

**COMMENTS AND RESPONSES**



Document 00001

WYOMING  
GAME AND FISH DEPARTMENT

Dave Freudenthal, Governor



Terry Cleveland, Director

"Conserving Wildlife - Serving People"

October 1, 2004

WER 10708  
Bureau of Land Management  
Washington D.C.  
Draft Programmatic Environmental Impact  
Statement  
Wind Energy Development on BLM-Administered  
Lands in the Western United States

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

Dear Sir or Madam:

The staff of the Wyoming Game and Fish Department has reviewed the *Draft Programmatic EIS on Wind Energy Development on BLM-administered lands in the Western United States*. We offer the following comments.

The document is very thorough and well written, and the information provided is comprehensive and very helpful in understanding the scope of wind energy technology, implementation, and issues/solutions.

We concur with the preferred alternative, and agree that implementation of the described analyses, monitoring, mitigation, adaptive management, and best management practices will result in an effective program with minimal impacts to other resources. To help assure that result, we recommend that, in Chapter 2, Section 2.2.3.2. (proposed BMPs), the language be such that the BMPs are more than suggestions. Though the BMPs "would be adopted as required elements of project-specific PODs and/or as ROW grant stipulations" (page 2-9), the specific actions within the BMPs themselves do not appear to be required.

For example, under Section 2.2.3.2.2, examples of wording follow: "BLM and operators *should* contact appropriate agencies...", "projects *should* be planned to minimize or mitigation impacts to wildlife habitat...", "operators *should* evaluate avian and bat use of the project area...". We recommend the *should* be changed to *shall* in all BMPs, so that the requirement cannot be challenged and the intent of the programmatic guidance is clear. Inserting the imperative in the language would allow this programmatic document to adequately guide project

1-1

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actions, and flexibility for specifically how to implement the requirement would still be available at the project level. For instance, bird and bat use will obviously have to be a component of every plan, but the extent of data requirements and reactions to that data would still be determined on a case-by-case basis.

1-1  
(cont.)

In Chapter 5, Section 5.9.5.2.2, (mitigating site/wildlife interactions during the development preparation and project design phase), an additional specific measure should be added to address the effects of noise on sage grouse. Sage grouse has been petitioned as an endangered species, and recent science has indicated that noise can be an impact to sage grouse during breeding. Since noise is not expected to be an issue other than immediately adjacent to turbines or overhead power lines, we recommend adding that siting of turbines or overhead power lines avoid sage grouse leks for an adequate distance to negate potential noise impacts. Our Department’s standard stipulation for lek protection is No Surface Occupancy or disturbance of sage grouse leks within ¼ mile of the perimeter of the lek. Since this recommended distance includes the distances where noise is expected to a potential issue, we recommend our stipulation be added as a development/design requirement.

1-2

Much of the area of Wyoming with medium or high wind development potential is located in the southern part of the state along the checkerboard area. The checkerboard is a huge area across Wyoming where every second section (640 acres) was granted to the Union Pacific Railroad over a century ago, and is private land. The majority of the remaining sections are administered by BLM, and thus the BLM administers only about half of the development area. Recent wind farm developments in this area, including actual developments and those currently in planning, have avoided siting turbines on BLM lands. The practice has been for the turbines and other facilities to be on private land, with only some necessary road access being on BLM land. The wind farms are planned this way in order to avoid a full NEPA analysis. In at least one instance (the Uinta County Wind Farm), BLM did not require a NEPA analysis of the entire project, even though roads for the project were located on BLM land. Only a minor Environmental Analysis was done for the roads, and to make matters worse, our Department was not asked for input in that analysis, when we had significant wildlife resources in the project area. Other wind farms in the checkerboard that are in the planning stage are also using this approach, as indicated by our initial conversations with various wind developers.

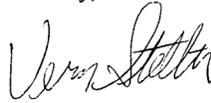
1-3

We believe that if any part of the wind project is located on BLM land, a full project NEPA analysis should be required, as addressed under both FLPMA and NEPA. The adjacent development, supported by the roads on BLM land, obviously has a cumulative effect on adjacent BLM-managed land and resources. Because the practice of avoiding NEPA has become common in Wyoming, we recommend the appropriate NEPA requirements be addressed in this document to provide adequate direction for future developers as well as for local BLM Field Offices.

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Thank you for the opportunity to comment.

Sincerely,



*BW* BILL WICHERS  
DEPUTY DIRECTOR

BW:VS:as

cc: Mary Flanderka-Governor's Planning Office  
USFWS

**Responses for Document 00001**

- 00001-001:** 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.
- 00001-002:** The U.S. Fish and Wildlife Service has completed its status review of the greater sage-grouse throughout its range and determined that the species does not warrant protection under the Endangered Species Act at this time. However, as stated in Section 2.2.3.1, Proposed Policies, in the 14th bullet, existing BLM guidance on the management of sage-grouse and sage-grouse habitat will be incorporated into the Plan of Development (POD) that is required for all wind energy projects proposed for BLM-administered lands. As required by the Wind Energy Development Program proposed policies and BMPs, species-specific analyses will be conducted for any proposed project on BLM-administered lands. The scope and approach of these species-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, design, and operation stipulations for incorporation into the POD. No text change has been made to the document in response to your comment.
- 00001-003:** The BLM implements NEPA upon receipt of a completed right-of-way application for use of BLM-administered lands by preparing either an EA or an EIS to determine the probable environmental effects of the proposed federal action to grant the right-of-way. The determination of whether to prepare an EA or an EIS and the scope of that analysis are determined at the BLM Field Office level. The proposed Wind Energy Development Program includes a policy stating that NEPA analyses will be conducted on all wind energy development projects (see Section 2.2.3.1, 9th bullet). This policy has been reworded to state that the scope of the NEPA analyses is generally limited to the proposed action on BLM-administered land. However, if access to a proposed development on adjacent non-BLM-administered lands is entirely dependent on obtaining a right-of-way across BLM-administered land, and there are no alternatives for that access, the NEPA analysis for the proposed right-of-way may need to assess the probable environmental effects from that proposed development. As with future analyses of wind energy projects on BLM-administered lands, the BLM's NEPA analyses of right-of-way access to projects on adjacent non-BLM-administered lands may tier off of this PEIS to the extent that the proposed project falls within the scope of the PEIS analyses.

Document 00002

**Valley County Board of County Commissioners**

P. O. Box 1350 / 219 North Main Street  
Cascade, Idaho 83611-1350

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*Clerk*  
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October 13, 2004

Bureau of Land Management, Wind Energy Programmatic EIS,  
Argonne National Laboratory  
EAS/900, 9700 S. Cass Ave.  
Argonne, IL 60439

RE: Wind Energy Programmatic Environmental Impact Statement

Dear Reviewer:

The Valley County Board of County Commissioners (Board) support the federal government's commitment to developing a Wind Energy Programmatic Environmental Impact Statement (PEIS) to guide future development of wind energy resources on lands administered by the Bureau of Land Management. In the materials released with the announcement of intent to prepare a PEIS, the Bureau of Land Management (BLM) has done a good job of identifying the major issues.

It is of great importance to Valley County in all rule-making and decision-making processes that the Board's of County Commissioners be invited by BLM to participate as equal partners with the BLM as is mandated in the National Environmental Policy Act (NEPA). This mandate is in addition to the BLM (s) work on a government-to-government basis with Native American Tribes, as a part of the government's Treaty and Trust responsibilities. The government-to-government relationship was formally recognized by the federal government on November 6, 2000, with Executive Order

2-1

13175. At the very least, the National Association of Counties and the Idaho Association of Counties and its counterparts in other states should be invited to participate as cooperating agencies.

2-1  
(cont.)

The Board encourages BLM to undertake a comprehensive PEIS for natural gas, oil and coal exploration and development on federally administered lands in the Rocky Mountain States. The impacts from fossil fuel development and power plants are perceived to be greater than those associated with wind, making a compelling case for a broader PEIS. The National Energy Plan's emphasis on natural gas production in the Rockies establishes an urgent need for a PEIS analyzing which combination of energy sources makes the most sense for the West and the nation.

2-2

Specific resources and impacts that should be considered for individual wind power projects include:

1. Wildlife and wildlife habitat
2. Plants and plant habitat
3. Avian species (especially migratory birds, raptors and bats) and important flyways and raptor concentration areas. Projects should be sited to avoid key migration routes. Design of turbines and supports should avoid creating perching opportunities for birds—columns are generally better than lattice towers in this respect.
4. Visual environment, including scenic view-sheds.
5. Avoiding the creation of noise nuisance. Decibel levels should be limited to acceptable standards and citing should be an acceptable distance from the nearest residences or recreational use areas.

2-3

Importantly, the decision must provide certainty that other public land uses, such as public-rights-of-ways that cross the public lands which are under local government jurisdiction must remain open; mining, that holds a special place in this Nation's statutory history, must remain open; and all other traditional uses of public lands including but not limited to: grazing, hunting, fishing, recreation, and timber must continue to be protected.

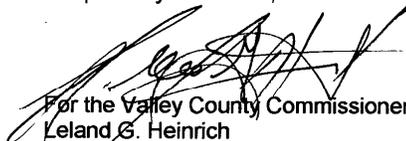
The proposed action would present the best approach for managing wind energy development on BLM-administered lands. The proposed Wind Energy Development Program is likely to result in the greatest amount of wind energy development over the

2-4

next 20 years, at the lowest potential cost to industry. Simultaneously, the proposed action would provide the most comprehensive approach for ensuring that potential adverse impacts are minimized to the greatest extent possible. And, finally, the proposed action is likely to provide the greatest economic benefits to local communities and the region as a whole. As a result, the proposed action appears to best meet the objectives of the National Energy Policy recommendations to increase renewable energy production on federally administered lands. Additionally, it would be good for Idaho to have this project completed at Argonne West in Idaho Falls Idaho.

2-4  
(cont.)

Respectfully submitted,



For the Valley County Commissioners,  
Leland G. Heinrich  
Valley County Clerk

### **Responses for Document 00002**

- 00002-001:** The BLM's proposed policy for consultation with federal, state, and local agencies, described at Section 2.2.3.1, Proposed Policies, 3rd bullet, provides the opportunity for site-specific consultations between BLM Field Offices and county governments. The subject of cooperating agency status should be discussed on a case-by-case basis at this level.
- 00002-002:** Your comment addresses issues that are beyond the scope of the PEIS, the mission and responsibilities of the BLM, and/or the defined programmatic scope of the proposed Wind Energy Development Program.
- 00002-003:** Proposed BMPs presented in Section 2.2.3.2 address each of these potential impact areas. The BMPs have been reworded in the Final PEIS to indicate that they are required, not suggested, elements of any wind energy development activity on BLM-administered land.
- 00002-004:** Thank you for your comment. We appreciate your input and participation in the public review process.

Document 00003

*John W. France*

P.O. Box 656  
Rawlins, WY 82301  
1-307-324-4377

October 16, 2004

BLM Wind Energy Programatic EIS,  
Argonne National Laboratory  
EAD/906  
9700 Cass Ave.,  
Argonne, IL 60439

Gentlemen,

I read with great interest about the wind energy projects as written up in the Casper(Wyo) Star Tribune recently and would like to add my comments.

I have been a strong supporter of wind energy for many years and it is very gratifying to see the wind finally being used for something. It blows here a lot and the energy should certainly be used for a constructive purpose.

I am very famaliar with the project at Arlington Wyoming which has over two hundred wind turbines, they operate quietly, do not create pollution, are not unsightly, and their source of energy is free . I definitely feel you cannot beat this for a source of electricity.

Sincerely

*John W. France*

3-1

**Response for Document 00003**

**00003-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

Document 00004



IDAHO DEPARTMENT OF FISH AND GAME  
600 S Walnut / PO Box 25  
Boise, Idaho 83707-0025

Dirk Kempthorne / Governor  
Steven M. Huffaker / Director

October 26, 2004

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

To Whom it May Concern,

The Idaho Department of Fish and Game has reviewed the BLM programmatic wind power DPEIS.

The DPEIS has three alternatives, no action, limited wind energy development that would entail only the proposed Cottoral project in Idaho, and implement a comprehensive wind energy development that might include numerous wind energy projects in Idaho and other western states.

The latter proposes to implement a comprehensive program to develop wind energy including establishing policies, minimum mitigation measures, programmatic policies, BMPs, wind development exclusion areas, and amendment of land use plans to address wind energy development. Those land use plans proposed for amendment by the DPEIS in Idaho include the Cascade, Challis, Jarbidge, Kuna, Lemhi, Owyhee, and Twin Falls plans. The wind energy development alternative proposes policies which would identify lands on which wind energy would not be allowed, establish consultation and involvement requirements for public and agencies, incorporate adaptive management strategies, and BMPs that would establish environmentally sound and economically feasible mechanisms to protect and enhance natural and cultural resources. Potential impacts to wildlife would be reduced under this alternative through use of programmatic BMPs and by requirement of site and species specific concerns being addressed at the project level.

The Department recognizes the development of wind energy as a viable alternative to other, more environmentally deleterious, forms of power. However, wind generation is not benign, particularly to wildlife. We strive to reduce the impacts of all forms of power generation to fish and wildlife. To do this, it is most important that analysis and decisions regarding wind energy development and its potential impacts should be made and determined at the local level. It is our experience that some of the ideas of the programmatic wind power EIS such as defining site and species specific concerns have always been best addressed at the local and site-specific level. Minimum mitigation measures, BMP, and exclusion areas should be included in the programmatic EIS so long as they provide meaningful direction to local decisions.

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The Department is also interested in not only using wind power to diversify power generation but in also using wind energy to defray, replace, or mitigate power generated by methods that inhibit or harm fish and wildlife resources. For example, wind power project development might help ameliorate the regulation and management of the Columbia River hydropower system in the Pacific Northwest to aid in the recovery of federally listed salmon and steelhead. We would recommend that the BLM's final EIS require wind power generated by projects developed and implemented on BLM lands be used, to the greatest extent possible, to relieve and aid federally listed species whose recovery may be limited or affected by other federal power production facilities, projects, or operations.

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 (cont.)

We would also like to provide the following comments on the DPEIS.

We recommend that development of transmission lines in relation to any wind power production project on BLM lands be viewed as a connected action of any wind generation project and that the associated development and impacts of these transmission lines require the same analysis of effects, limits, and mitigation as any and all wind production projects covered under this DPEIS.

4-2

We recommend all the Idaho Land Use plans amended by the DPEIS show wind energy development will be restricted from wildlife habitat where adverse effects cannot be mitigated and that all programmatic policies and BMPs within the final EIS be adopted as minimum policies and BMPs for these Land Use plans.

4-3

We recommend that the policy stating wind projects "will be developed in a manner that will not prevent other land uses..." be restated as "wind energy development will be addressed relative to its singular and cumulative effects and wind energy projects will be gauged and modified as necessary to fully mitigate, minimize, or eliminate the environmental and cumulative effects without regard to maintaining existing or traditional land uses except to provide either no change or an overall net benefit to the resources affected by wind power development."

4-4

We recommend that the DPEIS policy be restated to direct BLM to consult with appropriate agencies as early as possible rather than wind power entities or project proponents consulting with appropriate agencies. This is based on the presumption that a BLM plan amendment has only authority over BLM and its actions and it cannot direct an outside entity by its policy or plan. This same policy should also add "mitigation" to the list of issues and concerns to be identified and addressed.

4-5

We recommend the DPEIS policy stating, "The BLM will incorporate management goals and objectives specific to habitat conservation for sage grouse..." be restated to direct BLM to "implement strategies to achieve management goals and objectives specific to habitat conservation for sage grouse...". This policy needs to imply that the BLM will initiate and be responsible for actions through wind power projects to achieve management goals and objectives for sage grouse and other shrub steppe obligate species.

4-6

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We recommend the policy stating “The BLM’s proposed Wind Energy Development program would incorporate adaptive management strategies to ensure that potential adverse impacts of wind energy.....” be restated to require BLM to incorporate adaptive management strategies ensuring potential adverse and cumulative impacts of wind energy development and BLM land use are monitored and mitigated at the appropriate scale and that impacts are minimized throughout the term of the project. This statement should also require that monitoring and mitigation be done at the appropriate ecological scale of effect or impact and that BLM will coordinate monitoring, programmatic policies, and project-specific standards, procedures, and stipulations across local, state, and national levels and agencies to identify environmental baselines and improve BMPs, mitigation, operating procedures, and stipulations based on monitoring and adaptive management throughout the terms of all BLM wind projects.

4-7

As currently stated in the DPEIS, many of the proposed BMPs are passive and imply little, if any, action will be taken by BLM. We recommend that the language in most, if not all, the statements be changed to clearly demonstrate BLM's responsibility for applying these BMPs. One change would be to replace the word “should” found in many of the BMPs with the term “shall.” If this language is not changed, then the BMPs in the DPEIS should be identified as guidelines rather than BMPs. If this is the case, the Department finds these guidelines inadequate for the conservation of fish and wildlife in relation to wind power development and the programmatic EIS insufficient.

4-8

Under “Wildlife and Ecological Resources” BMPs: these are stated in terms of the “operators” rather than the BLM. It is not clear to us if BMPs adopted by the BLM within a final EIS can direct and hold accountable outside entities to the decision of the EIS. Wind power projects are not licensed or regulated under FERC and, therefore, have no development or operational specifications requirements other than those specified by a BLM management decision. Therefore we suggest that the BMPs within the final EIS are the BLM’s responsibility and as such, should direct the BLM to be responsible for ensuring they are implemented and that they are effective. We recommend “operators” be changed to “BLM” or that these be stated neutrally without identifying how or who will do them.

