5.10.3 - Recommend adding word "Testing" in paragraph as it speaks to "training". We do both testing and training, each with special requirements. But in some locations both need an electronic interference free environment. Additional windmills/met towers do introduce electronic polution into the airspace. 80070-55

5.10.3 - Potential Impacts to Military Installations - Add following sentences at bottom "The aforementioned constraints to military training operations may be the basis of a permit denial. Developers are encouraged to conduct pre-permit consultation with BLM and appropriate military representatives", or similar discussion. 80070-56

5.10.5 Mitigation Measures - 3rd bullet states "The DoD should be consulted regarding the potential impact of a proposed wind energy project on military operations in order to identify and address any DoD concerns;" Recommend two clarification points:

- BLM shall be acknowledged as the primary source for coordinating potential wind farm projects (on public lands) with DoD. 80070-57
- Individuals shall submit their requests to BLM and then BLM shall coordinate with all the appropriate and affected agencies to determine if there are any impacts.

5.10.5 and 4.7.2 - Recommend BLM require the highest point of the structure (i.e. tip of the blade) be considered in all applications and insist to FAA that the blade tips be lighted and counted in all applications, not just the fixed portion of the tower. Lighting should be requried for all towers over 100ft AGL. 80070-58

Chapter 6

6.4.1.4 - Land Use, 7th line- Include "military activity" among activities with which wind energy development must be compatible. 80070-59

Chapter 7

7.4 - Agency Consultation and Coordination - Recommend additional paragraph: "For actions potentially impacting on military airspace and/or ranges, specific DoD airspace and or range managers will be contacted on a case by case basis during pre-application planning and before permit issuances for any proposed testing, construction, or alteration of objects that may affect military airspace or ranges." (Note: DoD may be able to provide a specific list of potential POCs for various ranges/airspace). 80070-60

Responses for Document 80070

80070-001: As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses will be conducted for any proposed project on BLM-administered lands. The scope and approach for site-specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. The 5th bullet in Section 2.2.3.1, Proposed Policies, requires consultation with DoD. Site-specific analyses are beyond the scope of the PEIS. No text change has been made to the document in response to your comment.

80070-002: Discussion on radar interference has been added to Sections 4.7.3 and 5.10.3.

80070-003: Information on radar interference has been added to Sections 4.7.3 and 5.10.3 in response to a previous comment. The scope and approach that could be required to minimize or eliminate potential radar interference would be determined on a project-by-project basis with input from the FAA and DoD.

80070-004: Regarding bullets 1, 2, and 6: As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses will be conducted for any proposed project on BLM-administered lands. The scope and approach for site-specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this process, the BLM will develop project-specific stipulations for incorporation into the POD. Site-specific analyses are beyond the scope of the PEIS.

Regarding bullets 3 and 4: The BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM- administered land. The agreement will establish a process and identify the scope of potential issues for consultation. The BLM will seek consultation with the DoD on all wind energy development projects.

Regarding bullets 5, 7, and 8: The coordination process is already required under the Wind Energy Development Program proposed policies and BMPs (Section 2.2.3.1, Proposed Policies, and Section 2.2.3.2, Proposed BMPs).

Regarding bullet 9: Information about state and regional energy work groups is available through other sources and has not been added to the PEIS.

80070-005: The Wind Energy Development Program proposed policies and BMPs, as listed in the Final PEIS, have been reworded to make them required elements of any wind energy development activity on BLM-administered land.

80070-006: Thank you for your comment.

80070-007: As stated in Chapter 1, the National Energy Policy recommended that the BLM and other federal departments work together to increase renewable energy production. In response to that recommendation, the BLM has undertaken efforts to evaluate wind energy potential on public lands and has issued an Interim Wind Energy Development Policy (see Appendix A) that establishes requirements for processing applications for wind energy site testing and monitoring and commercial wind energy development projects. No text change has been made to the document in response to your request.

80070-008: As stated in Chapter 1, Purpose and Need, the objectives of the PEIS are to (1) assess the environmental, social, and economic impacts associated with wind energy development on BLM-administered land, and (2) evaluate a number of alternatives to address the question of whether the proposed action presents the best management approach that the BLM can adopt in terms of mitigating potential impacts and facilitating wind energy development. The amendment of land use plans is one of four anticipated elements of the proposed action, development of the Wind Energy Development Program.

80070-009: "Land Use" is a long-recognized section in NEPA documents that includes activities such as commercial forestry; recreation; residential, commercial, and industrial developments; agriculture and grazing; mining; and military use. Generally, these activities are not elevated to a distinct stand-alone section.

Section 3.6 discusses comprehensive guidance that has been developed specifically for wind energy projects. As yet, the DoD has not prepared such guidance. Nevertheless, Section 5.10.5 provides a requirement for consultation with DoD. This consultation, to be conducted on a project-by-project basis, would address the concerns expressed in the comment. No text change has been made to the document in response to your comment.

80070-010: Thank you for your comment. No text change has been made to the document in response to your comment.

80070-011: Thank you for your comment. No text change has been made to the document in response to your comment.

80070-012: Thank you for your comment. No text change has been made to the document in response to your comment.

80070-013: As stated in paragraph 2, the proposed program will require that issues and concerns be identified and addressed in project-specific plans, programs, and stipulations, and that mitigation measures protecting resources be incorporated into project PODs. The statement in paragraph 3 concludes appropriately that the requirements to address all the issues and concerns thoroughly at the site-specific level will ensure that impacts will be minimal to negligible. No text change has been made to the document in response to your comment.

80070-014: The explicit requirements to conduct site-specific and species-specific analyses at the project level have been included in the proposed program specifically to provide assurance to interested stakeholders that wind energy development on BLM-administered lands will be thoroughly evaluated with full public involvement.

80070-015: The term ensure is also defined as "to make sure" or "insure." The sentence under consideration appropriately states that adoption of adaptive management strategies would "further ensure that potential environmental impacts would be kept to a minimum." The concept that adaptive management helps insure or make sure that impacts will be kept to a minimum is valid. No text change has been made to the document in response to your comment.

80070-016: Thank you for your comment.

80070-017: Thank you for your comment. No text change has been made to the document in response to your comment.

80070-018: By providing a comprehensive program, the BLM can ensure that wind energy development on BLM- administered lands is managed consistently across the many Field Offices that may be involved. By establishing minimum mitigation standards, the BLM is ensuring that potential adverse impacts will be minimized to the greatest extent possible. In addition, the proposed program will provide for the amendment of 52 land use plans to address wind energy development and for future tiering of project-specific NEPA analyses. The potential benefits of these outcomes, in terms of improved environmental management and likely time and cost savings, are significant.

80070-019: As stated in Chapter 1, the National Energy Policy recommends that the Department of the Interior work with other federal agencies to increase renewable energy production on public lands. If the BLM's Wind Energy Development Program establishes requirements that render wind energy development on BLM-administered lands uneconomic, the National Energy Policy recommendation will not be accomplished. The BLM's program ensures that potential adverse impacts will be minimized to the greatest extent possible while simultaneously increasing the amount of wind energy development on BLM-administered lands over the next 20 years. The Wind Energy Development Program also will result in cost savings for the federal government (i.e., the BLM) by establishing standard policies and BMPs, providing programmatic analyses to support tiering of future NEPA analyses, and amending multiple land use plans simultaneously.

80070-020: The Wind Energy Development Program proposed policies and BMPs provide for the consultations suggested by the proposed additional item (3). The proposed polices and BMPs in Section 2.2.3.1, Proposed Policies, 3rd and 5th bullets, and Section 2.2.3.2.2, Plan of Development Preparation, 1st bullet,

ensure timely consultations with appropriate federal, state, and local agencies, and other stakeholders, including DoD. No text change has been made to the document in response to your comment.

80070-021: Thank you for your comment. No text change has been made to the document in response to your comment.

80070-022: Thank you for your comment. No text change has been made to the document in response to your comment.

80070-023: Most public lands that are "withdrawn" are public lands withdrawn from entry under the mining laws (1872 Mining Law) and continue to be available for a wide variety of other uses, including ROWs and energy mineral development, including wind energy. As a result, there is no reason to categorically exclude these lands from wind energy development. Lands withdrawn for military purposes are under the jurisdiction of the military and are not managed by the BLM until the withdrawal is revoked and the lands returned to the administration of the BLM. As a result, lands withdrawn for military purposes would not be available for wind energy development under the auspices of the BLM's proposed Wind Energy Development Program. The 5th bullet in Section 2.2.3.1 has been revised to clarify that lands withdrawn for military purposes are under the administrative jurisdiction of the DoD or a military service and are not available for issuance of wind energy authorizations by the BLM.

