

December 10, 2004

**Comments on the Bureau of Land Management's  
Draft Programmatic Environmental Impact Statement (DPEIS) on Wind Energy  
Development on BLM-Administered Lands in the Western United States**

**In summary**, there are serious problems with the draft Programmatic Environmental Impact statement (PEIS). The comments that follow are focused primarily on the portions of the draft that deal with the economics of wind energy development.<sup>1</sup> The data and conclusions reflected in those parts of the draft are invalid because:

- Major elements of the true costs of producing and delivering electricity from wind energy have not been taken into account.
- The “economic model” underlying the economic analysis is defective.

It is important that Department of the Interior (DOI) and Bureau of Land Management (BLM) officials recognize that much of the information relied on by those drafting the statement has come from organizations that promote wind energy development.<sup>2</sup> This information is often biased and should not be relied on as a basis for BLM decisions.

The net effect of the deficiencies is that the draft PEIS grossly overstates the potential benefits of wind energy while grossly understating the true costs. In fact, it is far from clear that the PEIS justifies *any* development of wind energy on BLM-administered lands. Any conclusions in that regard will have to await correction of the fundamental deficiencies in the economic analysis.

DOI and BLM officials should also be aware that much of the information distributed during the past decade by the wind industry and other supporters of wind energy development is biased. However, as development of wind energy has occurred in US and other countries, problems with its development and facts about its true costs have begun to emerge.

Even a casual review of the literature about wind energy from around the world reveals information about problems caused and costs incurred when wind energy is developed. There does not appear to be any valid reason why those who have developed the draft PEIS should ignore the problems and the true costs and chose to rely on only the literature, economic models, and data that are favorable to wind energy development.

Clearly, DOI and BLM officials have a responsibility to act in the public interest, and not limit their consideration to information favorable to the development of wind energy. In particular, DOI and BLM officials should note that the draft PEIS largely ignores the interests of electricity customers and taxpayers who would bear the burden of higher cost of electricity from wind energy and taxpayers who would bear the burden paying for the tax breaks, other subsidies and other economic benefits achieved by “wind farm” developers and owners.

In addition to the primary focus on the economic deficiencies of the draft PEIS, the detailed comments that follow also mention one key safety problem that has been ignored and identify an omission in the sections on decommissioning. Further, DOI and BLM officials should be aware

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that the two studies cited as justification for the draft PEIS conclusion that property values are not adversely affected by wind energy development have been publicly discredited because of deficiencies in methodology, assumptions and factors considered.

Before proceeding, BLM needs to do a complete and objective economic analysis, avoid reliance on biased information from wind energy advocates, and take into account the full, true environmental, energy and economic costs of wind energy development.

#### Detailed comments

- A. **Economic Analysis Deficient.** The PEIS Executive Summary (page ES-1) states, in part, that “The objectives of the draft PEIS are to (1) assess the environmental, *social, and economic* impacts associated with wind energy development on BLM-administered land....” (Emphasis added). This certainly is a valid and necessary objective but it has not been pursued adequately in the PEIS. Critical deficiencies, as detailed below, include:
- Failure to consider key elements of cost that would be borne by the public (particularly electric customers and taxpayers),
  - Reliance on “economic models” that are demonstrably flawed, including economic models developed by or for DOE’s National Renewable Energy Laboratory (NREL).<sup>3</sup>

The JEDI or Wind Industry Model developed for and distributed by NREL for use in calculating state or local economic impacts, which model is referred to in the draft PEIS is demonstrably deficient in that it grossly overstates economic benefits and understates some economic costs and ignores other real economic costs. Attachment #1 to these comments is a paper describing and demonstrating deficiencies and errors in that model. That paper should be considered an integral part of these comments on the BLM’s draft PEIS

BLM has an obligation to represent the public interest, not the interests of the wind industry or other wind energy supporters.

1. **The concept of the *economic cost* of electricity from wind energy reflected in the PEIS is incomplete.** The wind industry and its supporters (including DOE<sup>4</sup> and NREL) typically ignore large elements of the full, true costs of electricity from wind energy and, unfortunately, this basic error has been perpetuated in BLM’s draft PEIS. Only during the past year or two has the truth about the full, true costs of wind energy begun to emerge in public discussions.

The true cost of electricity from wind energy borne by the public is NOT the price claimed by wind energy supporters OR that charged by “wind farm” owners. Key elements of the full, cost that are typically omitted (and not considered adequately in BLM’s document) include the following:

- a. **Real costs ultimately borne by electric customers not considered in BLM PEIS, but which show up in monthly electric bills.**
- 1) Backup power costs. Wind turbines produce electricity only when the wind is blowing in the right speed range.<sup>5</sup> Their output is intermittent, highly volatile

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from minute to minute, and largely unpredictable (except in the very short term). Because of these limitations, reliable (“dispatchable”) generating units must be kept immediately available to keep the grid in balance (supply-demand, voltage, frequency). These back up units must be running in automatic generation control (AGC) mode, at less than full or optimum capacity, or in spinning reserve mode.