4-9

We recommend the addition of other BMPs within the final EIS. They include:

“Cumulative effects and impacts will be evaluated for each project with consideration of scale of effects, ongoing land use, adjacent non-BLM land use, and associated or connected actions such as transmission line development.”

“Off-site, adjacent, and on-site mitigation will be implemented where necessary to minimize or eliminate the site specific, surrounding, regional, and/or ecological effects of wind development projects.”

4-10

Both these new BMPs are important because the effects of a wind power development project will not only be site specific but may impact wildlife at varying ecological scales. This might include abandonment of important habitats near wind projects, metapopulation fragmentation,

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and effects to migrating species at regional and larger ecological scales. Many of these effects will be unknown at the time of the project but appropriate monitoring will help determine to what extent these effects manifest themselves as well as whether or not wildlife habituate to the initial project impacts. In either case, implementation of these BMPs will allow design of appropriate and adaptable mitigation of project effects or benefits as informed by monitoring.

4-10  
(cont.)

We recommend that the terms “to the extent feasible” or “to the extent practicable” be deleted wherever they appear throughout the document. They are vague and their implementation will vary with individual viewpoints. As such they do not belong in the DPEIS or in BMP statements.

4-11

We recommend there be a section of “Public Recreation” BMPs. This section should address how public recreation and access will be handled relative to wind power development.

4-12

Similarly, we recommend there be BMP sections on “Noxious Weeds” and “Fire Management” relative to wind power development.

4-13

Thank you for the opportunity to comment.

Sincerely,



Tracey Trent  
Chief  
Natural Resources Policy Bureau  
Idaho Department of Fish and Game

### Responses for Document 00004

**00004-001:** We agree with the comment in the first paragraph. Site-specific analyses are required by the Wind Energy Development Program proposed policies and BMPs (Section 2.2.3.1, Proposed Policies, and Section 2.2.3.2, Proposed BMPs). In addition to the BMPs, Chapter 5, Potential Impacts of Wind Energy Development and Analysis of Mitigation Measures, includes measures that could be implemented to minimize or mitigate environmental impacts. The proposed policy in the first bullet in Section 2.2.3.1, Proposed Policies, identifies lands excluded from wind energy development.

The BLM has no authority to dictate where power generated by wind energy development is used, as suggested in the second paragraph.

**00004-002:** Section 6.4.3 acknowledges that wind energy development on BLM-administered lands may require the construction of new transmission lines. Such construction is considered to be a separate but related activity and will require interagency cooperation and multidisciplinary environmental reviews. The designation of new transmission corridors on BLM-administered lands will occur as a result of interagency consultations, not as a result of a unilateral decision by the BLM. Any such designations would be evaluated through either regional or local land use planning efforts, with opportunities for full public involvement. The potential impacts of transmission system interconnects or expansions that would be required by an individual wind energy project on BLM-administered lands will be assessed as part of the site-specific analyses, with input from other federal, state, and local agencies, and interested stakeholders.

**00004-003:** As shown in Appendix C, Proposed Land Use Plan Amendments under the Wind Energy Development Programmatic Environmental Impact Statement, Table C-1, Proposed Changes and Rationales for Land Use Plan Amendments, the proposed amendments for the Idaho land use plans will incorporate the programmatic policies and BMPs. The policies and BMPs have 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. Regarding restricting development where adverse impacts to wildlife habitat could not be mitigated, the 1st bullet under Section 2.2.3.1, Proposed Policies, provides for that restriction.

**00004-004:** No text change has been made to the document in response to your comment. The referenced policy is specifically intended to ensure that wind energy development on BLM-administered land will not prevent other land uses. Other proposed policies and BMPs address the additional issues raised in this comment regarding cumulative effects, monitoring programs, and adaptive management.

- 00004-005:** The BLM is responsible for establishing policy requiring consultation; however, it is appropriate for the applicant to initiate discussions with appropriate agencies prior to submitting an application for wind energy development to the BLM.
- 00004-006:** As written, the policy establishes a requirement to incorporate management goals and objectives specific to habitat conservation for species of concern, including sage-grouse and other shrub steppe obligate species. Other proposed policies and BMPs establish requirements ensuring that site-specific and species-specific analyses will be conducted for any proposed project on BLM-administered lands 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, including stipulations specific to sage-grouse and other species of concern. Species-specific analyses are beyond the scope of the PEIS. No text change has been made to the document in response to your comment.
- 00004-007:** The concerns addressed in the suggested revision are addressed in other proposed policies and BMPs in a fashion that reflects the commentor's concerns. No text change has been made to the document in response to your comment.
- 00004-008:** 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.
- 00004-009:** The BLM is responsible for setting policy. The operator, not the BLM, is responsible for the application process and for developing the Plan of Development (POD). The operator's application to the BLM must adequately reflect the BLM's proposed policies and the BMPs (see Section 2.2.3.1, Proposed Policies, and Section 2.2.3.2, Proposed BMPs) for the development process to move forward. No text change has been made to the document in response to your comment.
- 00004-010:** First recommendation. A new BMP has been inserted in Section 2.2.3.1, Proposed Policies, to ensure that site-specific NEPA analyses will identify and assess any cumulative impacts that are beyond the scope of the cumulative impacts addressed in the PEIS.
- Second recommendation. As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, including the incorporation of adaptive management strategies and monitoring programs (see Section 2.2.3.1, Proposed Policies, last bullet, and Section 2.2.3.2.2, Plan of Development Preparation, General, 7th bullet) will be conducted for any proposed project on BLM-administered lands. The application of adaptive

management strategies will ensure that programmatic policies and BMPs will be revised as new data regarding the impacts of wind power projects become available. The source for a significant portion of the new data is likely to be the required site-specific monitoring programs that will evaluate environmental conditions at a site through all phases of development. A key requirement for the site-specific monitoring programs is the requirement that monitoring observations and additional identified mitigation measures be incorporated into standard operating procedures and project-specific BMPs.

- 00004-011:** Where appropriate, the text has been modified.
- 00004-012:** As stated in Section 5.10.5, wind energy projects should be planned to mitigate or minimize impacts to other land uses. This would include recreation. The scope and approach for site-specific analyses for handling public recreation and access will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and stakeholders.
- 00004-013:** The Wind Energy Development Program includes BMPs specific to noxious weeds and fire management (see Section 2.2.3.2.2, Plan of Development Preparation, Noxious Weeds and Pesticides and Human Health and Safety, respectively). All wind energy projects proposed for BLM-administered lands will be required to develop a noxious weed and invasive species control plan, and to develop a fire management strategy to minimize the potential for a human-caused fire. These plans will be applicable to the construction, operation, and decommissioning phases of the proposed project. The specific nature of these plans and strategies 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. No text change has been made to the document in response to your comment.

**Document 00005**

TO: BLM Wind Energy Programmatic EIS

FROM: William H. Everett  
5420 South Oak Street  
Casper, Wyoming 82601-6432

SUBJECT: Draft Environmental Impact Statement on Wind Energy  
Development

DATE: November 11, 2004

Gentlemen:

I have never before submitted any comments on any subject to the Bureau of Land Management, other than documents submitted by me on behalf of clients when I was still actively practicing law. I am, however, very concerned with the potential adverse impacts of using windmills for power generation.

When I first moved to Casper, Wyoming, in 1940, my father was in the habit of taking his family on Sunday excursions to view this state. I can recall being particularly struck by the Salt Creek oil field, which, at that time, covered thousands of acres in northern Natrona County. The field had been drilled on what we now call "40-acre spacing". Each well had its own wooden derrick, which included a large walking beam to raise and lower the rods which pumped fluid from the reservoir. Everything in sight was black from spilled oil. There was not a sage bush, blade of grass, antelope, deer or rabbit in sight anywhere. There was no grazing livestock. The wells were powered by horizontal surface rods emanating from many central pump houses which were powered by engines fueled with casinghead gas; the engines could be heard for 8-10 miles in every direction. It was all very much like pictures we see today of the (in)famous East Texas Oil Field.

Today there are no derricks. There are no casinghead gas engines or surface pumping rods. The only way you can tell you are in an oil field is by the movement of pump arms over producing wells; those pumps, and most of the production equipment, are painted in "camo" colors to match the landscape. The ground is covered with sagebrush, grass and cactus and is indistinguishable from all the surrounding undisturbed prairie. There are antelope, mule deer and rabbits in great abundance. From two miles away the area appears like it had never been touched by human development.

When I first began my law practice in Casper in the late 1960's, the hunt for uranium in Wyoming was in full swing. There were several large open pit mines opened which produced for many

5-1

years. There were huge mounds of overburden deposited next to those mines. Today, there is limited (if any; I am not conversant with this industry) production of uranium here. If you tour the areas which were once mined, it is impossible to tell that there was ever a single shovel dug into the ground. All the overburden has been replaced, the ground sculpted to match the surrounding undisturbed prairie, and grass seeded on the entirety. There are run-off reservoirs which appear to be entirely natural (not "gully plugs"). Once the sagebrush repopulates all of these areas, it will be impossible to tell there were ever any open pits.

Much the same can be said about the open pit coal mines here, although most of them are still producing, but the mine owners are aware of their responsibility to reclaim and are doing so as portions of their pits are completed.

The transformation I have described is the result of many years of cooperative improvement among the producers, the Wyoming Oil and Gas Conservation Commission and the BLM. The stringent requirements laid down by the federal Environmental Protection Agency and the state Department of Environmental Quality have been met at great expense to both the producers involved (through their shareholders, partners, etc.), and the State of Wyoming and its affected counties (through their taxpayers).

When I say "stringent requirements", that is really an understatement. I am mindful of the attempts by a Casper energy producer to open a trona mine in Sweetwater County. The environmental compliance consultant for that effort is a friend of mine. He told me in detail what the requirements were, including a "view easement" compliance, road impact compliance, and other visibility and emission requirements which would not only have been very difficult to meet, but also very expensive. The mine was never opened, even though the producer had the required leases.

I used to fly around the state in my own airplane. From the air, it was difficult, if not impossible, to see even small towns, entire oil fields and mine heads. Irrigated acreage was easy to spot, as were coal-fired power plants and large antenna arrays (all of which can be seen at great distances on the ground). I can remember one day when I flew over Seminoe Reservoir and turned east toward Laramie Peak. I could see the stack emission from the power plant northeast of Wheatland and, to my great surprise and consternation, 30 or 40 wind turbines which I had never seen before and had to have been at least 50 miles east of my position.

The irrigated acreage is small in Wyoming and is a landowner

5-1  
(cont.)

right which is time-honored and necessary in the state's agriculture business. I assume that the coal-fired power plants are grandfathered so far as everything except emission controls are concerned, as they have been here for many years. Antenna arrays are dangerous and unsightly, but are also probably grandfathered. Wind farms, however, are new to this state.

I have driven through other parts of the U.S. where wind power is more developed and, quite frankly, large concentrations of windmills are the ugliest, most unearthly sight I can imagine. When we choke off local investment, such as the trona mine I outlined above, through insistence on "view easements" and other minutia, I do not understand the necessity for permitting large wind farms which have no such requirements imposed upon them, and which can never be made to blend into the general view. They make a mockery of all the efforts expended over the years to minimize environmental impact in this State.

If I thought wind-generated electricity held out any hope of contributing substantially to the total amount of electrical power we need to generate, I might have a more tolerant attitude. My understanding, however, is that the most that wind-generated electricity can contribute to our overall energy consumption in the next 50 years is, at most, 3%, which strikes me as totally insignificant when you consider the blight of huge wind farms. I am not by nature an environmentalist, but I object strongly to the introduction and use of wind farms in Wyoming, particularly, or wherever they may be located. If we are going to allow them, then we must relax the stringent standards on our other electrical generating technologies in order to create a level playing field. In particular, whatever happened to nuclear power generation? Where are all the solar panels? Who is going to bear the costs of delivering this power to other parts of the country?

Incidentally, one of the largest complaints voiced by both landowners and environmentalists when it comes to the production of coalbed methane gas in the Powder River Basin is the many surface lease roads required to service the wells. Having flown over both (a) large areas of methane gas development and (b) wind farms, I can tell you that the surface road damage from wind farming is far greater than that associated with coalbed methane.

My message is: Please do not permit further development of wind farms in this part of the country. Try the areas off Long Island and Cape Cod which are ideally suited to this form of energy production.

  
William H. Everett

5-1  
(cont.)

**Response for Document 00005**

**00005-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

Document 00006

Gretchen B. Walsh  
1374 Lupo Lane  
Gardnerville, NV 89410

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

October 28, 2004

Dear Manager:

I wish to contribute to the public review of the proposed leasing of BLM lands to private companies for generation of wind energy. In principle, I encourage such a productive use of our public lands. And I recognize the need for the production of electricity just as I see the need for oil refineries and steel mills. However, the location of such installations requires extreme care because the visual pollution of wind farms can be just as environmentally degrading as airborne or waterborne toxins. We in Nevada know only too well that there is a price to be paid for what was once considered "clean" nuclear energy generation.

Each wind energy site proposed will have its own individual issues and considerations. Some communities will welcome the economic development brought by energy companies. Some communities will see little if any conflict with current land uses such as grazing or open land. And some areas, such as those near fossil fuel or geothermal installations, will already have much of the required infrastructure in place.

Other communities now dependent on tourism will consider wind installations a blight on their scenic treasures. And others will have concerns over threatened wildlife. Viewsheds near populated areas must be protected to maintain community desirability and property values. And in most cases, BLM lands at urban interfaces are currently being heavily used for recreational purposes (hiking, biking, horseback riding, shooting, camping, OHV use, etc.). Such existing BLM land uses must take priority before assigning any new leases. It is the local citizens who must be given the final say on any industrial installations (and wind farms are an industrial usage) on BLM land in or near their communities.

The vast open mountain ranges of the West provide ample space for wind generation power plants. Please do not allow wind farm sites that will visually pollute those special landscapes that we treasure. (These include the area

6-1

within 50 miles of any National Park or environmentally sensitive area such as Lake Tahoe, Ruby Mountains and Marshes, Mono Lake, Carson Valley, etc.) Just as we refrain from oil drilling in much of Alaska, we must refrain from exploiting and degrading the best of our windy and scenic Western mountains for energy production.

The BLM will be the arbiter between the community and the lease applicant. Please remember that the BLM is the custodian of public lands for the benefit of **all** citizens, not just those few who would seek quick profits in the latest energy fad. (Wind energy in the U.S., even when highly subsidized, currently accounts for only 1% of our total consumption. And it has been under development for well over 20 years.) Local citizen input and sensitivity to the site are critical for any future leases.

6-1  
(cont.)

Sincerely,



Gretchen B. Walsh

C: Tom Crawford, BLM Office, Carson City, NV

Photo - Tehachapi, CA Wind Installation



**Response for Document 00006**

**00006-001:** 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. Issues such as those raised in this comment related to potential impacts to visual resources, wildlife, and land use will be addressed through the site-specific analyses. Many of the proposed policies and BMPs establish requirements to ensure that impacts are mitigated to the greatest extent possible. Through the site-specific analysis process, the BLM will develop project-specific stipulations for incorporation into the POD.

Document 00007

Nov. 20, 2004

BUREAU OF LAND MANAGEMENT  
WIND ENERGY PROGRAMMATIC EIS  
Argonne Nat'l. Laboratory/EAS  
900 S. Cass Avenue  
Argonne, IL 60439

Dear Wind Energy Proponents:

Here, in northern Nevada's Carson Valley, you will find exactly what you are looking for and what we so desperately need:

The best alternative energy source, which is non-polluting.

You have the land here to make this possible:

BLM owns the greater portion of property in our state.

We have the wind;

Our Minden-Tahoe airport ranks second in the world for ideal glider plane flying conditions.

Our whole country has the need:

Period.

Sincerely,

George and Diane Pezzolo  
1275 Downs Drive  
Minden, NV 89423

cc: Senator Harry Reid  
Senator John Ensign  
Rep. Jim Gibbons

7-1

**Response for Document 00007**

**00007-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

Document 00008

11-20-04

Dear Sirs,

I believe that wind power  
is very good for the environment  
& mankind. We need more!  
Please continue the research.

8-1

Katie Spencer  
1692 Kantana Dr.  
Minden, Nv. 89423  
775-782-8080

**Response for Document 00008**

**00008-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

Document 00009

**Department of Energy**

Washington, DC 20585

December 3, 2004

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

Dear Mr. Brady:

The Office of Legacy Management (LM) of the Department of Energy (DOE) wishes to thank you for providing the opportunity to comment on the Bureau of Land Management's (BLM) draft Programmatic Environmental Impact Statement (PEIS) regarding your agency's national wind energy program. LM is custodian of radioactive ore-processing and mining sites with legacy wastes disposal systems requiring long-term surveillance and maintenance. Large sites with suitable land buffer zones, surrounding low-level radioactive waste disposal cells and monitoring systems, can offer safe usage for renewable energy power productions companies. We've identified several suitable wind power sites and will continue to encourage land reuse for renewable energy purposes.

We believe that the BLM PEIS will provide useful information to LM due to the fact that your PEIS is addressing similar policy and programmatic environmental impact issues in approximately the same geographical area as many of our western sites. It also provides information to us for actions that are substantially the same as those being considered by LM for use of wind energy. For example, your PEIS addresses similar programmatic environmental impact issues in approximately the same geographical areas as many of our western sites which would make this document and its information very useful for helping guide our potential future program. Several of our custodian sites suitable for wind or solar power are located adjacent to or near BLM lands in Wyoming.