80070-024: The WinDS model cannot predict the exact location of the developable acreage. The WinDS model has 356 regions that cover the United States. For each of these regions, the model has a four-step supply curve for each class of wind resource within the region. Each step of the supply curve includes numerous wind sites with roughly equal costs. Frequently a step is only partially used. In these cases, WinDS does not know exactly which windy areas on the step are used. The WinDS model estimated the amount of wind power that will be generated over the next 20 years in the 11-state study area. These estimates of power generation were then converted to number of acres developed on the basis of 1 MW of power requiring approximately 50 acres of land. The text in Section B.2.2.1 has been modified to include this information.

80070-025: The 5th bullet in Section 2.2.3.1, Proposed Policies, already requires consultation with the DoD. No text change has been made to the document in response to your comment.

80070-026: The BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM-administered land. The agreement will establish a process and identify the scope of potential issues for consultation. The BLM will seek consultation with the DoD on all wind energy development projects.

80070-027: The BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM-administered land. The agreement will establish a process and identify the scope of potential issues for consultation. The BLM will seek consultation with the DoD on all wind energy development projects.

80070-028: Section 2.2.3.1, Proposed Policies, 5th bullet, and Section 2.2.3.2.2, Plan of Development Preparation, General, 1st bullet, require early contact with appropriate agencies, including DoD. DoD airspace and range managers would be included among the appropriate agencies. No text change has been made to the document in response to your comment.

80070-029: The 1st bullet in Section 2.2.3.2.2, Plan of Development Preparation, and the 5th bullet in Section 2.2.3.1, Proposed Policies, provide for adequate consultation with DoD. No text change has been made to the document in response to your comment.

80070-030: The notifications you suggest are already required by the Wind Energy Development Program proposed policies and BMPs under the 5th bullet in Section 2.2.3.1, Proposed Policies, and the 1st bullet under General in Section 2.2.3.2.2, Plan of Development Preparation.

80070-031: The consultation you suggest is already required by the 5th bullet in Section 2.2.3.1, Proposed Policies. This bullet has been modified to reflect that the BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM-administered land. The agreement will establish a process and identify the scope of potential issues on which to be consulted.

The language on the Wind Energy Development Program proposed policies and BMPs has been reworded in the Final PEIS to indicate that these policies and BMPs are required, not suggested, elements of any wind energy development activity on BLM-administered land.

80070-032: Section 2.2.3.1, Proposed Policies, 5th bullet, and Section 2.2.3.2.2, Plan of Development Preparation, General, 1st and 4th bullets ensure coordination with the military and the FAA as well as other appropriate parties.

80070-033: As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses will be conducted for any proposed project on BLM-administered lands. Conduct of these site-specific analyses will provide an opportunity to adequately address issues associated with radar echoes from wind turbines. With regard to the military, the BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM-administered land. The agreement will establish a process and identify the

scope of potential issues for consultation. The BLM will seek consultation with the DoD on all wind energy development projects.

80070-034: As required by the Wind Energy Development Program proposed policies and BMPs, site-specific habitat restoration plans will be developed for any wind energy project proposed for BLM-administered lands. As specified in the BMP, the plan shall be developed to minimize or mitigate negative impacts to vulnerable wildlife while maintaining or enhancing habitat values for other species, and shall require that restoration occur as soon as possible after completion of activities. The restoration approach, tools, and methods will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders, or through local land use requirements and planning efforts with opportunities for full public involvement. Through this process, the BLM will develop project-specific restoration stipulations for incorporation into the POD. No text change has been made to the document in response to your comment.

80070-035: As stated in Chapter 1, the National Energy Policy recommends that the Department of the Interior work with other federal agencies to increase renewable energy production on public lands. If the BLM's Wind Energy Development Program establishes requirements that render wind energy development on BLM-administered lands uneconomic, the National Energy Policy recommendation will not be accomplished. The BLM's program ensures that potential adverse impacts will be minimized to the greatest extent possible while simultaneously increasing the amount of wind energy development on BLM-administered lands over the next 20 years.

80070-036: The referenced BMP has been retitled "Ground Transportation" as suggested.

80070-037: The BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM-administered land. The agreement will establish a process and identify the scope of potential issues for consultation. The BLM will seek consultation with the DoD on all wind energy development projects.

80070-038: Section 3.1 describes typical development activities associated with wind energy projects, not prepermit consultations. Pre-permit consultation is discussed in Chapter 2, Proposed Action and Alternatives. Pre- construction requirements would be addressed in the plan of development for a particular project. Section 2.2.3.2.2, Plan of Development Preparation, provides the BLM standards for these plans. No text change has been made to the document in response to your comment.

80070-039: The use of PCB-containing dielectric fluids is limited by statute (the Toxic Substances Control Act, TSCA) as well as by federal regulation (see 40 CFR 761.30). Although there are no categorical prohibitions regarding the use of

PCB dielectric fluids in wind farms, the wind farm operator's ability to do so is quite limited, especially since production of PCBs has ceased in the United States. The decision to use PCB-containing dielectric fluids in transformers and other electrical devices rests with the developer. Because certain uses of PCB-containing electrical equipment are still permitted, the BLM will not categorically prohibit their use unless it has clear evidence that such use would inexorably result in adverse impacts to the environment, facility personnel, or the public.

80070-040: The third paragraph of Section 3.1.1 acknowledges the trend toward taller meteorological towers in order to measure wind regime characteristics at or near the hub heights of the expected wind turbines. That discussion also goes on to note the particular requirements that would be associated with erection of these taller towers; for example, the foundations that would be required and the potential applicability of FAA lighting regulations.

80070-041: The applicable regulations are listed in Table E-2, Land Use, in Appendix E. No text change has been made to the document in response to your comment.

80070-042: The BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM-administered land. The agreement will establish a process and identify the scope of potential issues for consultation. The BLM will seek consultation with the DoD on all wind energy development projects.

80070-043: The rotor hub height (considered to be approximately equivalent to tower height) ranges from 30 to 120 m (98 to 394 ft) (see Table D-2). Adding the length of turbine blades could result in a height greater than 152 m (500 ft). However, because a wind energy development project would have to meet appropriate FAA criteria, no adverse impacts to aviation would be expected.

80070-044: The BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM-administered land. The agreement will establish a process and identify the scope of potential issues for consultation. The BLM will seek consultation with the DoD on all wind energy development projects.

80070-045: The BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM-administered land. The agreement will establish a process and identify the scope of potential issues for consultation. The BLM will seek consultation with the DoD on all wind energy development projects.

80070-046: The text has been revised or clarified in response to your comment.

80070-047: A sentence has been added to Section 4.7.3 that states that incompatibility with military missions could be a basis for permit denial should there be no available mitigation options.

80070-048: Text has been added to Sections 4.7.3 and 5.10.3 that discusses the potential for radar interference from wind energy facilities.

80070-049: Figure 4.7.3-1 was provided to the BLM for use in the PEIS by the U.S. Air Force. The information presented in Section 4.7.3 presents the most current information that is readily available to the public for all of the states considered in the PEIS. Updating this information would not change the conclusions in the PDEIS. The most current information will be required for site-specific analyses. This will be determined on a project-by-project basis in conjunction with input from the DoD. No text change has been made to the document in response to your comment.

80070-050: The PEIS does not distinguish between commercial and military radar. This issue would need to be considered under the DoD protocol. The BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM- administered land. The agreement will establish a process and identify the scope of potential issues for consultation, including potential impacts of EMF/EMI on military radar.

80070-051: The reclamation efforts needed to restore a site as close as possible to a predevelopment state will be evaluated at the site-specific level at the point in time when a decision is made to decommission a site. Development of a decommissioning plan at the Plan of Development phase is premature given that decommissioning may not occur for several decades. A BMP has been added to Section 2.2.3.2.5, Decommissioning, requiring the development and implementation of an approved decommissioning plan prior to termination of the ROW authorization. Required elements of the decommissioning plan include a site reclamation plan and monitoring program.

The BLM will require financial bonds for all wind energy development projects on BLM-administered lands to ensure compliance with the terms and conditions of the ROW authorization and the requirements of applicable regulatory requirements, including reclamation costs. The amount of the required bond will be determined during the ROW authorization process on the basis of site-specific and project-specific factors. The BLM may also require financial bonds for site monitoring and testing authorizations. A requirement regarding the establishment of bonds has been added to the proposed policies (see Section 2.2.3.1).