Providing this backup power involves costs and those costs (in whole or part) are properly attributed to the cost of wind energy. Also, recognize that ramping generating unit output up and down tends to add to unit wear and tear cost on those backup units

- 2) Costs of providing reliable generating capacity. Because wind turbines cannot be counted on to be available when needed to satisfy electricity customer demand (that is, they have little, if any, “capacity value”), sufficient reliable generating capacity must be built and maintained to assure that adequate capacity is always available. This, too, involves costs for building and maintaining that capacity even if it is not fully utilized. Those costs must be recovered in some way and are almost certain to end up in monthly electric bills. Wind generating capacity does not replace the need for reliable generating capacity.
- 3) Higher cost of providing transmission capacity for electricity from wind turbines. Transmission costs are inherently higher for electricity from wind turbines for at least three reasons:
  - The first reason is due to the intermittence of wind generation. In practice, enough transmission capacity must be available to handle the full rated output of a “wind farm.” However, that full capacity is not used efficiently and effectively because of the intermittent availability of the electricity output
  - The second reason is that windmills, because of their large size, noise and other factors, tend to be found acceptable in areas that are remote from populated areas. The practical effect is that electricity from wind is likely to have to travel over longer distances and, therefore, “line losses” tend to be higher than for generating units that are located near load centers.
  - The third reason is that areas where siting of windmills may be acceptable tend to be in areas where adequate transmission capacity is less likely to be available. At least two states (Minnesota and Texas, as well as other countries such as Denmark and Germany) have found it necessary to add expensive transmission capacity to serve “wind farms.” Such costs are appropriately counted as part of the full, true cost of electricity from wind. In any case, these costs end up in electric customers’ monthly bills even if this is not clearly admitted by the wind industry, regulators, or advocacy groups.

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- 4) Grid management costs to maintain reliability. Because of intermittence, volatility and unpredictability, “wind farms” tend to detract from grid reliability and, therefore, require greater care to assure integration into electric grids. This is an additional cost factor.
- 5) Mandated “Renewable Portfolio Standards“ (RPS) add to consumer costs. RPS requirements specify minimum shares of electricity that must come from “renewables” have been adopted by some states and applied to government buildings and activities in other states. Electricity from wind is inherently more costly than alternative existing sources of electricity. These costs are passed on to consumers. The fact that RPS create artificial, high cost markets also helps push up customers’ costs.
- 6) “Green energy” programs mandated or encourage for electric utilities also add to electric customer costs. Typically, these programs provide that electric customers are to be given the option of purchasing “green” electricity – i.e., electricity produced from certain renewable energy sources – if they are willing to pay a premium price for that electricity.

To the extent that customers volunteer to pay premium prices, there should be no objection. However, nationally less than 1% of the customers of 100+ electric utilities offering such programs “volunteer” to pay the premium prices. The premium revenue collected by the utilities is not enough to cover the utilities’ costs of buying the high cost renewable-generated electricity and the cost of administering the programs. The result is that the costs that are not recovered through premium payments are passed on to all the utilities’ customers, adding to their monthly bills.

- b. **Real costs borne by ordinary taxpayers that have not been taken into account in BLM’s draft PEIS “economic analysis.”** Wind energy is now one of the most heavily subsidized sources of electricity in the US *when considered in light of its existing and potential contribution toward supplying US electricity requirements.*

The tax breaks and other subsidies currently available for commercial-scale wind energy have led to a situation where the principle motivation for building “wind farms” is tax avoidance – not their environmental, energy or economic benefits. BLM should not be encouraging misallocation of resources. The federal, state and local tax breaks and other subsidies which run in the hundreds of millions annually include:

- 1) Federal five-year double-declining balance accelerated depreciation (MACRS<sup>6</sup>) which permits “wind farm” owners to deduct 20% of the capital cost<sup>7</sup> of a “wind farm” from otherwise taxable income in the 1st tax year, another 32% in the 2nd tax year, and the remainder over the succeeding four tax years.<sup>8</sup>

- 2) A ten-year, \$0.018 per kilowatt-hour (kWh) Production Tax Credit which permits the owners of “wind farms” or their parent companies to deduct additional millions of dollars each year from their tax liability.
- 3) In states that conform their corporate income tax system to the federal system, the five-year double declining balance accelerated depreciation also serves to reduce “wind farm” owners’ income that would otherwise be subject to state corporate income tax. *This loss of revenue has not been taken into account in the BLM draft PEIS.*
- 4) Dozens of state and local government tax breaks, enacted in response to wind industry lobbyists, including (depending on the state) state production tax credits, reductions in or exemptions from business and occupation taxes, sales and use taxes, and state and local property taxes. In some states, some of the taxes have been eliminated and in others have been reduced substantially. *These losses of revenue have not been taken into account in the BLM draft PEIS.*
- 5) Direct DOE subsidies (via contracts, grants and subcontracts) for wind energy R&D and for wind promotional activities carried out by DOE “national laboratories,” trade associations and numerous “non-government organizations” that have been created to promote expensive “renewable” energy. These, too, are a real economic cost and money involved almost certainly could have been used more effectively elsewhere, particularly if left in the private economy.
- 6) Similar state subsidies (e.g., in California), some of which are paid from appropriated funds and some provided from funds collected via consumers’ monthly electricity bills and often labeled as “public benefit funds.” These also are a real economic cost.

2. **The “economic analysis” in BLM’s PEIS has another fundamental deficiency.** The higher true costs of electricity from wind energy – including the hidden costs for electric customers and taxpayers described above -- that less money is available for other uses and is, therefore, a net “drag” on those sectors of the local, state or national economy where those incremental funds would otherwise be spent or devoted to savings.

For example, the higher true cost of wind energy borne by electric customers and taxpayers means that less money is available for other uses including, for residential customers, spending on food, clothing, shelter, medical expenses, education, and other purposes (e.g., spending in local hardware stores, dry cleaners and other retail establishments). Also, less money is available for savings.

- B. **Claims of costs per kWh of electricity from wind generation distributed by the US Department of Energy (DOE) and DOE’s NREL are not valid or reliable.** DOE, NREL, the wind industry and other wind advocates often distribute information purporting to show the costs per kWh of past, current and potential future wind turbine generation.

Apart from all the real costs that are excluded from the DOE and NREL calculations, it must be recognized that the DOE<sup>9</sup> and NREL numbers are not valid or reliable.