Additionally, coordination with BLM is important because the National Energy Policy recommends that DOE and other Federal agencies work closely with BLM on renewable energy production. Our office has also coordinated with other DOE offices on wind energy applications including staffers with the Western Area Power Administration (WAPA) and the National Renewable Energy Laboratory (NREL) as well as with staffers with Argonne who are preparing the PEIS BLM.

9-1



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LM's land reuse initiative is in the early planning stages and we see the potential value of adopting the final PEIS in advance of any sites being returned to beneficial reuse for renewable energy power production. Please let us know how we can coordinate with BLM in final development of your PEIS.

9-1  
(cont.)



Robert Baney  
Director, Office of Property Management  
and Community Assistance

Cc Susan Starcevich, WAPA  
Donna Heimiller, NREL  
Karen Smith, Argonne  
Charles Alton, Argonne  
Eric Cohen, EH DOE  
Tracey Plessinger, LM DOE

**Response for Document 00009**

**00009-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

Document 00010

Judi Danielson  
Chair  
Idaho  
Jim Kempton  
Idaho  
Frank L. Cassidy Jr.  
"Larry"  
Washington  
Tom Karier  
Washington



Melinda S. Eden  
Vice-Chair  
Oregon  
Gene Derfler  
Oregon  
Ed Bartlett  
Montana  
John Hines  
Montana

December 2, 2004

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

Dear Sir or Madam:

The Northwest Power and Conservation Council appreciates the opportunity to submit comments on the Bureau of Land Management Draft Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States (DES 0441). The Council believes that windpower will grow to constitute a major element of the Northwest power system over the next two decades and supports implementation of the proposed wind energy development program as a means of facilitating cost-effective and environmentally sensitive development of promising wind resource areas on lands administered by the BLM. In contrast, the alternative actions considered in the DES are unlikely to support the future role of windpower envisioned by the Council.

10-1

Transmission system reinforcement, potentially including development of new corridors across BLM-administered lands may be required to support needed windpower development. BLM land use plans and specific project development plans should seek to identify and accommodate related transmission expansion

10-2

The Council requests that it receive notice concerning proposed revisions to the BLM land use plans undertaken in response to the wind energy development program for lands lying within the states of Idaho, Montana, Oregon and Washington. The Council also requests notice concerning draft Plans of Development for specific wind project proposals.

10-3

The Council again expresses its appreciation for this opportunity to comment.

Sincerely,

A handwritten signature in black ink that reads "Judi Danielson".

Judi Danielson  
Chair

851 S.W. Sixth Avenue, Suite 1100  
Portland, Oregon 97204-1348  
[www.nwccouncil.org](http://www.nwccouncil.org)

Steve Crow  
Executive Director

503-222-5161  
800-452-5161  
Fax: 503-820-2370

**Responses for Document 00010**

- 00010-001:** Thank you for your comment. We appreciate your input and participation in the public review process.
- 00010-002:** Section 6.4.3 acknowledges that wind energy development on BLM-administered lands may require the construction of new transmission lines. Such construction would constitute a separate but related activity and would require interagency cooperation and multidisciplinary environmental reviews. The designation of new transmission corridors on BLM-administered lands will occur as a result of interagency consultations, not as a result of a unilateral decision by the BLM. Any such designations would be evaluated through either regional or local land use planning efforts, with opportunities for full public involvement. The potential impacts of transmission system interconnects or expansions that would be required by an individual wind energy project on BLM-administered lands will be assessed as part of the site-specific analyses, with input from other federal, state, and local agencies, and interested stakeholders.
- 00010-003:** Stakeholders are routinely informed and invited to participate in all land use plan revisions. Proposed amendments relating to wind energy development for existing land use plans in Idaho, Oregon, Montana, and Washington are listed in Appendix C. As stated at Section 2.2.3.1, 3rd bullet, and at Section 2.2.3.2.2, General, 1st bullet, stakeholders will be contacted early in the planning process for proposed site-specific wind energy development projects. In addition, it is recommended that you contact the BLM State Offices to specifically request notification.

**Document 00011**

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

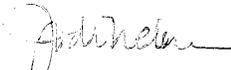
To the BLM:

I am writing to express my support of renewable energy and wind power. I wholeheartedly encourage the BLM, and all government agencies, to address issues associated with wind energy development and pursue future wind energy projects.

Currently, there is a great push to continue and increase oil and gas exploration in Wyoming. While this resource has been a boon to the state, it is not a renewable resource and it comes at the cost of environmental health. When the oil and gas are depleted, Wyoming will have also lost our wilderness and wildlife resources. Wind-power presents an opportunity to expand renewable energy in the state and minimize threats to our great outdoors.

Thank you for considering my comments on this important issue.

Sincerely,



Jodi P Nelan  
PO Box 2995  
Jackson, WY 83001

11-1

**Response for Document 00011**

**00011-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

Document 00012



KENNY C. GUINN  
*Governor*

STATE OF NEVADA  
**DEPARTMENT OF WILDLIFE**  
1100 Valley Road  
Reno, Nevada 89512  
(775) 688-1500 • Fax (775) 688-1595

TERRY R. CRAWFORTH  
*Director*

GENE WELER  
*Deputy Director*

12/8/2004

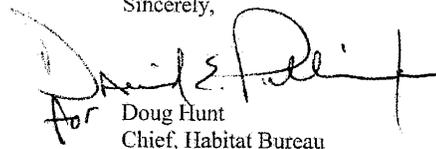
Wind Energy Programmatic EIS  
Argonne National Laboratory EAD/900  
9700 S. Cass Avenue  
Argonne, IL 60439

Attn: Wind Energy DPEIS

Dear Sir:

The Nevada Department of Wildlife (NDOW) would like to thank you for the opportunity to comment on the Draft Programmatic Environmental Impact Statement (DPEIS) related to the Bureau of Land Management's (BLM) development of a wind energy program and best management practices. As you are probably aware, nearly 50 million acres of public lands are administered by the BLM in Nevada. This represents approximately 70 percent of the states land base. These 50 million acres also provides important habitat for a variety of wildlife species including federally listed fishes and animals, many sensitive species, and a variety of highly sought after game species. NDOW has a number of concerns, issues and comments on the DPEIS. Please see the attached word file for NDOW comments.

Sincerely,

*for*   
Doug Hunt  
Chief, Habitat Bureau

cc: Gary Taylor, IAFWA  
Larry Kruckenberg, WAFWA

General Comments:

The Purpose and Need section of Chapter 1 clearly states “BLM’s proposed Wind Energy Development Program include.....(3) best management practices (BMPs) for mitigating the potential impacts of wind energy development on BLM administered lands;”. Chapter 2 goes on to define Best Management Practices as “a practice (or combination of practices) that is determined to provide the most effective, environmentally sound, and economically feasible means to manage an activity and mitigate its impacts. BMPs adapted as a part of the proposed Wind Energy Development Program would identify for the BLM, industry, and stakeholders the best set of practices for developing wind energy and insuring minimal impact to natural and cultural resources”. It is incomprehensible, based on the above definition and the obvious assumption of this document that BMPs would be implemented, that of 102 identified BMPs, 97 or over 95% are phrased with the words should be or should. There has been no commitment to requiring any of these BMPs nor is there any information presented that would provide an expectation that any of these BMPs would be implemented. Yet the analysis presented leads the reader to believe impacts will be minimized by implementation of BMPs. The development of BMPs without any requirement for their implementation (BMPs written with should or should be instead of shall or will) invalidates the analysis within this document, especially with regard to the impacts analysis and conclusions. Considering the stated purpose and need, the definition of BMPs being “a practice (or combination of practices) that is determined to provide the most effective, environmentally sound, and economically feasible means to manage an activity and mitigate its impacts”, and the process used in this document to develop these BMPs, it is recommended that the BMPs be rewritten with the words shall or will so as to provide some direction for BLM, industry, and stakeholders that would result in an understanding of what is required and provide a solid basis for the analysis within this document.

12-1

The proposed action indicates that the Programmatic Environmental Impact Statement (PEIS) will provide the necessary level of analysis to support amendment of several land use plans. It is unclear what the proposed action actually is in this case. It should be made clear if it is the action here to amend the identified land use plans through this PEIS process or that this PEIS will only provide the support for a land use plan amendment process to be conducted with an appropriate level of NEPA analysis and inputs at the local level. It is strongly recommended that the process called for here, provide for the land use plan amendments to be conducted at the local level subsequent to the finalization of this PEIS as the level of analysis in the PEIS does not provide a level of specificity to adequately assess local conditions, identify appropriate alternatives specific to a planning area and provide for an accurate depiction of environmental impacts.

12-2

Specific Comments:

1.1 Purpose and Need; Page 1-1; Paragraph 3: The developed BMPs provide no verbage indicating they would be required for implementation and therefore do not meet the stated purpose and need. (See above general comment)

12-3

<p><u>1.2 Scope of Analysis; Page 1-2; 1.2 Paragraph 4:</u> It is stated that direct and indirect impacts, including economic impacts, are evaluated but nowhere in the document are the impacts to wildlife and their habitat from disturbance, habitat loss and/or fragmentation, increased accessibility and visibility issues related to the economic values of fishing, hunting and wildlife-associated recreation discussed. Data for western states can be found in Department of Interior, U.S. Fish and Wildlife Service’s publication “National Survey of Fishing , Hunting, and Wildlife Associated Recreation”. We recommend that the document recognize this important potential economic impact.</p>	12-4
<p><u>2.2.3.1 Proposed Policies; Page 2-8; Paragraph 1:</u> Based on observed wildlife mortality and the occurrence of significant human safety issues associated with low level helicopter wildlife survey flights, it does not seem appropriate to use a categorical exclusion to fulfill NEPA requirements for monitoring and testing activities. Program policies should be developed that sufficiently address these issues with regard to ROW issuance for monitoring and testing.</p>	12-5
<p><u>2.2.3.1 Proposed Policies; Page 2-8; Paragraph 3:</u> The policy should also identify that the sage grouse management guidelines would be implemented as appropriate with specific reference to “Connelly,J.W., M.A. Schroeder, A.R. Sands, and C.E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. Wild. Soc. Bull. 28(4):967-985.” These guidelines as well as specific goals and objectives for sage grouse conservation need to also apply to ROWs for monitoring and testing facilities.</p>	12-6
<p><u>2.2.3.2.1 Site Monitoring and Testing; Page 2-10; Paragraph 1:</u> It should be identified that if new roads are required categorical exclusion would not apply.</p>	12-7
<p><u>2.2.3.2.1 Site Monitoring and Testing; Page 2-10; Paragraph 2:</u> Incorporation of design features to minimize wildlife mortalities should be included here.</p>	12-8
<p><u>3.1.1 Site Monitoring and Testing Activities; Page 3-1; Paragraph 2:</u> Monitoring and testing towers are getting significantly taller. Appropriate figures should be used here to represent heights for the foreseeable future.</p>	12-9
<p><u>4.6.2.2 Birds; Page 4-12; Paragraph 1 &amp; 4-15 Table:</u> Nevada recognizes 456 species of birds in the state. The 283 bird species identified in the text is only those birds that breed in Nevada. The total of 456 includes regular migrants and exotic or naturalized species such as chukar. Furthermore, this document needs to consider that some exotic species of birds (i.e. chukar) are state protected and must be considered in this document. Additionally, with the rapid change in global climate (i.e. average seasonal temperatures, changes in precipitation levels, etc.) some species of birds are altering their range distributions, and are either more common or less common in certain areas then they were just a few decades ago.</p>	12-10
<p><u>4.6.2.2.1 Migratory Routes; Page 4-15; Paragraph 1:</u> North American flyways generally refer to waterfowl migration routes. There exist many major raptor migration routes not depicted here. To suggest that the flyways are the major routes for all bird species is</p>	12-11

misleading. Much of the data for these are readily available through state wildlife agencies. Recommend review of Nevada Raptors, Herron et. al. 1985, for Raptor flyways in Nevada and Hawkwatch International data.	12-11 (cont.)
<u>4.6.2.2.5 Birds of Prey and Vultures; Page 4-21, Paragraph 1:</u> This document reports that Nevada has 15 species of raptors, when Nevada actually has 31 species of raptors. This should be corrected in table 4.6.2.2 also.	12-12
<u>4.6.2.2.5 Birds of Prey and Vultures; Page 4-21, Paragraph 1&amp;3:</u> The California Condor has been reported on multiple occasions in southern Nevada. There are 11 species of owl that occupy Nevada, not 9 species as this document reports. Correct in Table 4.6.2.2.	12-13
<u>4.6.2.3 Mammals; Page 4-22; Paragraph 1:</u> Bighorn sheep have been left out of this list. Because of its significant relative to wind energy project sites it should be included here. There are 3 subspecies of bighorn in Nevada. These include the desert bighorn, California bighorn and the Rocky Mountain bighorn. The desert bighorn is a BLM sensitive species.	12-14
<u>4.6.2.3 Mammals; Page 4-22; Paragraph 3:</u> The data reported in this document regarding migratory distances for bats is inadequate. There are a number of species of bats that migrate a substantial distance further then “winter roosts in Mexico to caves in the southwestern United States”, including species that migrate north into the Northwest U.S. and Canada, and species that migrate further south then Mexico.	12-15
<u>4.6.2.3 Mammals; Page 4-23, Table 4.6.2-3:</u> Nevada recognizes 23 species of bats, not 22 as this document reports. Nevada recognizes 2 species of Phyllostomidae, 18 (not 17 as this document reports) species of Vespertilionidae, 3 species of Molossidae, and no species of Mormoopidae.	12-16
<u>4.6.2.3 Mammals; Page 4-23; Paragraph 3:</u> The document reports that “Some species, such as the greater mastiff bat, may fly up to 990 ft (300 m) above the ground”. This document needs to clarify that this is not the highest height recorded for bats to fly, since at least one species within the Family Molossidae has been observed flying substantially higher.	12-17
<u>4.6.5.3 State Listed Species; Page 4-31, Table 4.6.5-4:</u> The information for Nevada reported in this table should be updated with the current species classifications. Corrections may be necessary in Table 4.6.5-3 also. See Attachment 1.	12-18
<u>Page 5-2, Table 5-1:</u> The acreages reported in this table are unreasonable, at least for Nevada. In Nevada alone, there are currently over 105,000 acres right of way (ROW) granted and issued for wind energy development to 13 different companies. There are an additional 125,429 acres of ROW applications pending action submitted by 15 companies and more applications being received. Also, it should be recognized that as wind generation is established in select areas, other areas nearby become more economically feasible to develop as additional wind generation sites, because, for example, the cost	12-19

associated with transferring the generated power off-site and into the western power grid system becomes substantially reduced.	12-19 (cont.)
<u>5.9 Ecological Resources; Page 5-35; Paragraph 4:</u> Bullet 2 states that “a decrease in plant or animal population to below self-sustaining levels” would be considered important. The decrease in a population of plants or animals to below a self-sustaining level would result in that population’s extirpation. This goes far beyond being a criteria for being considered important. This criteria should focus on measurable reductions in local populations of animals and some special status plants.	12-20
<u>5.9 Ecological Resources; Page 5-35; Paragraph 4:</u> It is imperative that a decline in all affected volant species populations also be addressed and “considered important from wind energy development [as] biological resources”. It is recommended that bullet 6 under the 4 <sup>th</sup> paragraph be rewritten to state, a decline in volant species populations;	12-21
<u>5.9.1 Site Monitoring and Testing; Page 5-37; Paragraph 1:</u> The document fails to report that non-native exotic plant species are likely to encroach upon wind energy development areas including monitoring and testing sites and will likely invade surrounding habitat outside project areas.	12-22
<u>5.9.2.2.1 Habitat Disturbance; Page 5-41; Paragraph 1:</u> There is no question that the construction of a wind energy development will impact wildlife not “may impact”.	12-23
<u>5.9.2.2.2 Introduction of Invasive Vegetation;; Page 5-42; Paragraph 1:</u> The establishment of invasive vegetation on site could also result in seed source and disbursal into adjacent off-site habitats thus impacting more than just the disturbed areas of the project.	12-24
<u>Page 5-43, Table 5.9.2-2:</u> Erosion and runoff from project construction sites may very well impact water quality over the long term and not only affect habitats short term as there are no BMPs <u>requiring</u> revegetation to reduce runoff.	12-25
<u>Page 5-43, Table 5.9.2-2:</u> Interference with behavioral activities could result in long-term impacts to several wildlife species as the disturbance during construction and the ongoing occupation of the project site could eliminate the availability of effective habitat and use by wildlife.	12-26
<u>Page 5-47, Table 5.9.2-3:</u> Erosion and runoff from project construction sites may very well impact water quality over the long term and not only affect habitats short term as there are no BMPs <u>requiring</u> revegetation to reduce runoff.	12-27
<u>Page 5-54, Table 5.9.3-2:</u> Regarding the topic of “Interference with migratory behavior” under the “Ecological Stressor” category in Table 5.9.3-2, this document indicates that the fact that “Migratory birds and mammals may avoid previously used migration routes, potentially affecting condition and survival” would be a “localized” effect completely misses the concept of migration. Migratory animals use migration routes to complete	12-28

annual life cycles. The suggestion that wind energy development’s potential negative effect on the loss of, or impediment to, migration routes for migratory species is a “localized” issue is a gross mis-statement. If wind energy development, even at the localized site level, interferes with the migratory ability of a species, then affected individuals within that species will have a reduced ability to complete their life cycle. The implications migratory species not being able to complete their life cycle is far from being a “localized” issue. Various species of volant and non-volant animals migrate in sexual or age class segregations, with females and males, or young and adult, using different migratory pathways, depending on physiological requirements. Interference with one of the groups ability to migrate clearly would have the potential affect the species as a whole.