80070-052: EMI is discussed in Section 3.3.4, Aviation Operations and Electromagnetic Interference. Mitigation measures applicable to limiting EMI are discussed in

Section 5.8.2, and BMPs have been proposed in Section 2.2.3.2.2, Plan of Development Preparation, and Section 2.2.3.2.4, Operation, under the health and safety headings.

80070-053: The BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM-administered land. The agreement will establish a process and identify the scope of potential issues for consultation. The BLM will seek consultation with the DoD on all wind energy development projects.

80070-054: The BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM-administered land. The agreement will establish a process and identify the scope of potential issues for consultation. The BLM will seek consultation with the DoD on all wind energy development projects.

80070-055: The suggested editorial change has been made. A discussion has also been added to Section 5.10.3 that indicates that wind project structures could cause radar interference.

80070-056: Text has been added to the end of Section 5.10.3 to reflect the editorial suggestions made in the comment.

80070-057: The BLM and DoD are working on an interagency protocol agreement that will establish a consultation process between the two agencies on wind energy development projects on BLM-administered land. The agreement will establish a process and identify the scope of potential issues for consultation. The BLM will seek consultation with the DoD on all wind energy development projects.

80070-058: As stated in Section 5.10.2, a wind energy development would need to meet appropriate FAA criteria. Placement of lights on turbine blades could result in additional visual and ecological impacts. Knowledge of the location of wind development projects and maximum turbine blade height above ground level could be considered in preplanning for military testing and training operations. No text change has been made to the document in response to your comment.

80070-059: The referenced sentence lists land uses that would generally be compatible with wind energy development. For many reasons discussed in the PEIS, this may not be true for military activities; therefore, it would be inappropriate to make the suggested change.

80070-060: Chapter 7, which has been retitled as "Consultation and Coordination Undertaken to Support Preparation of the PEIS," describes consultation and coordination that took place during the preparation of the draft PEIS. The Wind Energy Development Program proposed policies and BMPs in Section 2.2, Description of the Proposed Action, ensure that needed consultations and

coordination will continue into the future. No text change has been made to the document in response to your comment.

Document 80071

WindEISArchives

From: windeiswebmaster@anl.gov
Sent: Friday, December 10, 2004 2:21 PM
To: WindEISArchives
Subject: Wind Energy EIS Comment 80071

Bennet_letter_80071.pdf (29 KB...

Thank you for your comment, sadrul ula.

The comment tracking number that has been assigned to your comment is 80071. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 10, 2004 02:20:47PM CDT

Wind Energy EIS Draft Comment: 80071

First Name: sadrul
Last Name: ula
Organization: Wyoming Governor's Office
Address: State Capitol
City: cheyenne
State: WY
Zip: 82002
Country: USA
Privacy Preference: Don't withhold name or address from public record
Attachment: C:\Documents and Settings\sula\My Documents\Bennet letter.pdf

Comment Submitted:
Comments from the Governor of Wyoming's Office is attached as a pdf file.

Questions about submitting comments over the Web? Contact us at: windeiswebmaster@anl.gov or call the Wind Energy EIS Webmaster at (630)252-6182.

DAVE FREUDENTHAL
GOVERNOR

THE STATE OF WYOMING

STATE CAPITOL
CHEYENNE, WY 82002

Office of the Governor

December 10, 2004

Robert A. Bennett
State Director
Bureau of Land Management
US Department of the Interior
Cheyenne, Wyoming 82003-1828

Subject: BLM's Draft Programmatic Environmental Impact Statement (DPEIS) on Wind Energy Development

Dear Mr. Bennett:

Thank you for seeking Governor Freudenthal's input on BLM's Draft Programmatic Environmental Impact Statement (DPEIS) on Wind Energy Development on BLM-Administered Lands in the Western United States. I offer this response on behalf of Governor Freudenthal.

Regarding BLM's proposed action to implement a **Wind Energy Development Program** for the years 2005-2025, we agree with the following potential benefits listed in the DPEIS:

1. *Amendment of land use plans.* This PEIS would provide the necessary level of NEPA analysis to support the amendment of land use plans to address wind energy development in those planning areas that have the potential for future wind energy development.
2. *Tiering of project-specific environmental analyses.* The future, project-specific environmental analyses for wind energy development would tier off the analyses conducted in this PEIS and the decisions in the resultant Record of Decision (ROD), and thereby allow the project-specific analyses to focus just on the critical, site-specific issues of concern.
3. *Development of comprehensive policies and BMPs.* This would provide comprehensive policies and Best Management Practices (BMPs) providing guidance that would be applicable to all wind energy development projects on BLM-administered lands.
4. *Consistency of ROW application and grant process.* Implementation of this PEIS would result in greater consistency in the Right of Way (ROW) application and grant process.

With respect to the Maximum Potential Development Scenario (MPDS), with wind power classes ranging from 1 to 7, Class 3 and higher were considered economically developable in this study. Figure 2.2.1-1 of this draft shows Wyoming to have the best 80071-1

TTY: 777-7860 PHONE: (307) 777-7434 FAX: (307) 632-3999

wind potential among these 11 western states. Similarly, in Table 2.2.1-1, the Total Potentially Developable Land generated by the MPDS Model is shown as 7,902,000 acres – by far the largest among these states. But the Total Economically Developable Land generated by the WinDS Model shows only 3,700 acres – one of the lowest states in the list

80071-1 (cont.)

Figure D-7, which was adapted from the American Wind Energy Association (AWEA 2004), shows the existing wind energy projects in the US : Wyoming has 284.6 MW compared to Utah's 0.2 MW. The wind energy development so far is a clear indication of the economic viability of the wind projects under the existing conditions and it appears that Wyoming's proven record in wind energy development has been severely discounted in this WinDS Model.

As stated in Section 2.6.1, "The proposed action to implement a Wind Energy Development Program would likely minimize some of the delays and costs currently associated with development on BLM-administered lands by providing programmatic guidance, facilitating land use plan amendments, and ensuing consistency in the ROW application and grant process." We strongly agree with this statement.

We also agree with the statement found in Section 2.6.2, "In contrast, under the **no action alternative**, the BLM would continue to address environmental impact issues at the project level in accordance with the terms and conditions of the Interim Wind Energy Development Policy (BLM 2002a) (Appendix A). While it is likely that these efforts also would result in effective project-specific impact mitigation, the potential for inconsistencies in the type and degree of required mitigation would exist." This no action alternative would likely cause development to occur at a slower pace with greater cost of wind energy development.

80071-2

The **limited wind energy development alternative** would essentially restrict new developments only on the existing sites and would result in least development of this vast renewable resource.

Over all, we like the BLM's proposed action to implement a Wind Energy Development Program. But we would like to draw your attention to the drastically reduced number shown for Wyoming's economically developable land, as explained above.

If you have any questions, please do not hesitate to contact me at 307 777 6924.

Sincerely,

Sadrul Ula
Energy Advisor
Office of the Governor
122 West 25th St.
Cheyenne, WY 82002
Phone: 307 777 6924
FAX : 307 777 8586

Responses for Document 80071

80071-001: The projected numbers of economically developable acres of BLM-administered lands presented in Table 2.2.1- 1, which are based on results of WinDS model analyses, do not include existing capacity and are unlikely to correspond to specific initiatives underway or being considered. The projection for proportionately lower wind energy development in Wyoming (and in Montana) is likely the result of several factors considered in the WinDS model, such as distance from areas of high electricity demand and from available transmission line capacity. Finally, the results in Table 2.2.1-1 are only for wind development on BLM-administered land.

The purpose of the modeling efforts in this PEIS is to provide a general framework of possible development over the next 20 years, in order to assess the potential spatial, environmental, social, and economic impacts of implementing a Wind Energy Development Program for BLM-administered lands. The BLM recognizes that many factors can affect the accuracy of the projections, and, as discussed in Appendix B, a variety of factors will determine actual development levels. However, the MPDS and WinDS models employed in the PEIS are adequate for forecasting potential development levels over such a large geographic area and long, projected time frame. Greater accuracy in these forecasts would not likely result in changes to the requirements of the Wind Energy Development Program; that is, the proposed policies and BMPs would not be changed at this time. Under the proposed Program, the BLM will employ adaptive management strategies to the oversight of wind energy development on BLM-administered lands. The BLM will monitor the level of wind energy development into the future as well as the effectiveness of its policies and BMPs. If necessary, adjustments to the programmatic requirements will be made.

80071-002: Thank you for your comment. We appreciate your input and participation in the public review process.