The principle reason the numbers are invalid, unreliable and, really, quite meaningless is that they are based on three assumptions that have no basis in fact; specifically:

- That the useful life of the wind turbines is known. Often it is assumed that the useful life will be 20 or 30 years. Keep in mind that “wind farms” require very large capital cost compared to other generating sources. In fact, there is no long-term experience with the large (1+ MW) turbines now being installed to predict their life expectancy. If those turbines turn out to have a useful life of 10 years rather than 20, the actual costs per kWh of the electricity they produce over the 10 years would be nearly double the cost estimates based on a 20 year useful life assumption.
- Actual costs of operating, maintaining, repairing and replacing wind turbines over their useful life is unknown for the same reason noted above; i.e., no long term experience. Some “wind farms” have experienced many unexpected turbine failure problems.<sup>10</sup>
- Actual performance – in terms of kWh output -- over their useful life is unknown, again, because there is no long term experience with today’s turbines and blades. It is known that performance of wind turbines deteriorates over time for a variety of reasons, including blade fouling.

- C. BLM’s PEIS does not adequately reflect the fact that electricity from wind turbines has less value than electricity from reliable generating sources and detracts from, rather than adds to, electric system reliability.** As pointed out above electricity from wind turbines is available only when the wind is blowing in the right speed range – with the result that the electricity produced is intermittent, volatile and largely unpredictable.<sup>11</sup>

Because of these limitations, wind turbines have little, if any, “capacity value” as that term is used in the electric industry and the *electricity has less real value than electricity from reliable generating units that can be called upon whenever needed to supply electricity users demands.*

Those responsible for assuring the reliability of electric systems and grids must assure that *reliable (“dispatchable”) generating capacity is available at all times to satisfy electricity demands and keep control areas and grids in balance.* The practical effect of the limitations of wind energy is that reliable generating capacity must be built and available for use *even if wind turbines are built and are available at some times (when the wind is blowing at the right speed) and the reliable capacity is not fully utilized. The cost of building and maintaining the reliable capacity – which may not be used at full capacity or peak efficiency -- is also borne by electric customers, in addition to the high costs of the electricity from wind.*

- D. Overestimation of emission reduction impacts.** BLM’s PEIS overestimates the potential reduction in emissions from fossil-fueled electric generation. For example, the draft PEIS does not reflect adequately the fact that emissions are produced when dispatchable fossil-fueled generating units continue to produce emissions when they are run in “spinning

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reserve” mode or run at less than peak efficiency to “back up” intermittent, volatile, unpredictable output from wind turbines. BLM should not assume that each kilowatt-hour of electricity produced by a wind turbine offsets emissions associated with an equal number of kWh produced by a fossil-fueled generating unit. Furthermore, no emissions are offset if the electricity displaced by a wind turbine (if any) would have been produced by a hydropower generating unit. Also, any emissions that are avoided are far different if the electricity would have been produced by, for example, an efficient gas-fired combined cycle generating unit rather than an old coal-fired generating unit that does not yet meet new source performance standards.

- E. “Studies” relied on by BLM’s draft PEIS to claim that property values are not adversely affected are invalid.** The draft PEIS cites two studies to justify its conclusion that property values are not adversely affected by construction of windmills in the area. Both studies funded and were prepared by organizations known to be advocates of wind energy development and both have been publicly discredited because of basic deficiencies in their methodology, assumptions and data. The fact that they have been discredited is no secret and should have been known to those developing the draft PEIS. Any assertion that the value of property, particularly residential property, near “wind farms” is not adversely affected is quite absurd.
- F. Those preparing the draft PEIS seem to have carefully ignored the growing literature that challenges the claims of the wind industry and other wind energy supporters, such as DOE-EERE, NREL, and NWCC and has largely ignored the interests of electric customers and taxpayers.** These comments from the introductory summary of these comments are repeated here so that they will not be overlooked when BLM officials undertake a more complete analysis that covers all the true costs and benefits of wind energy development.
- G. BLM’s PEIS fails to consider a key decommissioning risk.** While the draft PEIS discusses some decommissioning issues, it does not deal adequately with a key economic risk associated with decommissioning. That risk is whether a financially viable and responsible owner will be available to carry out decommissioning and restoration responsibilities.

In particular, BLM officials need to be aware that:

1. **Most “wind farms” in the US are “owned” by Limited Liability Companies (LLCs), many of which have only a single physical asset (i.e., the “wind farm”) and, perhaps, a contract for the sale of some or all of the electricity for some period of time. When it comes time for decommissioning and restoration of lands affected the LLC or whoever owns the “wind farm” at the time may not have the financial resources to pay the costs involved and may resort to bankruptcy or other measures to escape liability.**
2. **The tax incentives and other subsidies available from federal, state and local governments<sup>12</sup> are heavily “front-end” loaded, creating strong financial incentives for “wind farm” owners to sell or abandon the facilities once the value tax benefits**

and subsidies have been captured and/or when maintenance, repair and replacement costs begin to climb as facilities age. Note, for example, that the tax avoidance value of federal and state accelerated depreciation is fully captured in the first 6 tax years from start of operation, and the production tax credits are captured in the first 10 years.

- 3. **Assuring that money will be available to pay for decommissioning and restoration probably can be achieved only through cash bonds posted in advance of construction starts AND held by an independent third party.** Surety bonds probably will not provide adequate protection, particularly if periodic premium payments are required. Funds held in some sort of "trust" by the "wind farm" owner would not be secure because such funds would be part of the assets of the "wind farm" owner that would be available to all creditors in the event of bankruptcy.

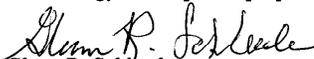
In summary, BLM regulations should require that full cash bonds, held by an independent third party, be posted before a permit is granted for a wind energy facility on BLM-administered lands.