12-28  
(cont.)

Page 5-54, Table 5.9.3-2: With regard to collisions with turbines, towers etc. the identification of low magnitude of impact may be misleading especially if the species affected population is already stressed and on the decline as are many of the raptors and other birds of Nevada. (See Nevada Partners in Flight “Bird Conservation Plan).

12-29

5.9.3.2.1 Electrocution; Page 5-55, Paragraph 1: The statement that the “accidental electrocution of birds from contact with distribution or transmission lines in not expected to adversely affect bird populations in the vicinity of a wind energy development project” again ignores the fact that a majority of birds are migratory, and therefore doesn’t account for the fact that these individuals, once electrocuted, are no longer able to contribute reproductively to their species. A majority of the potential impacts to migratory wildlife will be indirect, and not at the localized level, and this must be accounted for in the EIS.

12-30

5.9.3.2.2 Noise; Page 5-56; Paragraph 3: The conclusions derived from comparing data from studying the effects of gas well compressor noise with noise generation data from wind generators are inappropriate. Gas well compressors operate in a completely different mechanical method and disturbance environment than wind generators, and therefore it is highly inappropriate to compare wildlife avoidance data, simply because the two machine types generate noise.

12-31

5.9.3.2.3 Collisions with Turbines, Meteorological Towers, and Transmission Lines; Page 5-57, Paragraph 2 (Avian Collisions): The numbers provide for species of birds often considered pests or undesirables in the first paragraph of the Avian Collisions section represent only 13.6% of bird species for turbines in the United States, and only 6.25% of bird species for turbines outside of California. Since these represent such a small proportion of the bird species killed, why are they reported at all here, and more importantly why are data not provided for native species, including migratory and non-migratory. Highlighting wind energy’s contribution to mortality of bird species often considered pests or undesirables is misleading when the numbers of native non-migratory and migratory species are significantly greater. Many of these native species are also experiencing significant stress on their populations making impacts of additional development all that more important. This document should be clear on this.

12-32

5.9.3.2.3 Collisions with Turbines, Meteorological Towers, and Transmission Lines;

Page 5-57: Regarding this documents comments on avian collisions with wind turbines, the document makes gross conclusion without considering several key factors. The document does not indicate what habitats were included in the analysis of bird mortalities from the reported data, and does not report how this relates to habitats in the eleven western states this proposed EIS is to cover. Furthermore, this document, based on the fact that bird mortality data from multiple existing wind energy sites, was compiled and summarized to give average kill rates per year, fails to recognize an almost assured bias in sampling design for bird carcass searches, while asserting in the 4<sup>th</sup> paragraph under avian collisions that the mortality data is likely an overestimation of mortality contributed to wind energy development. Data on bird mortality rates should not be compared between multiple sites, if carcass searches were not performed the same at each site. Preliminary data available suggest huge biases in carcass documentation depending on the method of search used.

12-33

5.9.3.2.3 Collisions with Turbines, Meteorological Towers, and Transmission Lines;

Page 5-59, Table 5.9.3-4: These data include only five western states. With the exception of California (included in this table), much of the bird mortality studies that have begun in recent years have been conducted in states not included in this table. By not including the magnitude of data available from states that already harbor operating wind energy sites, this dataset is incomplete and potentially misleading. In order to achieve a better understanding of the relationships of wind energy development and avian mortality, the data available should be examined by species, habitats, and eco-regional perspectives.

12-34

5.9.3.2.3 Collisions with Turbines, Meteorological Towers, and Transmission Lines;

Page 5-60; Paragraph 1: The inferences derived from comparing the number of species observed as mortalities from wind generation with a list of species reported to occur in each of the selected states, are extremely inappropriate. Bird species lists have been continuously compiled and added to in every single U.S. state for several decades. Comparing these lists with a list of species killed by wind generation from anecdotal or inadequate sampling at wind generation sites is unfounded.

12-35

5.9.3.2.3 Collisions with Turbines, Meteorological Towers, and Transmission Lines;

Page 5-60; Paragraph 1: This document states that “long-range migrations [of birds] are not likely to be impacted by turbines except during weather conditions that induce them to fly low, or during takeoff and landing”, based on one single study. It is already very clear that species affected and to the extent they are affected will likely vary substantially by eco-region, habitat, and specific site locality. Concluding that long-range bird migrations are likely not to be impacted based on the data this document references, is completely inappropriate.

12-36

5.9.3.2.3 Collisions with Turbines, Meteorological Towers, and Transmission Lines;

Page 5-62, Paragraph 3 (Raptors): This document states that “To date, no studies have shown population-level effects in raptor populations associated with wind energy projects”, while ignoring that the affects to volant wildlife from wind generation is a

12-37

<p>relatively new discovery, especially within the United States, and has only in the last few years been receiving attention. It will likely take time and substantial resources to observe potential population level effects to wildlife from a source such as wind-generation, and this document fails to recognize this fact, instead stating that wind energy projects do not induce population level affects on raptors.</p>	12-37 (cont.)
<p><u>5.9.3.2.3 Collisions with Turbines, Meteorological Towers, and Transmission Lines;</u>  <u>Page 5-64:</u> In order to begin to adequately address impacts of wind generation facilities to raptors, the mitigation measures in the “Compatibility of a Wind Energy Development Project and Raptors” draft document, should be mandated in this EIS.</p>	12-38
<p><u>5.9.3.2.3 Collisions with Turbines, Meteorological Towers, and Transmission Lines;</u>  <u>Page 5-65 Paragraph 1:</u> This document states that only 9 of the 39 species reported in the United States “have been recorded as fatalities at wind farms”, yet fails to report that bat collisions with wind generators is a relatively new phenomenon and has received little attention, especially from carcass survey standpoint. Preliminary data available, suggests that different sampling methods for bats (i.e. weekly carcass searches vs. daily carcass searches) produce substantially different data sets. This document does not adequately address this issue, and instead compares the different data sets with little regard as to the different sampling methods used.</p>	12-39
<p><u>5.9.3.2.3 Collisions with Turbines, Meteorological Towers, and Transmission Lines;</u>  <u>Page 5-67, Table 5.9.3-6:</u> This table summarizes the data referred to in the above comment. These data are reported assuming that the different sampling methods for carcass searches conducted are equivalent to one another, when they were clearly not. Preliminary data suggests a rather large bias in observed bat carcasses at wind generation sites according to survey method. These data cannot be properly compared at the scale which they are in this document.</p>	12-40
<p><u>5.9.3.2.3 Collisions with Turbines, Meteorological Towers, and Transmission Lines;</u>  <u>Page 5-68; Paragraph 1:</u> The first sentence of the first paragraph of this page needs to be clarified that data from the Buffalo Ridge WRA apply only to the Buffalo Ridge WRA, and inference on other sites from these data should be made with extreme caution. Since data impacts to volant species of wildlife will likely vary substantially by eco-region, habitat, and specific site locality, it is imperative that general inferences to volant wildlife impacts not be made from such limited site-specific data, which is currently the only data available.</p>	12-41
<p><u>5.9.3.2.6 Disturbance to Wildlife; Page 5-68; Paragraph 1:</u> At a previous point in the document it is recognized that natural habitat is assumed to be at “full capacity” regarding wildlife. However, in this section, it is stated that wildlife displaced from wind energy development will “permanently move from the area”. This document fails to adequately address the fate of wildlife displaced from wind generation facilities. Not only direct displacement, but especially indirect displacement of wildlife must be considered.</p>	12-42

<p><u>5.9.3.2.6 Disturbance to Wildlife; Page 5-69:</u> Regarding the “Compatibility of a Wind Energy Development Project and Bats” draft document: 1) Nevada does not recognize the little brown bat as “critically imperiled to imperiled”. The Nevada Bat Conservation Plan (Draft 2002) in its risk assessment identifies the Little Brown Myotis populations and habitat at moderate risk ; 2) no mention is made and little consideration given to elevation migrations of bat species that are thought to be non-migratory; 3) little consideration is made to migratory bat species; 4) no consideration is offered to the fact that much of the western U.S. is an arid environment, and therefore, water sources are an attractant to bats and the locality of water sources must be considered with siting wind generation facilities; and, 5) why are only little brown bats, big brown bats, and especially eastern red bats eastern pipistrelles discussed in specific, and not other species of bats that occupy the Western U.S. in substantially greater numbers?</p>	12-43
<p><u>5.9.3.2.6 Disturbance to Wildlife; Page 5-70:</u> In order to begin to adequately address impacts of wind generation facilities to bats, the mitigation measures in the “Compatibility of a Wind Energy Development Project and Bats” draft document, should be mandated in this EIS.</p>	12-44
<p><u>5.9.3.2.7 Interference with Migratory Behavior; Page 5-71; Paragraph 1:</u> The “” section only addressed non-volant species, and there is no mention of bird or bat species in this section. The interference to bird and bat species’ ability to migrate must be adequately addressed in this section.</p>	12-45
<p><u>Page 5-72; Compatibility of a Wind Energy Development Project and Gallenaceous Birds:</u> Again suggested mitigation as identified here is not required and therefore should not be considered in the impacts analysis unless rewritten to be required.</p>	12-46
<p><u>5.9.3.4: Operational Effects on Threatened and Endangered Species; Page 5-75; Paragraph 3:</u> This document claims potential impacts to threatened or endangered species from non-facility related human activity would be “unrelated to facility operations and out of the control of the facility and its operators”, thus completely ignoring the fact that human activities not related to wind generation are likely to occur as a direct result of a developed wind generation project. The BLM cannot ignore that through the permitting of a development that results in increased access and resultant impacts to resource values that these impacts are not related to the permitted project. Activities that are not specifically related to wind generation operations, but which are a result of the increased access to remote sites that permitted wind generation will potentially provide must be addressed in this document.</p>	12-47
<p><u>5.9.5 Mitigating Measures; Page 5-76:</u> In order to adequately document and address the potential impacts to wildlife, it is imperative that appropriate mitigation measures regarding wildlife be mandated in this EIS. The mitigation measures as written do not require the described action and therefore cannot be assumed that they would be implemented.</p>	12-48

5.9.5.6 Mitigation for Threatened, Endangered and Sensitive Species; Page 5-84; Paragraph 2, 3<sup>rd</sup> Bullet: Biota by definition refers to the plants and animals of a particular region. Relocation of animal species makes no sense at all relative to mitigating for any impacts of projects. As this document has discussed in other sections the loss and/or fragmentation of habitat and the impacts on movement behaviors will impact animal species and the assumption that animals will move (or in this case be moved) to habitats outside of the project area without affect on the population is invalid. Simply relocating state protected biota is completely inadequate. Where wind generation is proposed to occur in areas harboring federal or state protected, threatened, endangered, and sensitive species, careful consideration must be applied to determine the method in which wind generation can be employed with limited impacts to these biota.

12-49

Page 6-3. Section 6.1.2: This section states that “ Implementation of the proposed policies and BMPs would ensure that potential adverse impacts to most of the natural and cultural resources present at wind energy development sites, except wildlife and visual resources, would be minimal to negligible.” In order to prevent species declines and subsequent Federal Listing under the Endangered Species Act, it is imperative that this document take a more proactive approach at protecting wild flora and fauna, and the wildlife be mitigated and planned regarding wind generation development, so that impacts would be “minimal to negligible”, instead of simply reduced.

12-50

6.1.2 Environmental Impacts; Page 6-2; Paragraph 1: The first sentence suggests that the Wind Energy Development Program would incorporate policies and BMPs that establish mitigation requirements for all projects. The statement is incorrect. In fact of 102 identified BMPs, 97 or over 95% are phrased with the words should be or should. There has been no commitment to requiring any of these BMPs nor is there any information presented that would provide an expectation that any of these BMPs would be implemented. Yet the analysis presented continues to lead the reader to believe impacts will be minimized by implementation of BMPs.

12-51

6.1.2 Environmental Impacts; Page 6-4; Paragraph 1: Again, the document is assuming that BMPs written with no requirement for implementation will “considerably reduce potential impacts to wildlife”. This is not the case unless the BMPs the document has defined as “the most effective, environmentally sound, and economically feasible means to manage an activity and mitigate its impacts” are rewritten to assure there application where appropriate.

12-52

6.4.1.10 Ecological Resources; Page 6-18: The cumulative impacts section is lacking any significant assessment relative to the proposed action other than a comparative look at avian mortality by certain causative factors. There is no assessment of habitat fragmentation and loss. There are a significant amount of scientifically credible data available on existing impacts to habitats in the western United States for a variety of factors including fire and invasive plant impacts, highways, powerlines, urban development, agricultural development, etc., etc. This information should be used for creating a credible assessment of cumulative impacts. An example would be the

12-53

following: Wisdom, M. J., L. H. Suring, M. M. Rowland, R. J. Tausch, R. F. Miller, L. Schueck, C. Wolff Meinke, S. T. Knick, and B. C. Wales. 2003. A prototype regional assessment of habitats for species of conservation concern in the Great Basin Ecoregion and State of Nevada. Version 1.1, September 2003, unpublished report on file at USDA Forest Service, Pacific Northwest Research Station, 1401 Gekeler Lane, La Grande, OR 97850.

12-53  
(cont.)

Page 6-14, Table 6.4.1-1: How accurate is the data in this table? The acreages reported in this table are unreasonable, at least for Nevada. In Nevada alone, there are currently over 105,000 acres right of way (ROW) granted and issued for wind energy development to 13 different companies. There are an additional 125,429 acres of ROW applications pending action submitted by 15 companies and more applications being received. These acreages are approximately seven times greater than the acreage reported in this table as "Economically Developable Wind Resources". Also, it should be recognized that as wind generation is established in select areas, other areas nearby become more economically feasible to develop as additional wind generation sites, because, for example, the cost associated with transferring the generated power off-site and into the western power grid system becomes substantially reduced.

12-54

ATTACHMENT 1

NEVADA STATE TERRESTRIAL SPECIES CLASSIFICATION LIST

*(additions to past list in bold)*

Mammals

## Protected

pika	<i>Ochotona princeps</i>
Douglas squirrel (chickaree)	<i>Tamiasciurus douglasi</i>
northern flying squirrel	<i>Glaucomys sabrinus</i>
western gray squirrel	<i>Sciurus griseus</i>
fringed myotis	<i>Myotis thysanoides</i>
pallid bat	<i>Antrozous pallidus</i>
Allen's lappet-eared bat	<i>Idionycteris phyllotis</i>
Brazilian free-tailed bat	<i>Tadarida brasiliensis</i>
dark kangaroo mouse	<i>Microdipodops megacephalus</i>
pale kangaroo mouse	<i>Microdipodops pallidus</i>

## Protected, Threatened

spotted bat	<i>Euderma maculatum</i>
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## Protected, Sensitive

California leaf-nosed bat	<i>Macrotus californicus</i>
Western red bat	<i>Lasiurus blossevillii</i>
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>
Western mastiff bat	<i>Eumops perotis</i>
Sierra mountain beaver	<i>Aplodontia rufa californica</i>
Hidden Forest Uinta chipmunk	<i>Tamias umbrinus nevadensis</i>
Palmer's chipmunk	<i>Tamias palmeri</i>
Ash Meadows montane vole	<i>Microtus montanus nevadensis</i>
Pahranagat Valley montane vole	<i>Microtus montanus fucosus</i>

## BIRDS

## Endangered

Bald Eagle	<i>Haliaeetus leucocephalus</i>
Peregrine Falcon	<i>Falco peregrinus</i>
Yuma Clapper Rail	<i>Rallus longirostris yumanensis</i>
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>

## Sensitive

Northern Goshawk	<i>Accipiter gentilis</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>
Loggerhead Shrike	<i>Lanius ludovicianus</i>
Sage Thrasher	<i>Oreoscoptes montanus</i>
Brewer's Sparrow	<i>Spizella breweri</i>

## REPTILES

## Protected

Gila Monster	<i>Heloderma suspectum</i>
Sierra Alligator Lizard	<i>Elgaria coerulea palmeri</i>
Shasta Alligator Lizard	<i>Elgaria coerulea shastaensis</i>
Sonoran Mountain Kingsnake	<i>Lampropeltis pyromelana</i>

## Threatened

Desert Tortoise	<i>Gopherus agassizi</i>
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**Responses for Document 00012**

- 00012-001:** 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.
- 00012-002:** The proposed action is to implement amendments to the land use plans identified in Table 2.2.4-1 and Appendix C through this PEIS process. The scope of the proposed land use plan amendments identified in Appendix C is limited to the adoption of the Wind Energy Development Program proposed policies and BMPs and the identification of a limited number of additional exclusion areas. The BLM has determined that the PEIS process adequately meets the NEPA requirements for public review of these proposed amendment changes. As required by the proposed policies and BMPs, additional site-specific NEPA 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 scope and appropriate level of site-specific NEPA analyses will assess local conditions and site-specific environmental impacts and will support the development of project-specific stipulations.
- 00012-003:** 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.
- 00012-004:** While there would be some level of habitat loss and wildlife impacts, the magnitude of these impacts is not expected to affect wildlife to the extent that there would be any significant negative impacts on fishing, hunting, and other recreation activities, or on recreational use values associated with these locations and in the surrounding local economy. It may be the case that improved accessibility associated with the provision of access roads to wind projects actually increases recreational use values in certain locations, potentially increasing the local economic impact of recreational activities in these locations. Evaluation of the precise relationships among particular wind projects, habitat and wildlife losses, and recreation use values would be the subject of site-specific analyses, and, as such, is beyond the scope of the PEIS.
- 00012-005:** The Categorical Exclusion (CX) identified in the PEIS would not apply to wildlife monitoring activities undertaken during development or operation of a wind energy project. Rather, it would be limited to short-term access during the site monitoring and testing phase. Activities during this phase are limited to meteorological monitoring and testing activities. If proposed site monitoring and testing activities could result in extensive site disturbance, including

disturbance to wildlife or threats to human safety, the CX would not be applicable. This determination will be made on a case-by-case basis.