Document 80072

WindEISArchives

From: windeiswebmaster@anl.gov
Sent: Friday, December 10, 2004 2:54 PM
To: WindEISArchives
Subject: Wind Energy EIS Comment 80072

BLM_wind_commen
ts_12-04_80072....

Thank you for your comment, Dustin Miller.

The comment tracking number that has been assigned to your comment is 80072. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 10, 2004 02:54:09PM CDT

Wind Energy EIS Draft Comment: 80072

First Name: Dustin
Middle Initial: T
Last Name: Miller
Organization: Idaho Farm Bureau Federation
Address: 500 W. Washington
City: Boise
State: ID
Zip: 83701
Country: USA
Email: dmiller@idahofb.org
Privacy Preference: Don't withhold name or address from public record
Attachment: C:\Documents and Settings\dmiller\Desktop\Dustin\BLM wind comments 12-04.doc

Questions about submitting comments over the Web? Contact us at: windeiswebmaster@anl.gov or call the Wind Energy EIS Webmaster at (630)252-6182.

IDAHO FARM BUREAU FEDERATION
P.O. Box 167 • 500 West Washington Street
Boise, Idaho 83701-0167 • (208) 342-2688
FAX (208) 342-8585

December 9, 2004

BLM Wind Energy Programmatic EIS
Argonne National Laboratory, EAD/900
9700 S. Cass Avenue
Argonne, IL 60439

RE: WIND ENERGY DEVELOPMENT PROGRAM

To Whom It May Concern:

On behalf of the more than 62,000 families who are members of the Idaho Farm Bureau, I am pleased to offer these comments on the suitability of developing wind power on BLM administered lands and its recent draft programmatic environmental impact statement (PEIS).

The members of the Farm Bureau applaud the President and the Department of Interior's efforts to strengthen our nation's energy security through increasing the use of efficient and renewable local resources. With our ever increasing energy consumption pattern in the United States, and our current dependency on foreign oil resources, it is extremely important to look into alternate fuel sources domestically to help meet our energy demands in the future.

The members of the Idaho Farm Bureau support wind energy on federal lands for three main reasons. First, rural areas would experience a boost in high paying skilled jobs. This will provide an opportunity for local kids to stay in their rural communities and be able to support a family. One of the most serious problems in rural areas today is the lack of good paying, skilled job opportunities, leading to the recent trend of rural youth moving to more urban areas to experience more opportunities.

Second, wind power rates are inherently low and stable over an extremely long contract period. Farmers use a significant amount of power during the summer months in Idaho pumping irrigation water. Idaho Power's answer to increased demand for power has been to build additional gas fired power plants. Unfortunately, gas prices are extremely volatile. Farmers are very concerned that they will be doomed to paying ever-increasing costs for power as the cost of more and more expensive gas is passed on each year in the annual power cost adjustment. Wind power offers the potential for extremely competitive, fixed pricing over a long period of time. This will help to smooth and lower the cost of power for all ratepayers over time. 80072-1

Third, rural counties will receive property taxes on wind turbines located in their counties on Bureau of Land Management (BLM) land. This will be a great opportunity for a much-needed infusion of tax dollars into depressed rural economies. Since each megawatt of installed wind power roughly equates to a million dollars of invested capital, this would be a significant source of new revenue for rural counties to reduce already heavy tax burdens.

The recent draft programmatic environmental impact statement (PEIS) prepared by the BLM for the establishment of a Wind Energy Development Program this year includes three alternatives: (1) A proposed action to implement a wind energy development program, (2) A no-action alternative, and (3) a limited wind energy development alternative. The IFBF strongly supports the proposed action simply because the benefits of implementing a wind energy development program greatly out-weigh the costs.

The proposed action, if implemented would allow private interests to make use of this renewable resource bringing to rural areas the benefits stated earlier. Under this alternative, a number of BLM land-use plans would be amended to address wind energy development in areas of high wind production potential. Although the BLM is charged with the management of a vast array of multiple-use activities that take place on these federal lands, we believe that wind power development would coincide well within their management objectives. Furthermore, we believe that the development of wind power on these lands would do nothing to diminish the ability of another currently allowed activity to persist. 80072-1 (cont.)

As we discussed in our comments dated November of 2003 that we submitted in the scoping phase of the analysis, it is our understanding that private wind developers on BLM land pay royalties to the agency depending on the amount of power that is sold from each tower. We have also come to understand that the BLM has relatively minor expenses for the administration of the development once it is in place.

Therefore, we propose a practical solution to this by having royalty payments that are paid by a wind producer to the BLM, be split with the county government. So essentially the wind power producer would pay half of his royalties to the BLM while the other half went to the county the producer operates in. This would give additional incentives to those counties who have good wind resources to assist in attracting and locating these facilities in their counties and would also result in a real economic boom to the rural area. Further reductions in local tax rates, made possible through these shared royalties, would help to attract other businesses and would start a cycle of enhanced economic activity in the county. 80072-2

Therefore, the members of the Idaho Farm Bureau strongly support the BLM allowing the development of wind energy on federal lands as it will bring needed jobs, taxes and economic development to rural areas of the state and lower, more stable power prices for all ratepayers. We hope this EIS will streamline the process and allow future wind projects on the BLM to be completed in an efficient and timely manner.

Thank you for the opportunity to comment on this important issue.

Sincerely,

Frank Priestley

Frank Priestley, President
Idaho Farm Bureau Federation

Responses for Document 80072

80072-001: Thank you for your comment. We appreciate your input and participation in the public review process.

80072-002: Portions of the federal revenues associated with wind energy development on BLM-administered lands are distributed to local governments under both (1) the Payments in Lieu of Taxes (PILT) program appropriated by Congress, and (2) provisions of the Reclamation Act of 1902 that distribute a percentage of the federal receipts. The BLM has no authority over the distribution of these funds at the local level.

Document 80073

WindEISArchives

From: windeiswebmaster@anl.gov
Sent: Friday, December 10, 2004 3:06 PM
To: WindEISArchives
Subject: Wind Energy EIS Comment 80073

BLM_Draft_PEIS_-_AWEA_comments...

Thank you for your comment, Laurie Jodziewicz.

The comment tracking number that has been assigned to your comment is 80073. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 10, 2004 03:06:01PM CDT

Wind Energy EIS Draft Comment: 80073

First Name: Laurie
Last Name: Jodziewicz
Organization: American Wind Energy Association
Address: 122 C Street, NW
Address 2: Suite 380
City: Washington
State: DC
Zip: 20001
Country: USA
Email: ljodziewicz@awea.org
Privacy Preference: Don't withhold name or address from public record
Attachment: H:\BLM PEIS\Draft PEIS comments\BLM Draft PEIS - AWEA comments Final.pdf

Questions about submitting comments over the Web? Contact us at: windeiswebmaster@anl.gov or call the Wind Energy EIS Webmaster at (630)252-6182.

Comments of the American Wind Energy Association to the *Draft Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States*

The American Wind Energy Association (AWEA) and its members greatly appreciate the efforts of the Bureau of Land Management (BLM) to develop the *Draft Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States* (draft PEIS). BLM's desire to encourage renewable energy production, including wind energy, on federal lands is, as described in detail in the draft PEIS, beneficial for everyone involved in terms of economic benefits and clean electricity production.

The wind energy industry is pleased that the BLM developed the draft PEIS in order to bring standards and consistency to the BLM's consideration of environmental issues that are similar across all wind energy projects proposed on BLM-administered lands in the western U.S. As BLM officials such as Rebecca Watson, Assistant Secretary for Land and Minerals Management at the Department of the Interior, have indicated in the press, wind energy projects would continue to conform to site-specific analyses and public participation processes for individual projects. However, the ability to tier an Environmental Assessment (EA) off of the analyses in the PEIS and the decisions in the resultant Record of Decision (ROD) will allow all involved to focus on any site-specific issues and reduce the need for duplicative reviews for every wind energy project.

Below are selected statements and sections in the draft PEIS. In each case, AWEA's comments on the highlighted statement or section are provided and a recommendation is made. AWEA appreciates the opportunity to comment on the draft PEIS and looks forward to working with the BLM on the development of wind energy on public lands.

These comments reflect the views of the diverse membership of AWEA, including companies such as FPL Energy, Orion Energy, PPM Energy, SeaWest WindPower, Stoel Rives LLP, Tetra Tech, and Zilkha Renewable Energy.

Application Process

Statement: "*Tiering off project-specific environmental analyses.* The BLM proposes that future, project-specific environmental analyses for wind energy development would tier off of the analyses conducted in this PEIS and the decisions in the resultant Record of Decision (ROD), and thereby allow the project-specific analyses to focus just on the critical, site-specific issues of concern." [2.2]

- Comment: Clarify this statement to indicate the preference for EA's rather than site-specific EIS's unless there is significant public concern or significant impacts. In the *Interim Wind Energy Development Policy* language was included to this effect.