**H. BLM's PEIS fails to consider at least one key public safety risk.** The draft PEIS does not deal with the need for safety standards for the components, construction and operation of wind turbines in cold climates. This problem has been faced in European countries but continues to be neglected in the United States. BLM rules should address this issue before additional wind turbines are permitted on BLM-administered lands.

One final comment: The draft PEIS reflects an underlying presumption that wind energy is environmentally and economically advantageous. This probably reflects the fact that key participants in the preparation of the draft are avid wind energy supporters or, perhaps, reflects the political decisions inherent in the current Administration's "Energy Plan." When preparing an EIS, BLM has an obligation to rise above both personal views and political objectives and strive for objectivity.

\* \* \*

These comments are submitted in my role as a citizen, consumer and taxpayer and are not on behalf of any client or other interest. Nevertheless, BLM has a public interest responsibility to take them fully into account as it has in the case of the interests of the wind industry and other wind energy development proponents.

  
 Glenn R. Schleede  
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Attachment #1: Errors and Excess in the NREL's JEDI-WIM Model that Provides Estimates of The State or Local Economic Impact of "Wind Farms"

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## Endnotes:

<sup>1</sup> Sections 2-31; 4.10 and subsections 1-7; 5-13 and its subsections; Subsection 6.1.1, 6.1.3, 6.2.1, 6.2.3, 6.3, 6.4.1.13, and Appendix B.

<sup>2</sup> Much of the data relied upon by those drafting the statement does not meet the basic standards established by the Data Quality Act and OMB regulations implementing that Act. Use of any such data is unwarranted.

<sup>3</sup> It is critically important that BLM officials recognize that NREL cannot be relied on for objective analysis and information about the costs and benefits of wind energy. Undoubtedly, some at NREL carry on research and development activities that follow scientific methods and engineering principles. However, much of what NREL does "in-house" or under subcontracts – particularly that relating to wind energy -- is more akin to the activities of a trade association. That is, it collects and distributes information that is favorable to wind energy and ignores information that is unfavorable to wind energy. Would BLM be comfortable with basing its findings about oil on information from the American Petroleum Institute, or on coal from the National Mining Association?

<sup>4</sup> Particularly DOE's Office of Energy Efficiency and Renewable Energy – DOE-EERE.

<sup>5</sup> Today's turbines begin producing some electricity when wind is about 6 MPH, achieve rated capacity when wind speed is about 33 MPH, and cut out around 56 MPH to avoid equipment damage or destruction.

<sup>6</sup> MACRS = Modified Accelerated Cost Recovery System.

<sup>7</sup> Whether financed with debt or equity.

<sup>8</sup> During the period ending December 31, 2004, "wind farm" owners have been able to deduct 60% of capital costs in the first tax year, 16% in the second tax year and the remainder over the succeeding 4 tax years – because of a "bonus" depreciation provision which apparently has not been extended.

<sup>9</sup> For example, DOE's publication, "Windpowering America," graph on page 4.

<[http://www.eere.energy.gov/windandhydro/windpoweringamerica/pdfs/wpa/35873\\_21century.pdf](http://www.eere.energy.gov/windandhydro/windpoweringamerica/pdfs/wpa/35873_21century.pdf)>

<sup>10</sup> Iowa Department of Natural Resources, "Top of Iowa Wind Farm Case Study."

<http://www.state.ia.us/dnr/energy/MAIN/PROGRAMS/WIND/documents/topofiaWindFarmCaseStudy.pdf>

<sup>11</sup> Except, potentially, during a few hours before the electricity is actually produced and wind conditions can be predicted with some accuracy. These are well known facts and are widely acknowledged in the literature and demonstrated repeatedly.

<sup>12</sup> Described earlier in these comments.

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**Response for Document 80021**

**80021-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

## Document 80022

### WindEISArchives

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**From:** windeiswebmaster@anl.gov  
**Sent:** Saturday, October 30, 2004 10:58 AM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80022

Thank you for your comment, Phillip Harper.

The comment tracking number that has been assigned to your comment is 80022. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: October 30, 2004 10:57:45AM CDT

Wind Energy EIS Draft Comment: 80022

First Name: Phillip  
Last Name: Harper  
Address: #####  
City: #####  
State: ##  
Zip: #####  
Country: USA  
Privacy Preference: Withhold address only from public record

Comment Submitted:  
We encourage aggressive searches for alternative energy

| 80022-1

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

**Response for Document 80022**

**80022-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

**Document 80023****WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Monday, November 01, 2004 10:57 AM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80023

Thank you for your comment, #####.

The comment tracking number that has been assigned to your comment is 80023. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: November 1, 2004 10:56:38AM CDT

Wind Energy EIS Draft Comment: 80023

First Name: #####  
 Middle Initial: #  
 Last Name: #####  
 Address: #####  
 City: #####  
 State: ##  
 Zip: #####  
 Country: USA  
 Email: #####  
 Privacy Preference: Withhold name and address from public record

**Comment Submitted:**

No windmills! They desecrate the natural beauty of the land for little return. It's just another Ponzi scheme.

| 80023-1

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

**Response for Document 80023**

**80023-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

**Document 80024****WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Wednesday, November 03, 2004 11:07 AM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80024



Wind\_Energy\_DPEI  
S\_OCTA\_80024.d...

Thank you for your comment, David Welch.

The comment tracking number that has been assigned to your comment is 80024. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: November 3, 2004 11:06:54AM CDT

Wind Energy EIS Draft Comment: 80024

First Name: David  
Middle Initial: J  
Last Name: Welch  
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City: Steilacoom  
State: WA  
Zip: 98388  
Country: USA  
Privacy Preference: Don't withhold name or address from public record  
Attachment: D:\My Documents\OCTA NTPO\Year 2004\Wind Energy DPEIS OCTA.doc

Comment Submitted:  
Please see attachment.