- 00012-006:** As indicated in the Final PEIS, existing BLM guidance on the management of sage-grouse and sage-grouse habitat will be incorporated into the siting, design, and operation of any proposed wind energy project on BLM-administered lands.
- 00012-007:** The Categorical Exclusion (CX) identified in the PEIS specifically requires that the proposed activity "includes rehabilitation to restore the land to its natural or original condition." If extensive site disturbance is anticipated at a specific location as a result of site monitoring and testing, such as could occur during the development of new roads, the CX would not be applicable. This determination will be made on a case-by-case basis.
- 00012-008:** The BMP has been rewritten to require, rather than recommend, that meteorological towers shall not be located in or near sensitive habitats, in areas where ecological resources known to be sensitive to human activities are located, or in a manner that will disrupt wildlife reproductive activities or other important behaviors. These requirements will serve to minimize wildlife mortality as well as other, less severe impacts to wildlife.
- 00012-009:** The 3rd paragraph of that section indicates that developers are erecting ever-taller meteorological towers in order to measure wind characteristics at or near the hub heights of the proposed wind turbines. Since the wind turbines likely to be proposed for future wind farms cannot be reliably specified at this time, the specification of a height that is considered representative of future meteorological towers is not possible; however, this language adequately describes the probability that meteorological tower heights may be equivalent to eventual wind turbine hub heights.
- 00012-010:** Comment noted. The table and text have been revised. With regard to the chukar and other species, the Wind Energy Development Program proposed policies and BMPs require that site- and species-specific analyses will be conducted for any proposed project on BLM-administered lands. The purpose of these analyses is, in part, to identify any habitats or species that warrant special consideration during project siting, design, construction, operation, and decommissioning. The scope and approach for these analyses, as well as any particular species or habitats to be evaluated, will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. With regard to possible changes in species distributions related to climate change (or any other factor), Wind Energy Development Program proposed policies and BMPs also require the development of monitoring programs with adaptive management stipulations for monitoring environmental conditions during all phases of a wind energy project. Because of their adaptive management stipulations, these monitoring programs may be revised as necessary to track species that have moved into the

project area for whatever reason. Through this process, the BLM will develop project-specific siting, design, operation, decommissioning, and monitoring stipulations for incorporation into the POD.

**00012-011:** The flyways discussed in this section are applicable to most birds. The source document discusses warblers, sparrows, raptors, and others in addition to waterfowl. In fact, the text in this section states "Birds migrating north from wintering areas to breeding areas use these pathways in the spring, and birds migrating southward to wintering areas use them in the fall. Each flyway encompasses broad geographic areas and includes many specific routes and subroutes, the use of which varies by species. Consideration of these more specific routes will be an important parameter for identifying site-specific concerns related to migratory birds."

The BMPs and policies of the proposed Wind Energy Development Program require operators to evaluate avian use, which includes migratory patterns, of the project area and design the project to minimize or mitigate the potential for bird strikes. Thus, the evaluation of avian migratory activities will be conducted at the project- specific level in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this process, the BLM will develop project-specific design and siting stipulations for incorporation into the POD that have incorporated site-specific and species-specific considerations of avian migration at the project area. No text change has been made to the document in response to your comment.

**00012-012:** Thank you for your comment. The raptor numbers presented in the text (page 4-21) and Table 4.6.2.2 separate and discuss the birds of prey in four categories, the raptors (eagles, osprey, and falcons), the falcons, the owls, and the vultures. The commentor sums the species numbers of all three categories in the comment. The data in the draft PEIS were based on previous information from the Nevada Department of Conservation and Natural Resources, Natural Heritage Program; the species numbers in the draft PEIS total 25. New bird-of-prey data provided by the commentor and the Nevada Department of Wildlife (NDOW) identifies 31 species, including 5 species that have an "accidental" status in the state and were not included in the species counts presented in the PEIS. This new NDOW list also does not identify the grey falcon, which is included in the NDOW bird list for Northeastern Nevada, nor the great horned owl, which NDOW staff subsequently stated was an oversight in the newest listing. Because of these discrepancies and omissions, no text change has been made to the document in response to your comment.

**00012-013:** These species were not included in the species counts for Nevada because of their status in the state. The California condor, great gray owl, and elf owl are classified as accidental visitors to the state. The text and table will be revised to include these species.

- 00012-014:** The bighorn sheep has been added to the text. This species is included in the BLM sensitive species mammal species count provided in Table 4.6.5-3.
- 00012-015:** The text has been revised accordingly.
- 00012-016:** The table has been revised as indicated.
- 00012-017:** The text has been revised accordingly.
- 00012-018:** The species lists presented in the tables identified in the comment were derived using the cited information, which was the most current available at the time. The numbers presented for Nevada in Table 4.6.5-4 were derived, in part, from the Nevada Natural Heritage Program Nevada Sensitive Species List (NNHP 2004). Comparison of this list with the list provided in Attachment 1 of the comment shows a number of inconsistencies, with some species on one list and others on the other list, and more mammals and birds identified in the PEIS than in the attachment. While there may be such differences in species numbers identified for Nevada (or other states), changes in these numbers will not alter the analyses or conclusions in the PEIS. Considerations of state listed species and their habitats will be evaluated on a site-specific basis for each wind energy project proposed for BLM-administered lands. No text change has been made to the document in response to this comment.
- 00012-019:** The projected numbers of economically developable acres of BLM-administered lands presented in Tables 5-1 and 6.4.1-1 are based on the results of WinDS model analyses. These projections do not include existing capacity and are unlikely to correspond with specific initiatives underway or being considered. In addition, these numbers do not reflect the total number of acres associated with ROW authorizations or applications.

It is not always true that wind development in an area makes nearby areas more economically feasible for wind development. There are several, often counterbalancing, factors to consider. Transmission access may be reduced if a new line is built for one wind farm with spare capacity for further wind development. However, it can also be the case that the first wind farm might consume the spare capacity on any existing transmission line or substation, thereby increasing the cost of transmission access for any subsequent wind farms that will have to tie into the grid at a more remote point. Furthermore, the addition of more and more wind into a particular control area exacerbates the impact of intermittency from wind, thus increasing ancillary services costs and reducing the new wind plant's ability to contribute to reserve margin requirements. In fact, these intermittency impacts may be somewhat mitigated by spreading out the wind farms so that their generation is not coincident in time. These are the kinds of factors that WinDS considers.

- 00012-020:** The impacts identified as being important are not intended to be threshold conditions above which there would be no concern. Rather, they represent unacceptable impacts against which potential impacts were compared in order to identify wind energy development activities or actions that would need to be carefully evaluated and either mitigated or prohibited. The text has been revised to indicate that these are not only unacceptable, but that impacts that could lead to these were also considered in the evaluations. As stated in the text following these bullets, the importance of these impacts can only be fully evaluated at the project-specific level, which is beyond the scope of this document.
- 00012-021:** The bullet has been revised to include bats.
- 00012-022:** The text has been revised to indicate a potential for noxious plants to be introduced during monitoring and testing activities.
- 00012-023:** Because no construction has yet occurred, "may impact" is correct. No text change has been made to the document in response to your comment.
- 00012-024:** The text has been revised accordingly.
- 00012-025:** The table refers only to impacts that would occur during the construction phase, which would be short-term. The Wind Energy Development Program proposed policies and BMPs require a storm water management plan for the prevention of increased soil erosion for any wind energy project proposed for BLM-administered land. The BMPs also require the development of a habitat restoration plan. Both of these plans would include measures to avoid, minimize, or mitigate both short-term and long-term erosion and runoff. The specific measures in these plans 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 design, siting, construction, and operation stipulations for incorporation into the POD. No text change has been made to the document in response to your comment.
- 00012-026:** The table and associated text have been revised accordingly.
- 00012-027:** The table refers only to impacts that would occur during the construction phase, which would be short-term. The Wind Energy Development Program proposed policies and BMPs require a storm water management plan for the prevention of increased soil erosion for any wind energy project proposed for BLM-administered land. The BMPs also require the development of a habitat restoration plan. Both of these plans would include measures to avoid, minimize, or mitigate both short-term and long-term erosion and runoff. The specific measures in these plans 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 design, siting, construction, and operation stipulations for incorporation into the POD. No text change has been made to the document in response to your comment.

- 00012-028:** Comment noted. The text in Table 5.9.3-2 has been revised to indicate that the loss or impediment of a migration corridor would affect only mammals. Migratory birds and other volant species are not expected to avoid wind-energy-related structures located along migratory pathways (thus the concern for collisions of migratory bats and birds with wind turbines and towers). Impacts to migratory volant species are addressed in Section 5.9.3.2.3, Collisions with Turbines, Meteorological Towers, and Transmission Lines.
- 00012-029:** While the potential for population-level effects is identified in the text, this information was not included in the table. The table has been revised to indicate that for some species, population level effects may be possible.
- 00012-030:** While electrocutions of birds have been well documented, there is little evidence that collisions that occur every year along transmission lines throughout the United States have resulted in population-level effects for any species. The Wind Energy Development Program proposed policies and BMPs require that migratory corridors for birds and bats be considered during siting. In addition, surveys are required to be conducted for protected species and species of concern, just those species that could incur population-level effects from electrocutions or collisions with wind facility structures. Such surveys would be designed and implemented with input from federal, state, and local agencies, and interested stakeholders, and would be required for all wind energy development projects proposed for BLM-administered lands.
- 00012-031:** The discussion regarding compressor noise is appropriate. That study found some local bird populations to be affected at noise levels greater than 40 dB(A), which is less than the noise levels measured at some wind facilities. No text change has been made to the document in response to your comment.
- 00012-032:** The text has been revised accordingly.
- 00012-033:** The presentation of the bird-strike mortality data is intended to illustrate the range of average annual mortalities and mortalities per turbine and facility that have been reported from a variety of facilities. The PEIS acknowledges the importance of habitat-specific, species-specific, and facility-specific considerations in collision mortalities at wind energy facilities. While differences in the reported mortality rates are likely because of differences in site-specific habitats and the study designs employed to generate the mortality estimates, the range of reported mortalities across the different facilities is relatively small.

The Wind Energy Development Program proposed policies and BMPs acknowledge the importance of habitats and monitoring study designs for siting and operating a wind energy development. The policies and BMPs require site-specific analyses, including monitoring study designs and habitat surveys, for all wind energy projects proposed for BLM-administered lands. The scope and approach of these site-specific analyses will be developed on a project-by-project basis with input from other federal, state, and local agencies, and other interested stakeholders.

The text has been revised to point out that strict comparisons of the reported mortalities is problematic because of differences among the sites in the habitats present, the types of birds (and their natural history and behavior) that use the habitats, and the mortality study designs.

**00012-034:** The data presented in the PEIS are intended to show the range of bird mortalities that have been estimated for wind energy facilities in the western United States. The data summarized in this section and table are based on available information; the results from other ongoing monitoring studies, as suggested in the comment, were not available for use in the PEIS. The Wind Energy Development Program proposed policies and BMPs require the design and conduct of site-specific analyses, including habitat surveys, wildlife use surveys, and avian mortality monitoring, at any wind energy project proposed on BLM-administered lands. The scope and approach of these site-specific analyses will be determined on a project-by-project basis and in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Site-specific analyses are beyond the scope of the PEIS. No text change has been made to the document in response to your comment.

**00012-035:** The comparison of the species that have been reported killed at wind energy facilities with the species reported to occur in the western United States where wind energy projects may be proposed for BLM-administered lands is appropriate. While both lists are subject to change and are dependent on the quality of the surveys that generated the data, the comparison is useful in that it clearly suggests that not all species are equally vulnerable, regardless of the basis for the mortality (site-specific habitats, inappropriate facility siting). Given the distribution of BLM-administered lands potentially suitable for wind energy development, it is possible that a wind energy facility in 1 of the 11 western states may be sited in a location where many of the bird species reported from that state may occur (for at least at some time of the year). No text change has been made to the document in response to your comment.

**00012-036:** The text, as written, was misleading and suggested that long-range migrants are not expected to be affected. The text has been revised to state that because long-range migrants typically fly at relatively high altitudes, they would not be expected to interact with turbines except when taking off and landing, or when

forced by bad weather to migrate at lower heights. It was not the intent of the original text to suggest that long-range migrants are likely not to be impacted.

- 00012-037:** The impacts to volant species from wind energy facilities have been studied for up to 20 years or more at some facilities (i.e., Altamont), and, to date, none have demonstrated a population-level effect on raptors. These studies have documented avian and bat mortalities, but the effect of these mortalities on local and migratory birds and bats is not known. The document does not state that wind energy projects do not induce population-level effects on raptors. No text change has been made to the document in response to your comment.
- 00012-038:** The Wind Energy Development Program proposed policies and BMPs require that other existing and relevant BLM mitigation guidance be incorporated into project-specific Plans of Development that will be required for any wind energy project proposed for BLM-administered lands. Additional mitigation measures, such as those identified in Section 5.9.5, will be incorporated as project stipulations, as needed, to address site-specific and species-specific issues. The need for these mitigation measures will be determined on a project-by-project basis with input from other federal, state, and local agencies, and interested stakeholders. No text change has been made to the document in response to your comment.
- 00012-039:** Comment noted. The text has been revised to indicate that to date, only nine species have been documented as fatalities at wind farms. In addition, the Wind Energy Development Program BMPs require the design and conduct of scientifically rigorous bat use surveys to support the design of wind energy facilities proposed for BLM-administered lands. The BMPs also require ongoing surveys to monitor wildlife mortality (including that of bats) during operation of the proposed facility. These studies will be developed on a project-specific basis; their design and implementation are beyond the scope of this document.
- 00012-040:** The presentation of bat mortality data is intended to illustrate the range of annual mortalities and mortalities per turbine and facility that have been reported from a variety of facilities. Text has been added to the PEIS to indicate that the survey methods may not be equivalent among facilities.
- 00012-041:** The text regarding the applicability of the Buffalo Ridge WRA has been revised as suggested. The referenced paragraph includes text stating that population-level effects on migratory bats from sustained collision mortality are unknown.
- 00012-042:** Comment noted. The text has been revised to indicate that permanently displaced wildlife may experience a high mortality rate if the surrounding habitats are at carrying capacity.

**00012-043:** The text box on bats has been modified to delete the mention of the subnational ranking of the little brown bat in Nevada. Information on the hoary and silver-haired bats has been added to the text box, which now has a discussion on all bat species that have been observed as fatalities in the 11 western states. These species are either migratory or travel long distances to hibernacula from their summer ranges. The potential impacts of a wind energy development on bats during nonmigratory periods (e.g., elevational movements between roosting and feeding sites) would be largely dependent on site-specific habitat conditions. The BMPs for POD development (Section 2.2.3.2.2) address wildlife and other ecological concerns. These include siting wind energy developments in the least environmentally sensitive areas.

As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, including the development of an appropriate monitoring program, will be conducted for any proposed project on BLM-administered lands. The scope and approach for both site- and species-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- and species-specific analyses are beyond the scope of the PEIS.

**00012-044:** The Wind Energy Development Program proposed policies and BMPs specify the requirements for scientifically rigorous surveys of bat use, including the presence of bat colonies; the avoidance of placing turbines near known bat hibernation sites, maternity/nursery colonies, migration corridors, and known flight paths between colonies and feeding areas; and the design of wind energy projects to minimize the potential for bat strikes. These policies and BMPs apply to any wind energy project proposed for BLM-administered lands. Additional mitigation measures, such as those identified in Section 5.9.3.2.6, will be developed and implemented on a site-specific, project-by-project basis with input from other federal, state, and local agencies, and interested stakeholders. Requiring specific mitigation measures in the PEIS is beyond the scope of the document.

**00012-045:** Text has been added stating that wind energy facilities are not expected to block migratory movements of birds and bats. Impacts to migratory birds and bats will result primarily from collisions with wind facility structures, and these impacts are discussed in Section 5.9.3.2.3.

**00012-046:** As required by the Wind Energy Development Program proposed policies and BMPs, species-specific mitigation measures will be developed for all wind energy projects proposed for BLM-administered lands. The nature of the species-specific mitigation measures will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Regarding sage-grouse species, existing BLM guidance

on the management of sage-grouse and sage-grouse habitat will be incorporated into the development of a wind energy project, including appropriate mitigation measures. Specifying required mitigation measures is beyond the scope of the PEIS. No text change has been made to the document in response to your comment.

- 00012-047:** While the presence of a wind facility may increase access to surrounding areas, the document is correct in stating that activities of visitors in these areas are beyond the control of the project operators, and impacts that would result from nonfacility visitors would be unrelated to facility operations as stated. The document does not ignore potential impacts. It specifically states that impacts to threatened and endangered species from visitors would be similar in nature to the impacts from visitors identified to vegetation, fish, and wildlife. These are discussed in Sections 5.9.3.1.3, 5.9.3.1.4, 5.9.3.1.5, 5.9.3.2.6, and 5.9.3.3. No text change has been made to the document in response to your comment.
- 00012-048:** 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. However, the nature of mitigation measures developed for a project 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 mitigation stipulations for incorporation into the PODs. The identification of specific, required mitigation measures is beyond the scope of the PEIS. No text change has been made to the document in response to your comment.
- 00012-049:** The text regarding relocation has been deleted. As required by the Wind Energy Development Program proposed policies and BMPs, species-specific analyses, including the evaluation of listed species and their habitats, will be conducted for any proposed project on BLM-administered lands. The scope and approach for species-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.
- 00012-050:** The discussion in Section 6.1.2 goes on to state that the proposed policies and BMPs would considerably reduce potential impacts to wildlife by requiring that these issues be addressed comprehensively and by providing some minimum standards for mitigation. The intent of this discussion was to underscore the need for site-specific analyses to identify all the potential impacts to wildlife and flora and the appropriate mitigation measures. Numerous BMPs and policies have been proposed to require adequate analyses of these resources and to incorporate input from other federal, state, and local agencies, and interested

stakeholders. The BLM is fully committed to minimizing potential impacts to these resources to the greatest extent possible.