80073-1

- Recommendation: Add the following language from the Interim Policy: "A comprehensive Environmental Assessment (EA) will usually be required, however, an Environmental Impact Statement (EIS) may be required if significant public controversy or a determination of significant adverse impacts is made. It may also be possible to combine the required environmental review process for a wind energy development project with applicable State or local environmental procedures for energy facility siting. This would both streamline the process and be consistent with Departmental policy on intergovernmental cooperation."

Wildlife

Statement: "Meteorological towers should not be located in or near sensitive habitats or in areas where ecological resources known to be sensitive to human activities… are present." [2.2.3.2.1]

- Comment: We are aware of many cases of meteorological towers placed near sensitive areas where no adverse impacts were found.

80073-2

- Recommendation: "Meteorological towers should not be located in or near locations known to support ESA-protected species which are expected to be adversely and significantly impacted by the installation of the meteorological tower."

Statement: "The monitoring program should incorporate adaptive management strategies to ensure that potential adverse impacts of wind energy development are mitigated to the fullest extent possible throughout the life of the project." [2.2.3.2.2]

80073-3

- Comment: A continuous monitoring program appears to address all of the unknowns that could arise, creating significant uncertainty for the wind project owner.

- Comment: Right-of-way holders should not be required to mitigate impacts "to the fullest extent possible throughout the life of the project." Certain impacts, such as visual impacts, cannot be mitigated while others can be mitigated only at a cost that is disproportionate to the impact. This language should be amended to "mitigated to a level of insignificance, to the extent practicable."

- Recommendation: "If appropriate, the monitoring program should incorporate adaptive management strategies for a reasonable period of time to ensure that potential adverse impacts of wind energy development are mitigated to a level of insignificance, to the extent practicable."

80073-3 (cont.)

Statement: "…the location of turbines in areas with high bird usage, in known bird migration pathways, near wetlands and other bird-rich habitats, and in areas with a high incidence of fog and mist, should be avoided." [2.2.3.2.2]

- Comment: Scientifically-based avian studies and evaluation of proposed project sites can identify sites that pose a significant risk to avian species of concern. There are many existing wind projects that do not experience high rates of avian mortality but are near areas with high bird usage, in known bird migration pathways, near wetlands and other bird-rich habitats, and in areas with a high incidence of fog and mist.

- Recommendation: "…the location of turbines in areas with high bird usage, in known bird migration pathways, near wetlands and other bird-rich habitats, and in areas with a high incidence of fog and mist, should be avoided *if site studies show the turbines would pose a significant risk to avian species of concern*." [Emphasis indicates additional language proposed]

80073-4

Statement: "turbines should be configured to avoid landscape features known to attract raptors" [2.2.3.2.2; 5.9.5.2.1]

- Comment: Scientifically-based avian studies and evaluation of proposed project sites can identify sites that pose a significant risk to raptor species of concern.

- Recommendation: "turbines should be configured to avoid landscape features known to attract raptors *only if a particular feature is heavily used by raptors and if site studies show placing turbines there would pose a significant risk to raptor species of concern*." [Emphasis indicates additional language proposed]

80073-5

Statement: "Procedures should be developed to mitigate potential impacts to special status species. Such [mitigation] measures could include avoidance, relocation of project facilities or lay-down areas, and/or relocation of biota." [2.2.3.2.2]

80073-6

- Comment: Mitigation should be addressed to species of concern. "Species of concern" means species that might be in need of conservation action. (See http://endangered.fws.gov/glossary.pdf.) It includes species listed as threatened or endangered under the federal Endangered Species Act (ESA) and "candidate" species actively being considered for listing under the ESA. 80073-6 (cont.)

- Recommendation: Replace "special status species" with "species of concern."

Statement: "New access roads and utility corridors should be configured to avoid high quality habitats and minimize habitat fragmentation." [5.9.5.2.1]

- Comment: Any required measures to protect habitats should be addressed to "species of concern" and must be practicable.

- Recommendation: "New access roads and utility corridors should be configured to avoid high quality habitats *of species of concern* and minimize fragmentation *of habitats of species of concern, to the extent practicable*." [Emphasis indicates additional language proposed] 80073-7

Statement: "Permanent meteorological towers, transmission towers, and other facility structures should be designed so that they cannot be used for perching or nesting by birds." [5.9.5.2.1]

- Comment: Developers cannot guarantee that no perching or nesting will occur on any structures in a project. For example, developers cannot prevent perching or nesting on an O&M building.

- Recommendation: "Permanent meteorological towers *and wind turbines* should be designed to *minimize the potential for perching and nesting by raptors, to the extent practicable. Overhead distribution lines should conform to the recommendations of the Avian Power Line Interaction Committee (APLIC) in its Suggested Practices for Raptor Protection on Power Lines (1996)."* [Emphasis indicates additional language proposed] 80073-8

Statement: "Turbines and other project facilities should not be located in areas with known high bird usage; in known bird and/or bat migration corridors or known flight paths; near raptor nest sites; and in areas used by bats as colonial hibernation, breeding, and maternity/nursery colonies." [5.9.5.2.1]

- Comment: Scientifically-based avian and bat studies and evaluation of proposed project sites can identify sites that pose a significant risk to avian and bat species of concern. There are many existing wind projects that do not experience high rates of avian or bat mortality but are near areas with known high bird usage; in known bird and/or bat migration corridors or known flight paths; near raptor nest 80073-9

sites; and in areas used by bats as colonial hibernation, breeding, and maternity/nursery colonies.

- Recommendation: "Turbines and other project facilities should not be located in areas with known high bird usage; in known bird and/or bat migration corridors or known flight paths; near raptor nest sites; and in areas used by bats as colonial hibernation, breeding, and maternity/nursery colonies, *if site studies indicate that they would pose a high risk to species of concern.*" [Emphasis indicates additional language proposed] 80073-9 (cont.)

Statement: "Buffer zones should be established around raptor nests, bat roosts, and biota and habitats of concern." [5.9.5.3.2]

- Comment: Scientifically-based avian and bat studies and evaluation of proposed project sites can identify sites that pose a significant risk to avian and bat species of concern. There are many existing wind projects that do not experience high rates of avian or bat mortality but are near raptor nests, bat roosts, or biota or habitats of concern. 80070-10

- Recommendation: "Buffer zones should be established around raptor nests, bat roosts, and biota and habitats of concern *if the proposed turbines and other project facilities are shown to pose a significant risk to avian or bat species of concern.*" [Emphasis indicates additional language proposed]

Statement: "Higher-height vegetation should be encouraged along transmission corridors to minimize foraging in those areas by raptors." [5.9.5.4.3]

- Comment: This language appears to be specific only to the Altamont Pass Wind Resource Area and not applicable to wind projects in other locations. Additionally, there are other concerns, such as public safety (e.g. fire hazard) and maintenance issues that conflict with this recommendation. 80073-11

- Recommendation: Delete this statement.

Statement: "Biota protected by state statutes should be relocated." [5.9.5.6]

- Comment: This statement is too broad. Biota means all the plant and animal life of a particular region. If plants protected by state statutes will be unavoidably impacted by the proposed turbines or other project facilities, one possible means of mitigating the impact is to relocate the impacted plants to another location, but relocation may not always be the best or most practical choice for mitigation. State law will dictate the preferred means of protecting biota protected under state statutes. 80073-12

- Recommendation: Delete this statement. 80073-12 (cont.)

Sound

Statement: "Proponents of a wind energy development project should take measurements to assess the existing background noise levels at a given site and compare them with the anticipated noise levels associated with the proposed project." [2.2.3.2.2; 5.5.5]

- Comment: Project proponents should be required to comply with applicable state and local noise regulations. Most noise regulations do not require measurements of background noise levels prior to installation of the project. In many cases, there will not be any sensitive receptors close enough to the proposed turbines to hear the wind turbine noise, so these measurements will serve no useful purpose. 80073-13

- Recommendation: Replace this statement with the following: "If there are residences, hospitals, retirement facilities, churches or other sensitive noise receptors within 1 mile of the proposed wind turbines, then project proponents should model the expected noise levels at the nearest receptor to ensure compliance with state and local noise standards applicable to the project."