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

November 3, 2004

Oregon-California Trails Association (OCTA)  
David J. Welch  
National Preservation Officer  
102 Chinook Lane  
Steilacoom, WA 98388

Subject: Comments on Draft Programmatic EIS on Wind Energy Development

OCTA's mission is the preservation, appreciation and enjoyment of the Oregon and California National Historic Trails (NHT). While most of the physical remains of these trails have been lost, significant segments remain in some western states. We are concerned that these segments and their settings not be impacted further.

First, we appreciate that an effort has been undertaken to provide national guidance for the wind energy development. We encourage consistency across state borders and between the various field offices of the BLM. However, it is important that factors unique to a particular locality still receive adequate consideration.

Our comments on the document itself are threefold. First, while there is reference to protection of the National Historic Trails themselves, there is no apparent consideration of their setting. The setting is a primary consideration for visitors to the trails who wish to sense the experience of the up to 500,000 emigrants who traveled these trails about 150 years ago. Some states provide "no surface disturbance" protection out to 0.25 miles on each side of the trail, but this alone does not protect the setting. Clearly, wind energy generators have high potential for impacting the setting. We are especially concerned about the area in the Sweetwater Valley in Wyoming which is shown as having high wind energy potential. The trails and setting in this area are relatively pristine.

Second, there are many historic trail resources that are not designated NHTs. In fact almost all alternate routes and cut-offs of the main trails are deemed eligible for the National Register and thus are subject to Section 106 processes, although they are not NHTs. Also, these segments may or may not be listed in the National Register. The DPEIS should identify historic resources in this class and direct that Section 106 processes be applied on a case-by-case basis.

Third, the Best Management Practices (BMPs) presented in the DPEIS for cultural resources are inferior to those presented in many BLM documents dealing with the development of other types of energy in Wyoming. For example, the BMPs in the EIS for the Pinedale Anticline Gas Field development provide much more detail on what mitigation should be implemented when there is an adverse effect.

Thank you for the opportunity to comment on the DPEIS.

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**Response for Document 80024**

**80024-001:** As stated in the 1st bullet under Section 2.2.3.1, Proposed Policies, the proposed Wind Energy Development Program will exclude wind energy development from a number of locations on BLM-administered lands. Many of the excluded areas (e.g., areas that are part of the National Landscape Conservation System) are considered to be visually sensitive areas. Section 4.9 states that any historic property within the Area of Potential Effect will be evaluated for eligibility for listing on the *National Register of Historic Places*. If a property, such as a historic trail, meets eligibility criteria then any impacts to the resource, including impacts to its setting and visual impacts, are taken into consideration as required by the NHPA.

By including National Historic Trails within its NLCS, the BLM has recognized these trails as national treasures. The BLM accepts the responsibility to protect and preserve the value of these trails. This will be accomplished by protecting trail corridors associated with National Historic Trails, and segments of the trails, to the degree necessary to ensure that the values for which each trail was established remain intact. A BMP has been added to Section 2.2.3.2.2, Plan of Development Preparation, under the cultural/historic resources heading, specifying that when any ROW application includes remnants of a National Historic Trail, is located within the viewshed of a National Historic Trail's designated centerline, or includes or is within the viewshed of a trail eligible for listing on the *National Register of Historic Places*, the operator shall evaluate the potential visual impacts to the trail associated with the proposed project and identify appropriate mitigation measures for inclusion as stipulations in the POD.

As stated in Section 2.2.3.2, additional guidance and BMPs are available from other BLM program-specific projects. As required by the Wind Energy Development Program proposed policies (Section 2.2.3.1), mitigation measures identified in or required by these existing guidance documents would be considered and applied, as appropriate.

## Document 80025

**WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Saturday, November 06, 2004 2:27 PM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80025

Thank you for your comment, Paula Davis.

The comment tracking number that has been assigned to your comment is 80025. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: November 6, 2004 02:26:31PM CDT

Wind Energy EIS Draft Comment: 80025

First Name: Paula  
 Last Name: Davis  
 Address: 1935 E 3200 N  
 City: Logan  
 State: UT  
 Zip: 84341  
 Country: USA  
 Privacy Preference: Don't withhold name or address from public record

**Comment Submitted:**

I have been a purchaser of Utah's "Blue Sky pollution-free wind energy" for the past 3 years. And, living in Utah, I have driven through Wyoming several times and have seen the wind turbines. I am writing to commend you on your proposal to affect our nation's energy requirements through such a clean, renewable resource.

Unlike oil and gas drilling, this source of energy is not a "hit or miss" operation where drilling can occur, no oil/gas is found, and the mess and pollution created by the drilling companies remains despite the lack of increase in energy sources. Although wind is intermittent, it is not expendable as is oil. It is also one of the most desirable environmental alternatives given the increasing release of pollutants into our atmosphere by the existing coal-burning, and/or gas-burning vehicles and plants in our country.

Personally, my family will continue to do what we can at this 'micro' level by buying blocks of wind energy, purchasing hybrid vehicles, recycling what we can, etc. However, it gives citizens, like me, hope when government organizations such as the BLM are also pursuing clean energy alternatives.

Thank you,  
 Paula Davis

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

80025-1

**Response for Document 80025**

**80025-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

## Document 80026

### WindEISArchives

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**From:** windeiswebmaster@anl.gov  
**Sent:** Friday, November 12, 2004 5:24 PM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80026



wind\_energy\_deve\_  
PA\_80026.doc...

Thank you for your comment, Lee Kreutzer.

The comment tracking number that has been assigned to your comment is 80026. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: November 12, 2004 05:23:14PM CDT

Wind Energy EIS Draft Comment: 80026

First Name: Lee  
Middle Initial: A  
Last Name: Kreutzer  
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Attachment: U:\misc compliance\fy05\wind energy deve PA.doc

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windeiswebmaster@anl.gov or call the Wind Energy EIS Webmaster at (630)252-6182.