- 00012-051:** 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.
- 00012-052:** 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.
- 00012-053:** Habitat loss and habitat fragmentation will be evaluated on a project-by-project basis. A new BMP has been inserted in Section 2.2.3.1, Proposed Policies, to ensure that site-specific NEPA analyses will identify and assess any cumulative impacts that are beyond the scope of the cumulative impacts addressed in the PEIS.
- 00012-054:** The projected numbers of economically developable acres of BLM-administered lands for wind presented in Tables 5-1 and 6.4.1-1 are based on results of the WinDS model analyses. These projections do not include existing capacity and are unlikely to correspond to specific initiatives underway or being considered. In addition, these numbers do not reflect the total number of acres associated with ROW authorizations or applications.

It is not always true that wind development in an area makes nearby areas more economically feasible for wind development. There are several often counterbalancing factors to consider. Transmission access may be reduced if a new line is built for one wind farm with spare capacity for further wind development. However, it can also be the case that the first wind farm might consume the spare capacity on an existing transmission line or substation, thus increasing the cost of transmission access of any subsequent wind farms that will have to tie into the grid at a more remote point. Furthermore, the addition of more and more wind into a particular control area exacerbates the impact of intermittency from wind, thereby increasing ancillary services costs, and reducing the new wind plant's ability to contribute to reserve margin requirements. In fact, these intermittency impacts may be somewhat mitigated by spreading out the wind farms so that their generation is not coincident in time. These are the kinds of factors that WinDS considers.

## Document 00013

**PLANNING DEPARTMENT****TED JAMES, AICP, Director**

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E-Mail: [planning@co.kern.ca.us](mailto:planning@co.kern.ca.us)Web Address: [www.co.kern.ca.us/planning](http://www.co.kern.ca.us/planning)**RESOURCE MANAGEMENT AGENCY****DAVID PRICE III, RMA DIRECTOR**

Community &amp; Economic Development Department

Engineering &amp; Survey Services Department

Environmental Health Services Department

Planning Department

Roads Department

**December 6, 2004****File: BLM  
Wind Energy PEIS**

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

**Re: BLM Wind Energy Development Program and  
 Programmatic Environmental Impact Statement  
 Public Review Comments**

The Kern County Planning Department appreciates the opportunity to submit comments on the proposed Policies, Best Management Practices and Restrictions that comprise the proposed Wind Energy Development Program. Eastern Kern County, California encompasses over 700,000 acres of federal land, including Bureau of Land Management Land, Edwards Air Force Base and China Lake Naval Weapons Station.

Kern County has been working on land use in the area of wind energy development over the last twenty years and has established wind farms totaling over 20,000 acres. The Tehachapi-Mojave Wind Resource Area, located in Kern County, is the state's largest, currently responsible for over 40% of California's wind energy generation. This area has been identified by the California Energy Commission (CEC) as being the plausible source for 42% of the new renewable generation needed to meet the goals of the state Renewable Portfolio Standard. Based on our experience with wind energy development, Kern County Planning concurs with the following important proposed policies.

**2.2.3.1 Proposed Policies**

Page 2-6

- Entities seeking to develop a wind energy project on BLM-administered lands shall consult with appropriate federal, state, and local agencies regarding specific projects as early in the planning process as appropriate to ensure that all potential siting, design, construction, operating, monitoring, and decommissioning issues and concerns are identified and adequately addressed.
- Entities seeking to develop a wind energy project on BLM-administered lands, in conjunction with BLM Washington Office and Field Office staff, shall consult with the U.S. Department of Defense (DoD) regarding the location of wind power projects and turbine siting as early in the planning process as appropriate. This consultation shall occur simultaneously at both the installation/field level and the Pentagon/BLM Washington Office level.

13-1

The siting and height of wind turbines, which now can exceed 460 feet for the largest 1 MW to 2.5 MW turbines, has come into conflict with the important Military Operating Area, Military Training Routes and Restricted Airspace essential to the Department of Defense mission in California, as well as other areas of the United States.

While the consultation policy is important, the Bureau of Land Management should take a more comprehensive approach and work directly with the Department of Defense to review all potential lands and create areas of exclusion and areas where a height limit on the turbines would apply. Such an approach has been completed for private lands here in Kern County and a map identifying areas by color with certain height restrictions is being presented to the Kern County Board of Supervisors for appropriate zoning restrictions. This map was formulated through the diligent work of the wind energy industry, local Military Installation planners and the Department of Defense. It will provide certainty for wind energy developers as well as a streamlined process for staff planners. Such an effort should become a policy in the program, with the individual consultations occurring as an interim measure.

13-1  
(cont.)

Kern County Planning appreciates this effort to address the streamlined development of wind energy on BLM lands and still provide protection for other multiple use activities and the Department of Defense mission. Please provide all notices of the Final adoption of the program and the Environmental Impact Statement to this department. Thank you.

13-2

Sincerely,  
  
Lorelei H. Oviatt, AICP  
Supervising Planner

- cc: Board of Supervisors
- CAO
- RMA
- Kern Wind Energy Association
- Edwards Air Force Base
- China Lake Weapons Station

**Responses for Document 00013**

- 00013-001:** Thank you for your comment. We appreciate your input and participation in the public review process.
- 00013-002:** The Kern County Resource Management Agency, Planning Department has been added to the Wind Energy Development PEIS mailing list.

Document 00014



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

DEC 8 2004

OFFICE OF  
ENFORCEMENT AND  
COMPLIANCE ASSURANCE

BLM Wind Energy Programmatic EIS  
Argonne National Laboratory  
EAD/900 (Attn: Mr. Lee Otteni)  
9700 S. Cass Avenue  
Argonne, IL, 60439

Dear Mr. Otteni:

The U.S. Environmental Protection Agency (EPA) has reviewed the Bureau of Land Management's (BLM) **Programmatic Draft Environmental Impact Statement (DEIS) on Wind Energy Development on BLM-Administered Lands in the Western United States** pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementation Regulations at 40 CFR 1500-1508, and Section 309 of the Clean Air Act.

EPA supports increasing the development of renewable energy resources, as recommended in the National Energy Policy. The Programmatic DEIS is a comprehensive document that provides background on the issues, discusses the current process for developing wind energy projects, identifies the four stages of implementing wind projects and outlines the expected growth of our energy needs in the next 20 years. The document analyzes the environmental, social, and economic impacts associated with three alternatives, (No Action, Limited Development, and Comprehensive Development [preferred alternative]). The DEIS alternatives address most direct and indirect impacts, and suggest mitigation at the programmatic level. However, the final EIS should discuss impacts associated with the construction of new or modified infrastructure to connect wind generated energy to the general electric grid. In particular, EPA has concerns with the potential impacts from these actions on wetlands, water quality and wildlife habitat. The final EIS should include best management practices (BMPs) and mitigation measures in addition to information to address these concerns.

14-1

EPA supports the Proposed Policies in section 2.2.3.1, Proposed BMPs in section 2.2.3.2, and Mitigation Measures in section 5, and considers the framework outlined under the Proposed Action Alternative to be appropriate at the programmatic level. While the document states that "compliance with the CWA and BLM restrictions regarding activities in wetlands on BLM-administered lands would limit the likelihood of construction occurring in wetland

14-2

habitats,” there is no mention of the Section 404 regulatory requirements. The final EIS should reference Clean Water Act requirements, and reflect that site-specific actions will have to comply with Sections 404 of the Clean Water Act.

14-2  
(cont.)

The DEIS proposes voluntary bonding or financial assurance for decommissioning and reclamation. Based on the potential risks identified in the DEIS, we suggest that BLM consider requiring bonding for these activities. The expected life span of these projects, which we did not find discussed in the DEIS, would be useful in determining the correct financial instruments that could be used for bond calculations.

14-3

Portions of the eleven states covered by this programmatic DEIS have been designated as non-attainment areas for Particulate Matter (PM10). The final EIS should clarify that individual projects proposed in these areas must be in conformance with state air quality implementation plans (SIPs).

14-4

In accordance with EPA policy we have rated the document EC-2 (Environmental Concerns - Insufficient Information). The rating reflects EPA’s concerns about the potential for impacts to aquatic resources, water quality and wildlife habitat. The 2 portion of the rating is based on the request for additional information on infrastructure impacts and on conformity. A copy of EPA’s rating criteria is attached.

EPA appreciates the opportunity to review this DEIS, and is willing to work with BLM should you wish to discuss these issues further. If you have any questions, please call me at 202/564-5400 or have your staff contact Elaine Suriano at 202/564-7162.

Sincerely,



Anne Norton Miller  
Director  
Office of Federal Activities

Enclosure

### Environmental Impact of the Action

**LO - - Lack of Objections:** The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

**EC - - Environmental Concerns:** The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

**EO - - Environmental Objections:** The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

**EU - - Environmentally Unsatisfactory:** The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

### Adequacy of the Impact Statement

**Category 1 - - Adequate:** EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

**Category 2 - - Insufficient Information:** The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

**Category 3 - - Inadequate:** EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment, February, 1987.

### Responses for Document 00014

**00014-001:** Section 6.4.3 acknowledges that wind energy development on BLM-administered lands may require the construction of new transmission lines. Such construction is considered to be a separate but related activity and will require interagency cooperation and multidisciplinary environmental reviews. New text has been added to Section 6.4.3 to describe the existing and proposed rules and regulations governing wind project grid interconnections and transmission system upgrades. These regulations will be applicable to wind energy development projects on BLM-administered lands. Given the need for interagency cooperation regarding transmission line siting and approval, a more lengthy review of this issue is beyond the scope of the PEIS. The potential impacts of transmission system interconnects or expansions that would be required by an individual wind energy project on BLM-administered lands will be assessed as part of the site-specific analyses, with input from other federal, state, and local agencies, and interested stakeholders. These site-specific analyses will consider potential impacts on wetlands, water quality and wildlife habitat; stipulations will be developed for each project as an outcome of the site-specific analyses.

**00014-002:** Language has been added to Section 3.2 under Floodplains and Wetlands to indicate that such activities are governed by Section 404 of the CWA. No language change is needed in Appendix E, since the CWA is already listed under Table E-3, Floodplains and Wetlands.

**00014-003:** 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).

**00014-004:** The text has been changed in Section 4.4 and in the first paragraph of Section 5.4 to clarify that all activities must be carried out in conformance with the SIPs.

Document 00015

Howard G. Wilshire



3727 Burnside Road, Sebastopol, CA 95472

December 9, 2004

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

The following comments on the Draft PEIS on wind energy focus on Best Management Practices as they affect site evaluation, construction, operation, and decommissioning, p. 2-9 to 2-23, and mitigations to reduce adverse impacts on natural resources deriving from site evaluation, construction, operation, and decommissioning, p. 5-76 to 5-83, which are said to be the basis for the BMPs.

On page 6-3, it is stated that "Implementation of the proposed policies and BMPs would ensure that potential adverse impacts to most of the natural and cultural resources present at wind energy development sites...would be minimal to negligible..." [emphasis added].

It is further stated on page 6-28, that the proposed program "...would establish programmatic policies and BMPs to ensure that potential adverse effects resulting from wind energy developments on BLM-administered lands would be mitigated to the fullest extent possible."

These two statements are not equivalent, and neither provides any assurance that the well-known adverse impacts of centralized wind energy developments will be at all mitigated. The reason is that virtually all of the BMPs, and mitigations listed in Chapter 5, are permissive. "Requiring" the inclusion in PODs of BMPs couched in the language of "should be" and other similar terms offers no assurance that such BMPs or mitigations will be implemented.

15-1

It does not make any sense that such obvious mitigations as keeping the area disturbed to a minimum, minimizing the number, size/length of roads, fences, lay-down areas and borrow pits should be permissive BMPs. Why should operators have a choice in such matters as posting and enforcing speed limits, obtaining borrow material only from permitted areas, documenting hazardous material spills, to instruct employees, contractors, and visitors to not harass wildlife, deciding whether to salvage and reapply topsoil during final reclamation, and a host of other BMPs/mitigations all couched in permissive terms.

As it stands, the proposed Program, is not a suitable document to include by reference in any development plans because it does not impose any binding requirements on developers to mitigate the inevitable adverse impacts, and provides no support to BLM staff to secure those mitigations. This problem is simply resolved by converting the permissive language to mandatory language--replacement of "should" by shall, "could" by "will," etc., including in a very few cases, provisos—for example, use shall be made of existing roads except where they are found to be environmentally unsatisfactory.

Other Matters

On page 2-10, it is stated that a monitoring program shall be developed to monitor environmental conditions through all phases of development and decommissioning; it is further stated that the monitoring program should incorporate adaptive management strategies, yet on page 6-28 it is stated that "The proposed program would require the BLM to adopt adaptive management strategies regarding wind energy development." [emphasis added].

15-2

Access and site roads are major problems at existing wind developments. It is stated on p. 5-6 that access roads should follow contours and side hill cuts minimized. In hilly terrain roads can be designed to follow contour, but cannot avoid side hill cuts. Such roads are extremely damaging as sources of debris flows, and as sources of downslope damages caused by side-casting road development. Three mitigations might help: 1) prohibit side-casting (material that is removed to create the road notch must be hauled to a suitable location for use in decommissioning and stabilized); 2) introduce special methods to stabilize the cut slope face; 3) disallow side-slope turbine installations (so that only access roads present the side hill cut problems).

15-3

The issue of decommissioning is not dealt with adequately in this document. Doing it right will be expensive and time-consuming. To avoid problems so rampant in mining, decommissioning should be bonded at a level adequate to hire contractors to restore the site to a functioning natural state or to a state suitable for other planned use. Road removal is likely to be a major item in site restoration, and standards to achieve suitable restoration must be spelled out specifically. An explicit requirement should be a monitoring program designed to assure successful reestablishment of native vegetation.

15-4

Sincerely,



Dr. Howard Wilshire  
3727 Burnside Rd.  
Sebastopol, CA 95472

**Responses for Document 00015**

- 00015-001:** 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.
- 00015-002:** 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.
- 00015-003:** As many potential wind energy sites are located in hilly areas, construction of access roads, site roads, and turbine pads on hill slopes is likely to occur in the development of some projects. These issues are adequately addressed by the requirements of the proposed BMPs. As required by the proposed BMP under the Roads heading of Section 2.2.3.2.2, existing standards for road design, construction, and maintenance (e.g., BLM Manual 9113 and the “Surface Operating Standards for Oil and Gas Exploration and Development”) will be incorporated into an access road siting and management plan. In addition, the proposed BMPs require additional practices for stabilization of unstable slopes and the reduction of soil erosion (see, among others, Section 2.2.3.2.3 Construction, General, 7th bullet and Roads, all bullets). 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. Issues related to turbine location, access road construction, face stabilization, and soil erosion will be addressed during these analyses.
- 00015-004:** 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).

## Document 00016

ANADARKO PETROLEUM CORPORATION

P.O. BOX 50648 • CASPER, WYOMING 82601



November 23, 2004

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

RE: Wind Energy Development Draft Programmatic EIS

Dear BLM Manager:

Anadarko Petroleum Corporation (APC) appreciates the opportunity to comment on the referenced document. APC and its subsidiaries have considerable interests – both as a landowner and as a lessee of federal minerals - in the proposed analysis area that may be affected by the outcome of this planning effort. APC's interests as a landowner stem from its merger in 2000 with Union Pacific Resources. As a result of that merger, APC owns what is commonly referred to as the "land grant strip," which is almost 700 miles long and 40 miles wide. The strip passes through southern Wyoming and portions of Northeast Colorado and Utah. This land has the potential to be developed both for its mineral resources and its wind energy. Further, APC owns a large number of federal leases in the states that will be covered by this EIS.

The development of the Programmatic EIS, whether or not it results in amendments to individual land use plans, has the potential to affect APC's interests in these states. Therefore APC provided comments during the scoping process and will continue to actively participate in the EIS process.

In our December 19, 2003, letter APC requested that the DEIS address:

- *Management of mineral lease development on lands underlying wind farms that have been or may be permitted under a right of way.*
- *The interplay between issuance of competitive lease for wind energy and either existing or future leases for mineral resources*
- *Cumulative impacts (visual, wildlife etc.) from wind farm projects and the potential impact on the ability to develop resources on adjacent lands.*

APC does not believe that the probable interaction of wind energy projects and mineral development (e.g. oil and gas) is clearly described and analyzed. The document's discussion of potential impacts to mineral development is limited to statements that defer analysis of cumulative impacts until site specific information is available (DEIS at 6.4.1.13). Furthermore, the possible negative impacts from a wind energy project may have on the ability to develop leasable minerals is all but dismissed ("... the relatively

16-1

small amount of land required for wind energy projects and their typically isolated location means that the cumulative impact on other commercial uses of BLM-administered lands would likely be small.” (DEIS at 6.4.1.13). For instance, it appears that the Bureau of Land Management blindly assumed that owners of valid leases for minerals would be able to fully enjoy their vested rights if a wind energy project were to precede mineral development. This is not necessarily true given siting and access issues. The document fails to address the potential conflict between prior existing mineral leases and subsequent wind energy right-of-way requests.