Section: Low-Frequency Sound [3.3.5]

- Comment: A critical survey of published measurement results of infrasound from wind turbines concludes that wind turbines with the rotor located upwind of the tower produce only very low levels of infrasound [See reference below]. Even measured quite close to these turbines the infrasound level was found to be far below relevant assessment criteria, including the limit of human perception. In the evaluation of the environmental impact of wind turbines, such low infrasound levels are not significant.
  Reference:
  - Jørgen Jakobsen, Danish Environmental Protection Agency, **Infrasound Emission from Wind Turbines,** 11th International Meeting On Low Frequency Noise and Vibration and its Control, Maastricht, The Netherlands, 30 August to 1 September 2004. 80073-14

- Comment: Wind turbines with a downwind rotor generate considerably higher infrasound levels, which may violate relevant assessment criteria in distances up to several hundred meters. At greater distances the infrasound level drops below these criteria, and experts have questioned whether the infrasound can be the cause of reported negative public reactions to large downwind turbines.
  Reference:

- Jørgen Jakobsen, Danish Environmental Protection Agency, **Infrasound Emission from Wind Turbines,** 11th International Meeting On Low Frequency Noise and Vibration and its Control, Maastricht, The Netherlands, 30 August to 1 September 2004.

- Comment: Dr. Geoff Leventhall, noted acoustical expert and author of "A Review of Published Research on Low Frequency Noise and its Effects," has commented on the effects of low-frequency noise from wind turbines, as follows: "There is only a relatively small amount of low-frequency noise from wind farms, where low-frequency noise is taken to mean 10 Hz to about 200 Hz. The noise is mainly mechanical, and gear related. Considering infrasound as below 20 Hz, there is very little from wind turbines. You have to distinguish between what is technically interesting and what is relevant to subjective effects. Available information shows that infrasound levels at approximately 100 meters from a turbine rise to 60 to 70 dB at 10Hz, where the average hearing threshold is nearly 100 dB. I really do not expect infrasound from modern wind turbines to be an issue, but because of the publicity which has been given to low frequency noise, we have to take this on board in order to find out the true facts". 80073-14 (cont.)

  References:
  - Bastasch, Mark. **Revising Oregon's Noise Regulations for Wind Turbines.** NOISE-CON 2004. Baltimore, Maryland. July 12-14, 2004.

- Comment: This section appears to be based on an older installations of downwind machines. It references subjective criteria and 'complaints'. This section is alarming and unnecessary given that *all modern turbines are upwind.*

- Recommendation: Modify this section to reflect the comments above.

Statement: "The human response to changes in decibel levels has the following characteristics (NWCC 1998): A 3-dB change in sound level is considered a barely noticeable difference; A 5-dB change in sound level will typically result in a noticeable community response; and, A 10-dB change, which is generally considered to be a doubling of the sound level, almost certainly causes an adverse community response." [4.5.1] 80073-15

- Comment: This statement is overbroad and lacks context when applied to a wind project. At many project sites on BLM-administered lands, large fluctuations in broadband wind noise will be common, and an increase from 20 to 30 dB or even 30 to 40 dB would not likely be objectionable to the community.

- Recommendation: Delete this statement.

Statement: "Proponents of a wind energy development project should take measurements to assess the existing background noise levels at a given site and 80073-16

compare them with the anticipated noise levels associated with the proposed project (Section 4.5.2)." [5.5.5]

- Comment: Project proponents should be required to comply with applicable state and local noise regulations. Most noise regulations do not require measurements of background noise levels prior to installation of the project. In many cases, there will not be any sensitive receptors close enough to the proposed turbines to hear the wind turbine noise, so these measurements will serve no useful purpose. 80073-16 (cont.)

- Recommendation: Replace this statement with the following: "If there are residences, hospitals, retirement facilities, churches or other sensitive noise receptors within 1 mile of the proposed wind turbines, then project proponents should model the expected noise levels at the nearest receptor to ensure compliance with state and local noise standards applicable to the project."

Statement: "Noisy activities should be scheduled to occur at the same time since additional sources of noise generally do not add a significant amount of noise." [5.5.5]

- Comment: It may be appropriate to include the time-of-day restrictions on noisy activities, but this statement implies that all blasting must be done at the same time, which is impractical and would significantly increase the amount of noise. 80073-17

- Recommendation: Delete this statement.

Visual

Statement: "Turbine arrays and the turbine design should be integrated into the surrounding landscape. To accomplish this integration, several elements of design need to be incorporated." [5.11.6]

- Comment: This statement would be difficult or impossible to comply with in many cases. Turbine placement is usually not flexible, as the turbines must be located where they will operate most effectively, and changes in placement often substantially impact performance. Further, turbine placement, design and integration should not be implemented to the detriment of other environmental considerations and may not be economically viable. 80073-18

- Recommendation: This statement should be deleted.

Statement: "The operator should avoid placement of ancillary structures on high land features and along "skylines". [5.11.6] 80073-19

- Comment: This statement is too broad. There is often no practical alternative to placing ancillary structures on high land features and along "skylines".

- Recommendation: "*To the extent practicable,* the operator should avoid placement of *substations or large operations buildings* on high land features and along 'skylines' *that are visible from nearby sensitive view points*." [Emphasis indicates additional language proposed]

80073-19 (cont.)

Statement: "The operator should bury power collection cables or lines on site." [5.11.6]

- Comment: It may be impracticable to bury power collection cables or lines where blasting is the only commercially reasonable method of burying the power line, or where the power line crosses a road, railroad, pipeline, power line, ravine, flowing water, wetland, or location that has plant species of concern.

- Recommendation: "*If practicable*, the project proponent should bury power collection cables or lines on site *unless burial would result in increased impacts or would violate applicable law*." [Emphasis indicates additional language proposed]

80073-20

Noxious Weeds

Statement: "...the cleaning of vehicles prior to arrival at a location to avoid the introduction of invasive weeds should be required." [2.2.3.2.2]

- Comment: It is impracticable and unnecessary to clean every vehicle prior to its arrival at the project location.

- Recommendation: Replace this statement with the following: "Comply with federal, state, and local noxious weed control regulations. Provide a 'clean vehicle policy' while entering and leaving construction areas to prevent transport of noxious weed plants and/or seed."

80073-21

Hazardous Materials and Waste Management [Section 2.2.3.2.2]

- Comment: It should be sufficient for the BLM to require that an operator comply with all applicable state and federal hazardous materials and waste management laws.

80073-22

- Recommendation: Replace this section with the following: "A wind project operator must develop a spill prevention and response plan and a stormwater pollution plan, if applicable, in compliance with federal and state law." 80073-22 (cont.)

Safety

Statement: "…the health and safety program should establish a safety zone or setback from residences, roads, and other public access areas that is sufficient to prevent accidents resulting from various hazards." [2.2.3.2.2]

- Comment: The public has access to much of the land managed by the BLM. The inclusion of "other public access areas" is a vague term that could be interpreted to cover vast areas not appropriate to protect public safety. 80073-23

- Recommendation: "…the health and safety program should establish a safety zone or setback *for wind turbine generators* from residences *and occupied buildings*, roads, *railroad rights-of-way, transmission corridors and above-ground pipelines* that is sufficient to prevent accidents resulting from *the operation of wind turbine generators*." [Emphasis indicates additional language proposed]

Statement: "The project should be designed to establish a sufficient setback from turbines to the nearest residence to reduce EMF, shadow flicker, and exposure to low-frequency sound emissions. A minimum setback distance of 10 rotor diameters is recommended to reduce shadow flicker (Burton et al. 2001) and may be sufficient for EMF and low frequency sound." [5.8.2 Public Safety, (pg 5-34)]

- Comment: A 10 rotor diameter setback is excessive and unnecessary to address the issues of EMF, shadow flicker and low frequency sound, as discussed elsewhere in these comments. 80073-24

- Recommendation: Delete the 10 rotor diameter setback recommendation and replace these statements with the following: "If operation of the wind turbines is expected to cause significant adverse impacts to nearby residences and occupied buildings from shadow flicker or low frequency sound, site specific recommendations for addressing these concerns should be incorporated into the project design."

Shadow Flicker

Statement: "A minimum distance of 10 rotor diameters is recommended to reduce shadow flicker…" [2.2.3.2.2] 80073-25

- Comment: A 10 rotor diameter setback to reduce shadow flicker is not based on any objective criteria. Shadow flicker at potential receptors depends on a number of different criteria including sun-angle, vegetative cover (or other landscape features), and topography. At distances of greater than 1000 feet between wind turbines and potential receptors, shadow flicker only occurs at sunrise or sunset when the shadows from moving turbine blades are sufficiently long, and generally for only a small number of hours per year. Shadow flicker can be prevented by switching on lights in an affected room, by covering a window with curtains, blinds or shutters, or by screening windows and/or receptors with trees, shrubs, fences or similar objects. 80073-25 (cont.)