November 12, 2004

Comments on draft BLM Wind Energy DEIS

From: National Trails – Salt Lake City  
National Park Service

I write on behalf of the National Trails System-Salt Lake City office of the National Park Service to offer the following comments concerning the Bureau of Land Management’s draft Wind Energy Development Programmatic Environmental Impact Statement.

We are pleased to see that (per p. 2-6, 4-39) the BLM will not issue right-of-way grants for wind energy development on National Historic and Scenic Trails. However, it is not clear whether this stipulation precludes only development on actual trail ruts or corridors, or whether protection is extended to trail settings, as well. Some national historic trail segments transect high-potential wind energy development areas, as identified in the document’s appendices. Wind development projects have the potential to impact the Oregon, California, Pony Express, Mormon Pioneer, Old Spanish, Camino Real de Tierra Adentro, and Santa Fe National Historic Trails, and possibly the Long Walk Trail, which is now under study for eligibility. Some of those landscapes retain their historic character, appearing much as they did in the times of Lewis and Clark, Jim Bridger, Brigham Young, the Pony Express, Chief Joseph, Chief Washakie, Geronimo, Hoskinini, and Sitting Bull. The nation’s historic trails – even remote segments-- are visited by thousands of American families, schoolchildren, college classes, church groups, historians, re-enactors, and trails buffs each year. Historic trail setting, unimpeded by the presence of intrusive energy development, is integral to their trail experience. Therefore, we ask that this programmatic EIS specifically provide for exclusion of high-quality, minimally developed trail corridor settings from wind energy development. Trail corridor settings eligible for such protection should be identified *a priori* in resource management plans, in consultation with BLM trails partners and the public, and not on a case-by-case basis (per in Section 106 compliance) as wind energy proposals are developed and submitted.

80026-1

The draft EIS would be enhanced by providing a map depicting all specified areas – National Trails, Wilderness Areas, Wilderness Study Areas, National Monuments, state parks, etc. -- that would be excluded from wind energy development under this plan.

80026-2

In several locations (e.g., page 2-14), the draft states that the BLM “should consult with Indian Tribal governments early in the planning process to identify issues regarding the proposed wind energy development...” Some readers might erroneously infer that the BLM would consult only once during the project planning phase. We suggest the statement be clarified to read, “The BLM should *initiate consultation* with Indian Tribal governments early in the planning process...”

80026-3

The draft indicates that archeological survey should be undertaken within areas of potential effect following a records search, “depending on the extent of existing information” turned up by the search. The amount of time passed since the last cultural resources survey of an area also should be considered when determining whether to survey, as resources can be destroyed, impaired, or buried by natural processes and human activity through the years. Undiscovered sites likewise can be exposed by such processes, and existing resources may be better understood as the result of more recent research and theory development. Determinations of National Register eligibility might be revised in either direction for properties that have been impacted or studied further. We suggest that if an area of potential effect has not been systematically surveyed for cultural resources in the past 10 years, then archeological survey and site condition and significance re-evaluation should be considered regardless of the “extent” of older and perhaps outdated information.

80026-4

On page 4-53, the draft document states that more than 9,000 cultural resources have been documented on western BLM lands, and only 317 of those are National Register eligible. That only 3.5% of documented sites on western BLM lands are eligible seems surprising. We wonder whether all 9,000 of those sites actually have been evaluated for eligibility, or whether the majority remains unevaluated, as often is the case for NPS-managed sites.

Further, the document states that 12,778 historic properties on *all* western lands “have been reported to the NPS.” This statement is confusing and inadvertently misleading. As of 2004, NPS units within the Colorado Plateau Cluster – Utah, southern Wyoming, western Colorado, and parts of Arizona and New Mexico – have nearly 23,000 sites documented in *their* Archeological Site Management Inventory System (ASMIS) *databases alone*. Of these, 1,912 have been determined eligible, 662 are ineligible, 556 are Register-listed, eight are administratively listed, two have been nominated, and the remaining properties are either unevaluated (3,932) or no eligibility information at all is reported for them in the ASMIS database (15,865). Moreover, the NPS ASMIS database does not routinely include site data from non-NPS lands, nor is ASMIS accessible for public queries via the Internet.

80026-5

It appears that your numbers were obtained from the National Register Information System (NRIS), via Park Net. The NRIS database is incomplete, as it includes only those data that have been reported to it for National Register purposes. Typically, an agency makes a determination of eligibility or ineligibility (DOE) for each site documented on its lands, and then the DOE is independently reviewed by the SHPO/THPO. In the vast majority of cases, at least within the NPS (and probably within other agencies, as well), the DOE process ends there, and neither the site nor its eligibility status is reported to the National Register. Those data are recorded only in the agency’s database, and perhaps, but not necessarily, in a SHPO database. In some cases – for instance, where the agency and SHPO/THPO disagree on a DOE, or when the agency wants to pursue the lengthy and costly nomination and listing process -- site eligibility is reviewed at the National Register level. Those properties are entered in the NRIS database. The NRIS, then, is

highly incomplete in comparison to an agency's own archeological database. It probably does not even provide a statistically representative sample of the agencies' comprehensive data.

If your document is relying solely on NRIS site data, then it is significantly underestimating the numbers of known, eligible historic properties managed by the BLM and other agencies on western lands. This error has important implications, since eligible sites are to be treated as if they are, in fact, National Register-listed (p. 4-51). Underestimating the number of eligible sites downplays both the potential impacts of wind energy development on significant cultural resources *and* the potential quantity and complexity of compliance issues facing wind energy development proposals on western public lands.