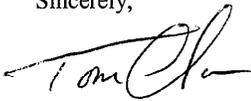
In stark contrast, BLM recognized the potential conflict between wind energy development and hard rock mineral development. BLM provides for the protection of valid existing rights of mineral claimants by restricting wind energy development to the degree that it does not “materially interfere with the claimant’s right to mine, remove, or sell the minerals”. APC believes that similar protections should be provided for other mineral development. The language on page 2-7 of the DEIS is not sufficient to address this issue. There, the BLM provides that:

To the extent possible, wind energy projects will be developed in a manner that will not prevent other land uses, including fluid minerals extraction, grazing, recreation use, and other ROW uses.

DEIS at 2-7.

It appears from statements made in the DEIS at 1-1 that BLM intends to continue granting access to federal lands for wind energy development pursuant to its existing right of way regulations, except in certain areas where BLM has determined that it will issue competitive leases. The DEIS lacks an analysis regarding the potential impacts of this decision. For example, the right-of-way regulations do not contain any provision authorizing BLM to require the payment of royalties. Presumably, private landowners will require payment of a royalty. Therefore, it is possible that wind energy development would be concentrated on public lands potentially causing a greater impact to public lands.

Sincerely,



Tom Clayson  
Environmental Affairs Coordinator

16-1  
(cont.)

16-2

### Responses for Document 00016

**00016-001:** As required by the Wind 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 stakeholders. Management and development of mineral resources, including conflicts with the proposed wind development project, will be among the issues assessed at the project-specific level.

The 2nd bullet in Section 2.2.3.1, Proposed Policies, has been revised. The specification “fluid” minerals has been deleted so that all mineral extraction activities are included.

**00016-002:** As stated in Sections 1.2 and 2.2.4, none of the alternatives in the PEIS include amendment of land use plans to provide for competitive right-of-way bidding, in part because interest in this approach was limited to two areas in California (the Palm Spring-South Coast Field Office and the Ridgecrest Field Office). If competitive bidding is conducted, it will be addressed on a case-by-case basis in local BLM land use planning efforts. The ROW authorization for wind energy development on BLM-administered lands will require the payment of rent rather than royalties. However, the formula used to calculate minimum rent payments incorporates a 3% royalty as part of the calculation (see Appendix A, BLM's Interim Wind Energy Development Policy). We agree that the proposed Wind Energy Development Program may increase use of BLM-administered land for wind energy projects. The potential impacts associated with that increased use are the primary subject of the PEIS. The proposed program will establish mitigation requirements to ensure that potential adverse impacts are minimized to the greatest extent possible. Development on non-BLM-administered lands would potentially be subject to less federal environmental oversight.

DEPARTMENT OF NATURAL RESOURCES  
AND CONSERVATION



JUDY H. MARTZ, GOVERNOR

1625 ELEVENTH AVENUE

STATE OF MONTANA

DIRECTOR'S OFFICE (406) 444-2074  
TELEFAX NUMBER (406) 444-2684

PO BOX 201601  
HELENA, MONTANA 59620-1601

December 9, 2004

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

The Montana Department of Natural Resources and Conservation (MDNRC) manages approximately 5 million surface acres of State owned land. This land is used to generate revenue for the School Trust funds. Our goal is to manage the State of Montana's trust land resources to produce revenue for the trust beneficiaries, while considering environmental factors, and protecting the future income-generating capacity of the land. The MDNRC is commenting in consideration of the potential for the full adoption, or partial adoption, of the PEIS on current and future projects.

The MDNRC has reviewed the Bureau of Land Management's (BLM's) Wind Energy Programmatic EIS (PEIS). The general effects of wind energy development are well covered in the PEIS, as well as possible mitigation actions. We see the advantages of completing a programmatic wind EIS; we would like to explore the possibilities of expanding the PEIS to a broader base. The expansion of the PEIS should cover the complex ownerships of fee, State and other federal lands. Attached is a map referencing the NREL wind priority regions in relation to the State of Montana lands. As you can see, the majority of the wind energy projects have a high possibility of encompassing State lands due to the complex interspersed ownership patterns. These complex ownerships are common in Montana and general throughout the Western United States.

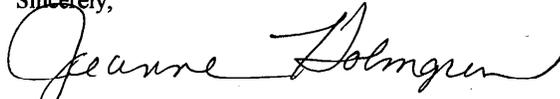
17-1

The MDNRC finds the Tiered ROD process as a promising way to make a more efficient and effective method for better site specific decision. We strongly endorse your development of comprehensive policies and best management practices (BMPs), as well as the use of tiering project-specific environmental analyses and decisions to the PEIS and its Record of Decision (ROD). However, the future MDNRC adoption of the PEIS's BMPs, mitigations, and stipulations would be made on a case by case basis as determined appropriate by the MDNRC.

17-2

We would like to commend you for your excellent work in the BLM PEIS. Please let us know how we can coordinate with BLM in the final development of the PEIS.

Sincerely,

A handwritten signature in cursive script that reads "Jeanne Holmgren". The signature is written in black ink and is positioned above the typed name.

Jeanne Holmgren, Chief  
Real Estate Management Bureau

Cc: Hoyt Richards  
Clive Rooney  
Mike Sullivan

**Responses for Document 00017**

- 00017-001:** 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. These consultations will provide an adequate opportunity for assessing the issues associated with interspersed ownership patterns.
- 00017-002:** Thank you for your comment. We appreciate your input and participation in the public review process.

## Document 18

David J. Ryzak  
617 E. 18<sup>th</sup> Way  
Burley, Idaho 83318

December 9, 2004

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

Dear Sir or Madam:

The following comments are in regards to wind energy development on BLM administered lands under the program designated as BLM's Draft Environmental Programmatic Environmental Impact Statement on Wind Energy Development. I recommend and support the Proposed Action — **Implement a Wind Energy Development Program**. The BLM can and should be a leader in supporting renewable alternative energy sources for the United States. The BLM administers large tracts of lands here in Idaho as well as in all western states. We all know that total energy consumption in the United States is increasing despite efforts by the government and private industry to encourage energy conservation. Energy consumption is growing because of several factors including the continuing increase in population, increasing per capita energy consumption, especially by the rich, the increasing average size of new homes and other living units with their energy consuming lighting, electronics, appliances, hot tubs, three car heated garages, etc.; increased size and opulence of public areas such as shopping centers, entertainment centers, sports arenas, government offices, etc.

Meanwhile the percentage of imported oil and natural gas continues to rise annually, making the United States ever more dependent on supplies of foreign oil; some of which is imported from countries which are politically unstable. Recently the price of imported oil went to \$55/barrel; a horrible shock to the economy. Although prices have fallen they will for sure go up again when a real or imagined threat to supplies occurs. In either case, world demand for oil continues to increase and there will be a time in the not too distant future when world demand will outstrip the world supply.

What should be done about this? The answer is to support development of alternative energy sources including wind, water, geothermal, oil shale, ethanol, solar, etc. The BLM can and should be a leader in the development of clean renewable energy resources to lessen if not stop our dependence on foreign oil.

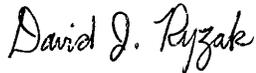
Unfortunately, current BLM regulations are clearly dampening the development of wind energy. The chart below taken from a newspaper article clearly shows that to be true.

Projected Wind Power Development in Idaho			
Idaho's wind power in megawatts			
	2005	2015	2025
Non-BLM	75	156	916
BLM	52	105	185
Total	127	261	1,101
% on BLM lands	41	40	17

The BLM needs to rewrite their regulations to encourage private industry to develop wind energy resources on BLM lands. Will a few sage grouse have to relocate? Yes. Will a few acres of sagebrush have to be removed? Yes. Will a few people have their favorite place in the world be developed? Yes. But look at the alternatives. How much pollution do you see on the news reports when oil pipelines and refineries get blown up in the Middle East? There's lots of it. How many millions of barrels of oil have leaked from ocean going super tankers over the years? Surely more than we would like to know about. How strong are the environmental laws in Russia and other former East Bloc nations? Their environmental record is very poor. So an alternative is to **Implement a Wind Energy Development Program.**

I tried to send you an e-mail at the address in the newspaper article: [windeis.anl.gov](mailto:windeis.anl.gov); however, it is not a valid address.

Sincerely,



David J. Ryzak

18-1  
(cont.)

**Response for Document 00018**

**00018-001:** Thank you for your comment. We appreciate your input and participation in the public review process.



THE STATE OF ARIZONA  
**GAME AND FISH DEPARTMENT**

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STEVE K. FERRELL



December 8, 2004

Bureau of Land Management  
Wind Energy Programmatic EIS  
Argonne National Laboratory EAD/900  
9700 S. Cass Avenue  
Argonne, IL 60439

Re: Draft Programmatic Environmental Impact Statement on Wind Energy Development on  
BLM-Administered Lands in the Western United States

Dear Sir or Madam:

The Arizona Game and Fish Department (Department) appreciates the opportunity to review and comment on the Bureau of Land Management's (BLM) draft Programmatic Environmental Impact Statement (DPEIS) on Wind Energy Development in the western United States. The Department supports establishing programmatic policies and Best Management Practices (BMPs) to guide the mitigation of impacts from wind energy development. Improved consistency provided by the Wind Development Program would be a beneficial streamlining effort with regard to the ROW application and granting process.

19-1

The Washington Department of Fish and Wildlife published guidelines pertaining to wind development project in August 2003. These guidelines outline steps for a pre-project assessment of the project area, including the following; a review of the existing information on species and habitats potentially influenced by proposed projects; mapping of vegetation, topography, and land cover types, wildlife habitat, habitat quality, and the extent of noxious weeds; and the development of an analysis process in cooperation with the state wildlife agency. More specifically, the Washington guidelines recommend conducting raptor nest, general avian, and threatened and endangered species surveys during the appropriate breeding seasons within 1-mile of the project site to determine the location of active nests and associated species potentially disturbed by construction activities. The Department appreciates that many of these recommendations have been incorporated into the BLM DPEIS.

19-2

However, the Department believes that habitat fragmentation issues, as well as direct and indirect effects to wildlife associated with site development are important aspects of planning that deserve more thorough development within the land use and wildlife sections of the document (specific comments are attached). The effects of wind developments on wildlife, in particular birds and bats, are well documented. These affects may include direct habitat loss from the wind plant footprint, including turbine base, access road, and substation construction; indirect habitat loss from increased human presence and/or turbine operation noise; habitat alteration, such as soil erosion and construction of migration-hindering obstacles; death by power

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line electrocution; and death by collision with structures, turbine blades or wires (Grand Canyon Trust, 2004).

19-2  
(cont.)

Although wind development opportunity has been rated relatively low in Arizona on BLM-administered lands, the Department has received several project proposals for wind plant development, mostly on private properties. We have emphasized the need to conduct post-construction monitoring to assess the validity of pre-construction predictions. Ongoing assessment will ensure that mistakes harmful to wildlife are corrected and not repeated. Similarly, we recommend that BLM emphasize and incorporate post-construction monitoring requirements into the DPEIS. This will improve the BLM's ability to provide sound guidance and policies for individual sites on a broader scale by recognizing the ecological distinctiveness of each wind resource area (not only in the case where thrcatcned and endangered species are present). We stand to learn a great deal more about wildlife interactions with wind plants after construction than we may be able to assess a priori.

19-3

Based on guidelines developed by the U.S. Fish and Wildlife Service (May 2003), factors to consider during the project evaluation process include regional topography, bird and bat migration routes, protected-bird habitats, and wind resource potential. The site specific nature of these recommendations (both by the USFWS and by the Washington Department of Fish and Wildlife) require a detailed NEPA analysis and evaluation of each proposed project, that is not possible through the use of a broad programmatic EIS. Consideration of this limitation should be made more evident in the DPEIS.

19-4

The Department appreciates the opportunity to provide comments on the BLM DPEIS. We look forward to working closely with the BLM to address wildlife concerns during future planning efforts for wind energy development on BLM-administered lands in Arizona. Please contact me at (602) 789-3605 if you have any questions regarding this letter.

Sincerely,



Bob Broscheid  
Habitat Branch Chief

BB:rfd

cc: Bruce Taubert, Assistant Director, Wildlife Management Division  
Regional Habitat Program Mangers  
Rebecca Davidson, Project Evaluation Program Supervisor, Habitat Branch

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**Arizona Game and Fish Department Comments on the Draft Programmatic EIS for Wind Energy Development on BLM-Administered Lands in the Western United States**

Chapter 2 – Proposed Action and Alternatives:

**2.2.1 Description of the Maximum Potential Development Scenario**

The screening criteria applied by the BLM to eliminate areas for wind energy projects currently includes 1) location of BLM-administered lands determined to be off limits for wind energy development by virtue of statutory or administrative controls (i.e., Wilderness Areas, Wilderness Study Areas, National Monuments, and National Conservation Areas), and 2) occurrence of Class 3 or higher wind resources. The BLM is required by provisions in the Endangered Species Act to consider actions that would prevent the future listing of species, as well as to assist in the recovery of listed species. Therefore, the Department recommends additional screening criteria that includes areas where state or federal species of concern or listed species (and/or their critical habitat) are known to occur.

19-5

**2.2.2 Phases of Wind Energy Development on BLM-Administered Lands**

Although decommissioning of a site once developed is included in the analysis, the DPEIS should also include an analysis of reclamation efforts to bring the developed land back as close to a pre-development state as possible. Site reclamation efforts should also be included in section 2.2.3.2.2 “Plans for Development Preparation” in the discussion of monitoring.

19-6

**2.2.3.2.2 Plan of Development Preparation**

*Wildlife and Other Ecological Resources*

The BMP requiring installation activities to be conducted outside of wildlife breeding seasons should be further emphasized. The guidelines provided by the Washington Department of Fish and Wildlife state that a 1-mile distance from the project site should be evaluated. This recommendation should be incorporated into the BMPs to minimize disturbance to breeding wildlife. The BMP should also address the impacts of project installation and operational activities on dependant young.

19-7

The BMPs state that known bird migration routes and high usage areas should be avoided. We recommend that the BMP better define these areas and *require* that they be avoided. The same measures should be taken with respect to areas known as migratory pathways for bats.

19-8

As with the BMPs for installation activities, the specific wildlife BMPs should address impacts to dependent young and how to minimize impacts to this group of animals. Likewise, with the exception of birds, the document does not address wildlife movement corridors for other species.

19-9

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*Excavation and Blasting Activities*

The BMP states *excess excavation materials should be disposed of only in approved areas*. In the event of excess excavation materials, these materials should be used during the reclamation process. If that is the intent of BLM, please provide clarification.

19-10

*Noise*

The BMP states that *stationary construction equipment (compressors and generators) be located as far as practicable from residences*. This BMP should also include wildlife breeding and brooding areas.

19-11

**2.6.2 Comparison of Environmental Impacts**

Although the Wind Energy Development Program will likely minimize the overall environmental impacts within the region (western United States), it is possible that analysis at the regional level will not adequately address more localized yet important and possibly intensive impacts. It should be emphasized within the DPEIS that project specific environmental analysis should not be overlooked.

19-12

Chapter 3 – Overview of Wind Energy Projects:

**3.1.1 Site Monitoring and Testing Activities**

The BMPs presented in Chapter 2 of the document include the minimization of guy wires and above ground support structures or wiring. If guy wires and other similar support equipment are deemed necessary, then BMPs need to be established to increase the visibility of these structures to birds and bats, as well as making them unappealing to birds as perches or roost sites.

19-13

**3.1.2 Site Construction Activities & 3.1.2.1 Site Access, Clearing, and Grade Alterations**

Similar to the concern brought up in section 3.1.1, some activities identified in these sections are counter to what is proposed in the BMPs identified in Chapter 2. The Department understands that the BMPs are guidelines and do not have a regulatory function, and that the logistics of individual site locations might make full compliance with BMPs impracticable. In these cases, we recommend that the BMPs be applied to approved applications and incorporated to the fullest extent possible.

19-14

**3.1.2.4 Miscellaneous Ancillary Construction**

To address fugitive dust BLM is proposing water spraying (pg.2-19 *Air Emissions*). Developers of the proposed Table Mountain Wind Generating Facility anticipate using an average of 120,000 gallons of water per day during construction to effect adequate dust control. Where no municipal water sources are available, BLM suggests that water might be obtained from nearby surface water features. The BLM must ensure that water sources are accounted for, and environmental impacts be analyzed to assess impacts to aquatic systems and organisms. We recommend that alternative dust abatement measures be included in the proposed alternative.

19-15

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### 3.1.4 Site Decommissioning

Although this section addresses the reclamation of the site through plantings with indigenous vegetation, it does not provide for monitoring to ensure that the actual reclamation efforts are successful with regard to native vegetation establishment. This section should also address the possibility of invasive species encroachment to the area, and any necessary remediation and/or control of such species.

19-16

### 3.2 Regulatory Requirements for Wind Energy Projects

The BLM is required by provisions in the Endangered Species Act to consider actions that would prevent the future listing of species, as well as to assist in the recovery of listed species. There appears to be a discrepancy between the mandate to protect and improve habitat for federal listed species and BLM sensitive species and the evaluation of projects to *ensure that they will not contribute to the need to list the species as threatened or endangered*. We believe that protection and improvement of habitat for species of conservation concern differs from ensuring that project activities will not contribute to the need to list a species as threatened or endangered. As mentioned earlier, we recommend that stronger measures be considered under the screening criteria (described in Chapter 2) to eliminate areas from consideration from development if they fall within known areas of occurrence of threatened or endangered species (and their critical habitats), and other particularly sensitive species.