- Comment: There are no documented human or animal health impacts associated with shadow flicker. The shadow flicker frequency from modern wind turbines varies, but is generally between 0.6 to 1.0 Hz (less than 1 alternation per second), whereas the Epilepsy Foundation states that frequencies below 10 Hz are not likely to trigger photosensitive epilepsy seizures.

- Recommendation: Delete the 10 rotor diameter setback for shadow flicker or modify it to reflect the comments above.

Lighting

Statement: "Additional warning information may also need to be conveyed to aircraft with onboard radar systems so that echoes from wind turbines can be quickly recognized." [2.2.3.2.4; 5.8.2] "…the FAA should be consulted so that only white strobe lights with a minimum number of flashes per minute are used." [pg 5-65]

- Comment: The Federal Aviation Administration (FAA) is responsible for determining hazards to aircraft and air traffic, and for making lighting determinations. Recommendations such as this should be left to the appropriate agency, the FAA. The FAA is currently considering revisions to its wind power project lighting guidelines, and wind project developers should comply with the FAA's guidelines. 80073-26

- Recommendation: Replace these statements with the following: "Projects must comply with applicable requirements of the FAA."

Site Construction Activities

Statement: "All electrical collector lines should be buried adjacent to roads, unless it is necessary to install surface lines to avoid further habitat disturbance." [2.2.3.2.3] 80073-27

- Comment: If the environmental impacts associated with an above-ground electrical collector line (including avian impacts) are not expected to be significant, then above-ground lines should be a viable option. Additionally, it is sometimes not practical to bury the lines adjacent to roads. For example, if the road is on one side of a string of turbines and the transformers are located on the other side (to minimize the risk of a vehicle hitting a transformer, which itself could have adverse environmental impacts), then it may be more practical to bury the electrical collector line on the transformer side of the turbine string instead of next to the road. 80073-27 (cont.)

- Recommendation: This comment should be deleted or modified to reflect the comment above.

Statement: "The footprints of substations are expected to be 1 acre (0.4 ha) or less in size..." [3.1.2.4]

- Comment: Expected substation size may be more than 2 acres. 80073-28

- Recommendation: Change this phrase to read "to be 5 acres or less in size."

Statement: "Because most towers are equipped with lifting devices of sufficient capacity to lower or raise individual drivetrain components, a crane should not be needed for such component replacements." [3.1.3]

- Comment: Many drivetrain components will require a separate crane. 80073-29

- Recommendation: Delete this sentence.

Regulatory Requirements

Statement: "This section identifies the major laws, regulations, executive orders (E.O.s), compliance instruments, and policies that may impose environmental protection and compliance requirements on site monitoring and testing, construction, operation, and decommissioning phases of a wind energy project on BLM-administered land." [3.2]

- Comment: It would be beneficial to affirm that not all of the regulations listed apply to all wind projects. 80073-30

- Recommendation: Add the following sentence after this statement: "This list of laws and regulations may not apply to every wind project."

Statement: "Appendix E lists the relevant federal and state statutory authorities that establish permits, approvals, or consultations with which a wind energy project must comply." [3.2]

- Comment: See previous comment.
- Recommendation: "Appendix E lists the relevant federal and state statutory authorities that establish permits, approvals, or consultations with which a wind energy project must comply, *where applicable*." [Emphasis indicates additional language proposed]

80073-31

Statement: "Also, the construction of a wind energy project may be required to consider impacts on local populations, including E.O. 12898, 'Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations' (U.S. President 1994), and E.O. 13045, "Protection of Children from Environmental Health Risks and Safety Risks" (U.S. President 1997). Certain states may have specific requirements with regard to nuisances, including Arizona (Environmental Nuisances [Arizona Revised Statutes (ARS) 49-141 et seq.] and Light Pollution [ARS 49-1101 et seq.]) and New Mexico (Night Sky Protection Act [74-12-1 New Mexico Statutes Annotated (NMSA) 1978 et seq.])." [3.2]

- Comment: These E.O.s and statutes may not apply to wind projects. In any event, it ought to be recognized that (1) wind projects must be sited where there is an adequate wind resource and transmission access, which is often in rural areas that may have a significant minority population and low-income population, (2) wind projects pose few if any environmental health risks or safety risks to the local community, and (3) wind projects provide significant economic benefits to the community in the form of jobs, tax revenues for public schools and hospitals, and additional income for landowners which often include small farmers and ranchers.
- Recommendation: Modify this statement to reflect the comment above.

80070-32

Statement: "*Land use.* Depending on the location of a proposed wind energy project, special land use determinations may need to be made, particularly if the project is to be sited in or would impact special or protected areas." [3.2]

- Comment: The term "special" used in this section is unclear.
- Recommendation: Add a definition of "special" as used in this context, require the BLM Field Office to identify "special" areas in local land use plans, or delete this statement.

80073-33

Statement: "*Floodplains and wetlands.* While turbines would not be located in wetland areas or adjacent to other water bodies…" [3.2]

- Comment: Turbines located in wetland areas or adjacent to other water bodies may be subject to separate legal requirements.
- Recommendation: Replace this statement with the following: "Project facilities may sometimes be located in wetland areas or adjacent to other water bodies, and these facilities should comply with statutory requirements and associated regulations established by the Army Corps of Engineers if applicable."

80073-34

Voltage Flicker [3.3.7]

- Comment: Voltage flicker or stability is not an environmental issue.
- Recommendation: This section should be deleted.

80073-35

Water

Statement: "Culverts of adequate size to accommodate the runoff of a 25- and 100- year storm for temporary and permanent roads, respectively, should be used when constructing stream or wash crossings." [5.3.5]

- Comment: The requirement to design stream and wash crossings for 25- and 100-year storms is appropriate for urban areas, not the rural settings where wind projects are generally located.
- Recommendation: Replace this statement with the following: "When constructing stream or wash crossings, culverts or water conveyances for temporary and permanent roads should be designed to comply with county standards, or, if there are no county standards, to accommodate the runoff of a 10-year storm."

80073-36

Electromagnetic Fields (EMF)

Statement: "A health and safety program should be developed to protect workers during construction, operation, and decommissioning of a wind energy project. The program should identify all applicable federal and state occupational safety standards, establish safe work practices for each task (e.g., requirements for personal protective equipment and safety harnesses; OSHA standard practices for safe use of explosives and blasting agents; measures for reducing occupational EMF exposures), …" [5.8.1]

80073-37

Statement: "Measures should be considered to reduce occupational EMF exposures, such as backing the generator with iron to block EMF, shutting down the generator when working in the vicinity, and/or limiting exposure time while the generator is running (Robichaud 2004)." [5.8.1]

Statement: "These hazards include risks associated with major construction sites, rare tower failures, human-caused fire, EMF exposure, aviation safety interference, EMI, low-frequency sound, and shadow flicker." [5.8.2]

- Comment: Numerous studies have shown that EMF does not present a significant public health risk, even to workers who experience relatively high exposure levels. Further, most government agencies that have studied this issue have not proposed safety standards for cancer, leukemia or similar health risks allegedly attributable to worker exposure to EMF. For example, the National Institute for Occupational Safety and Health (NIOSH) and other government agencies do not consider EMF a proven health hazard (see http://www.cdc.gov/niosh/emf2.html). Examples of the research results are available at http://www.powerlinefacts.com/Steering%20Committee%20Informaton%20Hearing/Expert%20Testimony/Valberg%20testimony.htm

- Recommendation: Modify these sections to reflect the comment above.

80073-37 (cont.)

Electromagnetic Interference (EMI)

Statement: "These hazards include risks associated with major construction sites, rare tower failures, human-caused fire, EMF exposure, aviation safety interference, EMI, low-frequency sound, and shadow flicker." [5.8.2]

- Comment: No specific standards exist for wind turbine generators with regard to EMI, though the standards contained in FCC Rules, Title 47, Chapter 1, Part 15 establish criteria for emissions from many electronic devices. These rules establish that devices may not produce "Harmful Interference", defined as "Any emission, radiation or induction that endangers the functioning of a radio navigation service or other safety services or seriously degrades, obstructs or repeatedly interrupts a radio communications service operating in accordance with this chapter". This language should state that EMI levels from wind projects should conform to the federal standards contained in FCC Rules, Title 47, Chapter 1, Part 15.

- Recommendation: Require that wind projects comply with FCC rules (defined above), if applicable.