We ask that the problematic section of text beginning on page 4-53 be revisited. Please clarify whether your 317 eligible sites have DOEs with SHPO/THPO concurrence, or whether they actually are Register-listed sites. How many sites have been evaluated and determined ineligible? How many sites have been documented but not evaluated for eligibility at all, and would have to be field evaluated as part of a Section 106 compliance action? Also, please obtain more accurate agency data from at least the BLM, NPS, and USFS and use them in lieu of NRIS figures in this discussion.

We thank you for this opportunity to review and comment on your draft EIS. We hope our remarks may be useful in helping the BLM continue to protect historic resources while accommodating wind energy development projects in the western United States.

Lee Kreutzer  
Cultural Resources Specialist

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80026-5  
(cont.)

**Responses for Document 80026**

- 80026-001:** By including National Historic Trails within its NLCS, the BLM has recognized these trails as national treasures. The BLM accepts the responsibility to protect and preserve the value of these trails. This will be accomplished by protecting trail corridors associated with National Historic Trails, and segments of the trails, to the degree necessary to ensure that the values for which each trail was established remain intact. A BMP has been added to Section 2.2.3.2.2, Plan of Development Preparation, under the cultural/historic resources heading, specifying that when any ROW application includes remnants of a National Historic Trail, is located within the viewshed of a National Historic Trail's designated centerline, or includes or is within the viewshed of a trail eligible for listing on the *National Register of Historic Places*, the operator shall evaluate the potential visual impacts to the trail associated with the proposed project and identify appropriate mitigation measures for inclusion as stipulations in the POD.
- 80026-002:** The maps included in the PEIS are appropriate for the programmatic level of analyses required to develop and evaluate a Wind Energy Development Program. Given the size of the 11-state study area and the scale of the maps presented in the PEIS, it is not feasible to evaluate wind energy resources, the status or condition of BLM lands, or other spatial attributes at a more local level. Furthermore, such an evaluation would not enhance or improve upon the effectiveness of the Wind Energy Development Program. As required by the program's proposed policies and BMPs, detailed analyses of specific parcels of BLM-administered land will be conducted at the site-specific level on a project-by-project basis.
- 80026-003:** Thank you for your comment. The text has been changed at Section 2.2.3.2.2 and at Section 5.12.5 to reflect your suggestions.
- 80026-004:** BLM Manual 8110, *Identifying and Evaluating Cultural Resources*, establishes guidelines for gathering cultural resource information, including review and evaluation of existing survey data (BLM 2004). The text has been revised in Section 2.2.3.2.2, Plan of Development Preparation, under the Cultural/Historic resources heading, to specify that the "extent and reliability" of existing information shall be evaluated.
- 80026-005:** The text acknowledges that the number of sites found in the western United States is likely much higher than that reported on the National Register Information System (NRIS). Ultimately, this will be an issue to be addressed at a site-specific level. For the purpose of the PEIS, the numbers provided are considered sufficient to demonstrate that cultural resources are present on BLM-administered land. The altering of these numbers will not affect the overall findings of the PEIS.

Document 80027

WindEISArchives

From: windeiswebmaster@anl.gov
Sent: Sunday, November 14, 2004 12:35 AM
To: WindEISArchives
Subject: Wind Energy EIS Comment 80027

Thank you for your comment, #####.

The comment tracking number that has been assigned to your comment is 80027. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: November 14, 2004 12:35:07AM CDT

Wind Energy EIS Draft Comment: 80027

First Name: #####
Last Name: #####
City: #####
State: ##
Zip: #####
Country: USA
Email: #####
Privacy Preference: Withhold name and address from public record

Comment Submitted:
Comments to the draft Wind Energy EIS
By: #####
#####, ##

I request confidentiality, so please withhold my name from public view.

Summary: I am not in favor of your proposed action. It appears that a decision on the proposed action was already reached prior to starting the DPEIS. Of the proposals, I would favor the Limited Development Alternative, although my first choice would be no development at all. Your draft EIS although covering a wide range of environmental issues, favors industry and not the environment and the public. I do not want to see wind farms spread across miles and miles of BLM land. Wind Farm construction equals habitat and wildlife destruction. A limited development approach that constructs a wind farm in a certain area that needs the power and then monitors the effects on wildlife makes the most sense. Let us pursue the least amount of wind energy development, not the greatest amount. In my opinion, this is totally the wrong strategy of maximizing wind farm development. It is too early with Wind Farms to determine what the eventual effect might be on wildlife including the use of habitat by wildlife in the impacted area. Any project should not be and preferably not in view at all. This may be difficult due to the height of this equipment, but installation should be where the equipment is not easily seen. These units are ugly and very intrusive and it would be a unique person that would rather look at a wind turbine then the natural scenery. Any final report needs to define areas where no wind farm development would be allowed based on critical habitat, wildlife concerns, and locations where this equipment would alter the view. Of course, there will be only a limited area where industry will want to construct wind farms and that is close to a transmission system, (i.e., the lowest cost). These areas may not be favorable from an environmental and wildlife habitat standpoint. I also feel that a no new roads policy on public land should be instated and be part of this report.

80027-1

80027-2

Each area or state has its own special requirements in terms of habitat, environment, wildlife, etc and I am very pleased that this is part of the report. It is a critical point that before any development a study and report of that specific area be performed to make sure any special requirements are covered and that if any species or any critical habitat would be effected to a great degree the project canceled or relocated. Special studies and environmental reports for all projects would give the public a chance to

80027-3

comment on each proposal; this is the only way to proceed. No net loss of habitat has to be the rule for every project. Destruction of habitat is one of the main reasons for declining wildlife populations. For Wyoming, impact on grouse is just one of many serious concerns. No project can be approved where it affects any bird, animal, plant on the endangered and threatened list and cannot have any impact on species designated with sensitive and special status.

80027-3  
(cont.)