19-17

### 3.4.2 Solid and Hazardous Wastes

The determination of which wastes to deem as hazardous is to be determined by the project operator. To avoid inconsistent determinations, BLM should provide a comprehensive and standardized list (similar to the list provided on pages 3-22 to 3-24) of all known hazardous substances that are commonly associated with the construction, operation and decommissioning of wind energy projects. This list should be maintained regularly or as technological advances in wind energy production are made. This regular maintenance will help provide a consistent understanding among all wind energy project operators and the BLM as to what substances are hazardous and need to be treated and handled as such.

19-18

## Chapter 4 – Affected Environment:

### 4.6.2.2 Birds

This section does not provide information regarding the migration pathways of birds outside of the standard flyways attributed to waterfowl and to a lesser extent, shorebirds. Flyways used by passerines and raptors are not represented in the document. Passerines are frequently the primary group of species documented as suffering negative impacts as a direct or indirect result of wind energy development. Therefore, we recommend that the migration pathways of raptors and passerines be addressed in the document.

19-19

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Chapter 5 – Potential Impacts of Wind Energy Development and Analysis of Mitigation Measures:

**5.9.3.2.6 Disturbance of Wildlife – Box, page 5-70**

The Department supports the mitigation bullets, but recommends adding a third measure:

“To the extent possible, post development mortality studies should be a part of the site development plan, to determine if or to what extent mortality occurs.”

19-20

**5.9.5.4 Mitigation During Operation**

Post construction monitoring is essential because of the limited information currently available on impacts of wind turbines on bats and other wildlife. An appropriate monitoring effort (dependent on the potential for impacts to wildlife) should be developed at each site to determine if or to what extent mortality occurs. Monitoring should occur for other key species of concern, as well as federally listed species.

19-21

Chapter 6 – Analysis of the Proposed Action and Its Alternatives

**6.1.2 Environmental Impacts**

Under the DPEIS, project operators will be required to collect and review information regarding protected species and sensitive habitats at the project site and to design the project to minimize or mitigate impacts. The Department supports this requirement, and would add some additional analysis at a regional or landscape level to ensure that cumulative impacts to species and habitats are also addressed. This will ensure a better level of protection against habitat fragmentation and degradation of habitat.

19-22

Literature Cited

Grand Canyon Trust. 2004. Wind Energy Development and Avian Effects in Northern Arizona: A Review of the State of Current Knowledge and Recommendations for Minimizing Impacts.

U.S. Fish and Wildlife Service. May 2003. Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines. U.S. Department of the Interior. Washington, D.C. [www.fws.gov/r9dhcbfa/windenergy.htm](http://www.fws.gov/r9dhcbfa/windenergy.htm)

Washington Department of Fish and Wildlife. August 2003. Wind Power Guidelines. <http://wdfw.wa.gov/hab/engineer/windpower/index.htm>

### Responses for Document 00019

- 00019-001:** Thank you for your comment. We appreciate your input and participation in the public review process.
- 00019-002:** As required by the Wind Energy Development Program proposed policies and BMPs, a variety of site- and species-specific analyses, including surveys for important habitats and wildlife abundance and use, will be conducted for any wind energy project proposed for BLM-administered lands. In addition, the policies and BMPs require the development of invasive weed and invasive species control plans and monitoring plans, as well as the avoidance of raptor nests and bat roosts, and consideration of other important ecological factors (see Section 2.2.3.2.2). The scope and approach of these site- and species-specific analyses, as well as details for any monitoring plans and noxious weed control plans, 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, design, operation, mitigation, monitoring, and decommissioning stipulations for incorporation into the POD. The identification of detailed site-specific analyses and stipulations is beyond the scope of the PEIS. No text change has been made to the document in response to your comment.
- 00019-003:** 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. The BLM is committed to full implementation of the proposed Wind Energy Development Program, elements of which require the incorporation of adaptive management strategies and monitoring programs at all wind energy development sites (see Section 2.2.3.1 Proposed Policies, last bullet, and Section 2.2.3.2.2, Plan of Development Preparation, General, 7th bullet). The application of adaptive management strategies will ensure that programmatic policies and BMPs will be revised as new data regarding the impacts of wind power projects become available. The monitoring program requirements include not only postconstruction monitoring, but also monitoring during construction and decommissioning. The scope and approach of the monitoring program 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 monitoring stipulations for incorporation into the POD that will encompass construction, operation, and decommissioning activities.
- 00019-004:** As discussed in the 9th bullet under Section 2.2.3.1, Proposed Policies, site-specific NEPA analyses will be conducted on all wind energy development projects on BLM-administered lands. 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. In certain instances, it may be determined that a tiered EA is appropriate in lieu of an EIS.

- 00019-005:** Exclusions of any additional areas from wind energy development 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 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. This process will address issues related to federal- and state-protected species and their critical habitat. Through this process, the BLM will develop project-specific stipulations for incorporation into the POD.
- 00019-006:** 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.
- 00019-007:** The identification and specification of any exclusion areas from wind energy development 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 will be conducted for any proposed project on BLM-administered lands, and these analyses will provide the basis for the identification of project-specific exclusion areas. The scope and approach for site-specific analyses, as well as the specifications for any exclusion areas, 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, exclusion, and design stipulations for incorporation into the POD. The stipulation of specific exclusion areas is beyond the scope of the PEIS. No text change has been made to the document in response to your comment.
- 00019-008:** 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. In addition, the BMPs related to identifying important habitat, such as high bird usage areas, has been reworded to include a requirement that impacts to these habitats be avoided, if possible. 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 in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this process, which will address the presence of known migration pathways and high usage areas, the BLM will develop project-specific stipulations for incorporation into the POD. Site-specific analyses are beyond the scope of the PEIS.

**00019-009:** As required by the Wind Energy Development Program proposed policies and BMPs, species-specific analyses, including evaluations of young and the identification of mitigation measures, will be conducted for any proposed project on BLM-administered lands. The scope and approach for species-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. Species-specific analyses are beyond the scope of the PEIS.

Sections 5.9.2.2.8 and 5.9.3.2.7 discuss potential impacts to the movements of biota other than birds and bats, including elk and deer.

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

**00019-010:** The Wind Energy Development Program proposed BMP in the 3rd bullet under Excavation and Blasting Activities in Section 2.2.3.2.3, Construction, has been changed to clarify that suitable excavated materials can be stockpiled for use during reclamation.

**00019-011:** 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, which will address issues related to noise impacts on wildlife, the BLM will develop project-specific stipulations for incorporation into the POD. Site-specific analyses are beyond the scope of the PEIS.

**00019-012:** As discussed in the 9th bullet under Section 2.2.3.1, Proposed Policies, site-specific NEPA analyses will be conducted on all wind energy development projects 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.

- 00019-013:** The proposed BMPs include requirements to design facilities to discourage their use as perching or nesting substrates and to prohibit the use of guy wires on permanent meteorological towers (see the Wildlife headings under Section 2.2.3.2.2, Plan of Development Preparation, and Section 2.2.3.2.3, Construction). Empirical evidence does not exist to prove that bird deterrent devices designed to make wires more visible to birds are effective at reducing bird kills. Therefore, such devices will not be required by the BLM. However, the application of adaptive management strategies, as required by the proposed program, will ensure that programmatic policies and BMPs will be revised as new data regarding impacts and effective mitigation measures become available. This would include new data regarding the effectiveness of bird deterrent devices.
- 00019-014:** Section 3.1 provides information describing activities likely to occur on typical wind energy development projects during each of the major phases and is not limited to a description of what activities will be allowed on BLM-administered lands. The proposed BMPs presented in Section 2.2.3.2 provide minimum standards for the development of all wind energy projects on BLM-administered lands. All of the BMPs have been rewritten to make them requirements for projects on BLM-administered lands rather than recommendations. The manner in which each BMP will be implemented for a specific project will be determined during the required site-specific analyses.
- 00019-015:** Section 3.1 provides information describing activities likely to occur on typical wind energy development projects during each of the major phases and is not limited to a description of what activities will be allowed on BLM-administered lands. Water spraying was provided only as an example dust abatement technique in Section 2.2.3.2.3, Construction, Air Emissions, 1st bullet. Other techniques tend to be costly, adversely impact plants and animals, or simply be impractical. Any measures to mitigate fugitive dust at specific sites will be determined as part of the site-specific analyses that will be conducted as required by the proposed policies and BMPs for any proposed project on BLM-administered lands. The proposed BMPs have been rewritten to remove any indication that water is the preferable method for dust abatement.
- 00019-016:** Section 3.1 provides information describing activities likely to occur on typical wind energy development projects during each of the major phases and is not limited to a description of what activities will be allowed on BLM-administered lands. As stated in Section 2.2.3.2.5, Decommissioning, the first BMP specifies that all stipulations, BMPs, and management plans developed for construction of a wind facility shall be applied to similar activities during decommissioning. In addition, 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. With specific regard to the control of noxious weeds and

invasive species, one of the BMPs for the construction phase (Section 2.2.3.2.3), which would be applicable during decommissioning, requires the development of a plan to control noxious weeds and invasive species.

- 00019-017:** Exclusions of any additional areas from wind energy development 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. The 2nd bullet under the Wildlife and Other Ecological Resources heading in Section 2.2.3.2.2, Plan of Development Preparation, has been reworded to require that projects be designed to avoid (if possible), minimize, or mitigate impacts to federal- and/or state-protected species or other species of concern. Site-specific analyses required by the proposed policies and BMPS will address specific issues associated with these species. These site-specific analyses will be conducted 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.
- 00019-018:** Federal regulations promulgated under the authority of the Resource Conservation and Recovery Act (RCRA) explicitly define what constitutes a hazardous waste. (See 40 CFR Part 261.) Under those rules, the generator is responsible for determining whether his wastes meet the definition of a hazardous waste. (See 40 CFR 262.11.) This determination can often be accomplished by the application of process knowledge (i.e., knowing the constituency or physical and chemical characteristics of the material or substance that is now being recovered from a process or activity as a waste). When process knowledge is not fully available or otherwise does not allow for a sufficient determination, the generator must test a representative sample of his particular waste, utilizing all applicable testing methodologies specified in regulations. State hazardous waste regulations take a similar approach, obligating the generator to determine if their waste is hazardous. The BLM has no intention of assuming these regulatory responsibilities from wind farm operators. Because the specific chemicals that could conceivably be used in the construction and operation of a wind farm are myriad, and because state hazardous waste program wastes listings vary, the suggestion that the BLM be responsible for developing a "comprehensive, standardized list" is infeasible.
- 00019-019:** The flyways discussed in this section are applicable to most birds. The source document discusses warblers, sparrows, raptors, and others in addition to waterfowl, and the PEIS text cited in the comment states "Birds migrating north from wintering areas to breeding areas use these pathways in the spring, and birds migrating southward to wintering areas use them in the fall. Each flyway encompasses broad geographic areas and includes many specific routes and subroutes, the use of which varies by species. Consideration of these more specific routes will be an important parameter for identifying site-specific concerns related to migratory birds."

The BMPs and policies of the proposed Wind Energy Development Program require operators to evaluate avian use, which includes migratory patterns, of the project area and design the project to minimize or mitigate the potential for bird strikes. Thus, the evaluation of avian migratory activities will be conducted at the project- specific level in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this process, the BLM will develop project-specific design and siting stipulations for incorporation into the POD that have incorporated site-specific and species-specific considerations of avian migration at the project area. No text change has been made to the document in response to your comment.

**00019-020:** As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, including the development of an appropriate monitoring program, will be conducted for any proposed project on BLM-administered lands. The scope and approach for site-specific monitoring 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 monitoring stipulations for incorporation into the POD. No text change has been made to the document in response to your comment.

**00019-021:** As specified in the Wind Energy Development Program proposed policies and BMPs, a monitoring program will be required for all wind energy projects proposed for BLM-administered lands. The scope, focus, and approach of the monitoring program, which must address the construction, operation, and decommissioning phases of the proposed project, 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 monitoring stipulations for incorporation into the POD.

**00019-022:** Habitat loss and habitat fragmentation will be evaluated on a project by project basis. A new BMP has been inserted in Section 2.2.3.1, Proposed Policies, to ensure that site-specific NEPA analyses will identify and assess any cumulative impacts that are beyond the scope of the cumulative impacts addressed in the PEIS.

# UINTAH COUNTY



STATE OF UTAH  
*Our past is the nation's future*

December 9, 2004

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Mr. Ray Brady  
BLM Wind Energy Programmatic EIS  
Argonne National Laboratory EAD/900  
9700 S. Cass Avenue  
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RE: Draft Programmatic Environmental Impact  
Statement on Wind Energy Development on  
BLM-Administered Lands in the Western  
United States

Dear Mr. Brady,

Thank you for the opportunity to comment on the Draft Programmatic EIS on Wind Energy  
Development on BLM Administered Lands in the Western United States.

The following are our comments regarding the document:

3-20 3.36 Shadow Flicker

The American Wind Energy Association (AWEA) compared the US with Europe and said in Europe shadow flicker has been considered a serious issue, but in the US shadow flicker is generally not considered as significant in the US. AWEA states that "shadow flicker is not a problem during the majority of the year at US latitudes." The latitude of France and Oregon are approximately the same. There is nothing to indicate why it is felt they are not considered significant in the United States.

20-1

Chapter 4

There is no discussion in the document of the effects that such developments will have on wind currents which may effect bird migrations, air quality and other such resources or activities. It would appear that depending upon the size of a project there could be considerable impact on wind currents. These issues should be discussed.

20-2

4-22, 4.6.2.2.6

The second full paragraph states Federal agency and USFW must work together to minimize impacts to migratory birds. Will this action take place before or after the turbines are installed? Will this be a local or National effort? How will this affect the Migratory Bird Act?

20-3

For the eleven study states the document lists a high number of threatened and endangered

20-4

species existing. According to table 5.9.3.3 turbine related fatalities are quite high. It would appear that despite protections in mitigation measures proposed in this draft that there will be unpreventable fatalities of threatened and endangered species. The document fails to analyze or disclose potential impacts on them.

20-4  
(cont.)

Although this is a programmatic document and that it provides for additional environmental NEPA analyzes at the local level when a project is proposed the adequacy of analysis on local culture and tradition were not adequately addressed in this document. Most of the cultural discussion of this document was directed at sites and artifacts, but did not address life styles aspect of culture resources. The West has a history and persona of open space, grand vistas and has steeped traditions in Western culture. Wind energy development is not consistent with local culture and values and such developments would create huge impacts on these values.

20-5

Overall the document fails to address the advisability of wind development in general. There is no discussion in efficiency or impacts of such development compared to other energy sources such as comparing efficiencies, surface damages, duration of impacts, etc.

20-6

Sincerely,

UINTAH COUNTY COMMISSION



David J. Haslem, Chairman



Michael J. McKee



Jim Abegglen

**Responses for Document 00020**

- 00020-001:** Text was revised in Section 3.3.6 to point out that it is relatively straightforward to calculate where and for how long a flickering shadow would fall in a given location near a wind farm. If shadow flicker is expected to be a problem from the operation of a wind turbine, site-specific recommendations for mitigation would be incorporated into the project design.
- 00020-002:** One factor affecting the spacing between wind turbines in a wind farm is the need to keep wind current disturbances caused by one turbine from affecting the other turbines. These disturbances would also be smaller than those associated with buildings of the same height. Thus, the spatial scale of the disturbances is small compared with the scale of wind patterns and, therefore, is unlikely to affect bird migration and would not affect air quality. In addition, wind turbines are only capable of extracting a fraction of the kinetic energy from the incoming air and thus have little impact on the overall wind currents. No text change has been made to the document in response to your comment.
- 00020-003:** As specified in the Wind Energy Development Program proposed policies and BMPs (see Sections 2.2.3.1 and 2.2.3.2, respectively), these activities will be conducted during project planning and plan development, and will be used in facility siting and design. These policies and BMPs will be required for any wind energy project proposed for BLM-administered lands. In addition, the development of any wind energy project on BLM-administered lands will be required to comply with all applicable federal regulations, including the Migratory Bird Treaty Act (see Section 4.6.2.2.6).
- 00020-004:** Potential impacts to threatened and endangered species are discussed in Section 5.9.3.4. As stated in this section, the siting of wind energy projects would require compliance with the Endangered Species Act and other applicable laws, regulations, policies, program guidance, and management plans (e.g., FLPMA), and such compliance would make it unlikely that a wind energy project would be sited in a location known to have one or more federal listed species. The siting and design of a facility would also be conducted in coordination with federal, state, and local agencies, and interested stakeholders, so as to avoid or minimize, to the maximum extent possible, impacting threatened and endangered species. The siting, construction, and operation of a wind energy project on BLM-administered land would be conducted in compliance with *BLM Manual 6840 — Special Status Species Management* (BLM 2001), which provides policy and guidance for the conservation of special status species and the ecosystems on which they depend. The incorporation of these laws, policies, guidance, and coordination would be conducted on a project-by-project, site-specific basis, and is beyond the scope of this document.

**00020-005:** As stated in the text, the National Historic Preservation Act of 1966 as amended requires the assessment of a project's effects on traditional cultural properties as well as on archaeological sites and artifacts.

**00020-006:** 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. The BLM has focused on wind energy development in this PEIS in part in response to the number of ROW applications it has received. Section 6.4.2 provides a brief discussion of the impacts of wind energy development as opposed to other sources of energy with respect to land area disturbance, air quality, water use, and waste generation. A comprehensive analysis of other energy sources compared with wind energy is beyond the scope of the PEIS.