80073-38

Agency Consultation and Coordination (Section 7.4)

- Comment: This section of the PEIS indicates that BLM will be consulting with the U.S. Fish & Wildlife Service (USFWS) in accordance with the requirements of Section 7 of the ESA.

- Recommendation: Assuming that the BLM receives a programmatic Biological Opinion (BO), the BO should contain language allowing site-specific BOs to tier off of the programmatic BO and allow for an expedited consultation schedule with flexibility in the amount of data needed. The BLM has requested the option for such expedited Section 7 consultation in other programmatic consultations with the USFWS. 80073-39

Responses for Document 80073

80073-001: The level of environmental assessment, including whether an EA or an EIS is required for individual wind energy projects, will be determined at the Field Office level (see Section 2.2.3.1, Proposed Policies, 9th bullet). In certain instances, it may be determined that a tiered EA is appropriate in lieu of an EIS. No text change has been made to the document in response to your comment.

80073-002: As required by the Wind Energy Development Program proposed policies and BMPs, any wind energy development project proposed for BLM-administered lands must consider species of concern that are listed not only under the Endangered Species Act (ESA), but also those listed as sensitive by BLM and those listed as threatened, endangered, sensitive (or other comparable designations) by state agencies. The suggested revision would apply only to species listed under the ESA. No text change has been made to the document in response to your comment.

80073-003: The text has been revised to clarify that the monitoring program requirements will be established at the project level. The phrase "to the fullest extent possible throughout the life of the project" has been deleted.

80073-004: This BMP requirement has been deleted. This guidance has been retained as a suggested mitigation measure in Section 5.9.5.2.2.

80073-005: The corresponding BMP in Section 2.2.3.2.2 and the mitigation measure in Section 5.9.5.2.2 have been modified to include the condition "if site studies show that placing turbines there would pose a significant risk to raptors." Determinations of the significance of the potential impacts will be made at the site- specific level.

80073-006: The suggested revision would apply only to species listed under the ESA. The text, as written, applies to not only ESA-listed species, but also BLM-designated sensitive species and species listed by individual states (see definition for special status species in Chapter 10, Glossary). No text change has been made to the document in response to your comment.

80073-007: The identification of specific areas for exclusion from wind energy development or from the placement of facility structures, such as utility corridors and access roads, will be determined at the project level as part of the site- specific analyses or through local land use planning efforts with opportunities for full public involvement. As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, including the identification of exclusion areas, will be conducted for any proposed project on BLM-administered lands. The scope and approach for site-specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this

process, the BLM will develop project-specific siting stipulations for incorporation into the POD. No text change has been made to the document in response to your comment.

80073-008: The text has been revised to require that facilities be designed to discourage their use as perching or nesting substrates by birds. A similar revision has been made for the BMP that incorporates this mitigation measure.

80073-009: The corresponding mitigation measure in Section 5.9.5.2.2 has been modified to include the condition "if site studies show that they would pose a high risk to species of concern." Determinations of the magnitude of the risk or significance of the potential impacts will be made at the site-specific level.

80073-010: The corresponding mitigation measure in Section 5.9.5.3.2 has been modified to include the condition "if site studies show that proposed facilities would pose a significant risk to avian or bat species of concern." Determinations of the significance of the potential impacts will be made at the site-specific level.

80073-011: The language is not specific to the Altamont Pass site. The adoption of such a mitigation measure would be appropriate at some sites and will be evaluated at the project level as part of the site-specific analyses. The mitigation measure in Section 5.9.5.4.3 has been reworded to add the phrase "to the extent local conditions will support this vegetation."

80073-012: The text has been deleted.

80073-013: Thank you for your comment. No text change has been made to the document in response to your comment.

80073-014: Section 3.3.5 has been modified to incorporate additional information, as appropriate.

80073-015: The bullet in the text is a generally accepted statement in the field of community noise. However, it is possible, depending on the specific project setting, for larger fluctuations of broadband noises to occur without objection from the community. Accordingly, a text change has been made to reflect part of comment.

80073-016: Thank you for your comment. No text change has been made to the document in response to your comment.

80073-017: The text has been revised in response to the comment.

80073-018: Design decisions will be made at a site-specific level in conjunction with stakeholder involvement and other environmental and cost-benefit

considerations. No text change has been made to the document in response to this comment.

80073-019: The suggested change has been made.

80073-020: This mitigation measure has been revised to clarify that burial of power collector lines is encouraged to the greatest extent feasible without adding to project-related habitat disturbance.

80073-021: The text referred to in the comment identifies measures deemed appropriate for project equipment associated with facility construction, operation, and decommissioning. These measures do not apply to private vehicles visiting the site, which is beyond the control of the BLM or the facility operators. The Wind Energy Development Program BMPs specify an operator-developed noxious weed and invasive species control plan. Specifics of the control plan will be developed on a site-specific basis and are beyond the scope of the PEIS. No text change has been made to the document in response to this comment.

80073-022: The delineation of the hazardous materials and wastes of concern would not be sufficiently addressed by the simple compliance statement. Although the amounts and types of hazardous materials present on the site, as well as the amounts and types of wastes expected, are relatively limited, the BLM wants to ensure that even though the hazardous material and waste issues appear insignificant, they are not treated as such. The BLM believes that providing this additional detail to its guidance beyond a simple, nonspecific performance requirement will ensure that the developer and operator give sufficient attention in the planning stages to the potential adverse impacts of hazardous materials and wastes associated with wind farm operation. No text change has been made to the document in response to this comment.

80073-023: The text has been revised, as appropriate, in response to your comment.

80073-024: The text has been revised, as appropriate, in response to your comment.

80073-025: The text has been revised, as appropriate, in response to your comment.

80073-026: It is agreed that wind farm developers and operators must identify and comply with all applicable FAA regulations and requirements; this is addressed in the 7th BMP bullet under Human Health and Safety, Section 2.2.3.2.2, Plan of Development Preparation. The decision regarding the color of lights is the jurisdiction of the FAA, although the BLM will make all relevant data available to the FAA to support its decision. The text regarding the use of white strobe lights with a minimum number of flashes per minute has been removed.

80073-027: The intent of this BMP is to encourage the burial of power collector lines to the greatest extent feasible without adding to project-related habitat disturbance. The BMP has been rewritten to clarify this.

80073-028: The text has been changed to indicate that substations may be as much as 5 acres (2 ha) in size.

80073-029: Many turbine manufacturers have incorporated component lifting capability directly into the turbine's design. However, for some turbines, separate lifting cranes may be needed. The text specifically indicates that "most" towers have sufficient installed lifting capacities to avoid the need for separate lifting equipment, implying that there may be occasions when separate lifting equipment is necessary. No text change has been made to the document in response to your comment.

80073-030: The text has been revised to clarify that all the laws and regulations discussed in Section 3.2 and listed in Appendix E may not apply to every wind project. Each project must be assessed, on the basis of its proposed activities, location, and other circumstances, against the pertinent federal and state laws and regulations to determine those that are applicable.

80073-031: The text has been revised to clarify that all the laws and regulations discussed in Section 3.2 and listed in Appendix E may not apply to every wind project. Each project must be assessed, on the basis of its proposed activities, location, and other circumstances, against the pertinent federal and state laws and regulations to determine those that are applicable.

80073-032: The text has been revised to clarify that depending on the activities, location, and circumstances, the construction of a wind energy project may be required to consider impacts on location populations, including the Executive Orders and state nuisances statutes.

80073-033: The text has been revised or clarified in response to your comment.

80073-034: Thank you for your comment. The text in Section 3.2 has been changed to indicate that if project facilities are located in wetland areas or adjacent to water bodies, they would be subject to all applicable statutory requirements and associated regulations. As stated in the Wind Energy Development Program proposed policies and BMPs, the design of all wind energy projects proposed for BLM-administered lands will be required to minimize or avoid such placements, especially if these areas are determined to represent sensitive or important habitats. Such determinations will be made on a site-specific, project-by-project basis.

80073-035: Section 3.3.7, Voltage Flicker, has been deleted from the PEIS.

80073-036: The text has been revised or clarified in response to your comment.

80073-037: Thank you for your comment. No text change has been made to the document in response to your comment.

80073-038: The text has been revised, as appropriate, in response to your comment.

80073-039: As specified in the Wind Energy Development Program proposed policies, if federal listed species are present in the project vicinity, the BLM will consult with the U.S. Fish and Wildlife Service (USFWS) as required by Section 7 of the Endangered Species Act of 1973 (ESA). The specific consultation requirements will be determined on a project-by-project basis.