The primary responsibility of the BLM should be to conserve and enhance habitat to help maintain wildlife populations so that future generations can enjoy and walk among the wild things. If you keep with the policy you are pursuing now, there will not be any wild things left.

Articles in newspapers have stated that there are 9 wind projects either pending or already approved in Wyoming, mostly on federal lands. Your report does not list these pending/approved projects. Will these projects be subjected to this EIS when final?

80027-4

Some of the existing wind farms on private land have made a bad name for wind farms. Environmental regulations have been side stepped and other issues ignored such as habitat and wildlife concerns. Environmental regulations should be consistent whether on federal land, state land or private land. Wind turbines have been unnecessarily located on the skyline and in view of cities and peoples homes (Uinta County WY wind farm that photos are in your report). In general, environmental stewardship has been severely lacking. Approval of the Uinta County wind farm project seemed to be based solely on increasing county property tax revenue and providing income to landholders. Turbines in the Arlington, WY project were located back from the edge of the plateau which supposedly reduced bird deaths (unsure of how this was quantified), but in Uinta County the turbines are located right on top of ridges. Ultraviolet reflective paint was also used on the blades at the Arlington project to increase visibility to birds. I do not know if special paint was used on the turbines installed in Uinta County, they just appear an intrusive white color to me.

Examples of what occurs: The Uinta County WY Wind Farm Project used 42 miles of mostly new dirt roads and 42 miles of above ground power lines over an area of approximately 45 square miles. The project area was classified by the WY Department of Environmental Quality as winter/year long range for Bear River divide moose, Uinta mule deer herd and Carter Lease antelope herd. The area also provides nesting and brood rearing for sage grouse. The Bear River Divide is also a migration corridor for raptors and other migratory birds and several species of bats are known to inhabit this area. All of these species have shown to be impacted by wind power development. These type of projects impact huge areas, a lot (maybe most) of which would end up being unusable by wildlife. The community had almost no input into this project, but I am pleased your report addresses public involvement. Several public hearings were reported to be held, but the hearings were not well advertised so no one attended. In fact, the Uinta County Planner did not even realize what the visual impact to the community would be until the wind turbines were being constructed (call him and ask, his name is Ken Klinker). I live in this area and I had no idea of the project until I saw an article in the local paper, construction started a few weeks later.

80027-5

Recommendations to the Uinta County Wind Farm developers:

- 1) WY Game and Fish Commissions mitigation policy defined this area as "high" mitigation category meaning the habitat is important to sustain animal populations and directed the WY Game and Fish Department to recommend no net loss of habitat function - This was not done by the project developers.
- 2) Sage Grouse, which is a threatened species and petitioned as an endangered species, are present in this area and the project reduced habitat for these birds. - The project developers went ahead with construction, but construction was started after breeding/brood rearing season (August). However, in the future, will sage grouse inhabit much of this 45 sq mile area? Will sage grouse totally disappear from this area?
- 3) Of course, raptors, song birds, bats are affected through direct mortality with wind turbines and all these are present in this area. There is no mitigation plan.
- 4) Development of an annual wildlife monitoring plan was recommended as a condition for the permit, but as far as I am aware, this is not being done. Also recommended was mortality surveys of raptors, song birds and bats, I doubt this is being done, but I am not sure, as no information is published. A process for addressing mitigation of possible impacts should be determined. - to my knowledge, this is not in place.

- 5) Power lines to be designed to minimize electrocution of birds and a design that would prevent the power poles from being used as hunting perches for raptors - To my knowledge, this was done.
- 6) One corner of the wind farm area is located in a wildlife migration route - Construction of wind turbines in this migration area proceeded. The project developers in general were not concerned about wildlife and in fact, an attorney representing the project stated he was sure that there would be no impact on wildlife; all studies would indicate otherwise.
- 7) Many of the turbines were located (unnecessarily) in plain view of the community of Evanston, and on the skyline. Wind turbines are located on top of ridges where it would seem to maximize bird and bat deaths.

80027-5  
(cont.)

Bird/bat mortality - How many birds/bats is it all right to kill? I would say none. I will attempt to find out more about the statement in your Environmental concerns summary "several large wind facilities have operated for years with only minor impacts on these animals", specifically, how are the numbers are determined. Depending on how the numbers were derived could indicate a very different conclusion. Is it based on mortality numbers alone, meaning there are a lot less birds in the wind farm area, the rest are already dead, or most the birds have already left that area for different habitat and therefore the kill numbers are less. Year after year, birds, bats, etc are killed; it is not a one time issue. Activity in a development area by its nature will reduce the amount of wildlife using habitat in the immediate effected area. As a part of a project, mitigation measures regarding bird and bat issues have to be in place prior to start of any project, not after construction. If allowed to be after, mitigation measures will never happen and destruction of birds and bats will be continue and not reported and nothing done about it.

80027-6

The report states that the proposed action would result in the lowest potential cost to the industry, again favoring the industry. It does not matter to me how much the project costs the industry or a specific company. Any project needs to be constructed in a proper manner. To develop an EIS that would result in the greatest amount of development at the lowest potential cost to companies is certainly the wrong approach. These projects have to done correctly and if not economical then scrapped. Economic benefits to an area are not that great after wind farm construction, so this matter is of no importance to me. What usually happens with these projects is we have this nice study (EIS) then companies are granted a permit and proceed with no regard to what the report states and proceed to destroy the environment and wildlife. There has to be someone from BLM or a public official to monitor development every step of the way to ensure compliance with the EIS. The capability to impose huge fines in the range from millions to tens of millions depending upon the infraction needs to be part of any project approval. Also, the capability to shut a project down needs to be in place if a company violates the permit conditions.

80027-7

80027-8

Wind projects should be done at a local level to supply demand for the immediate area, that way the consumers/public can make a decision on how to meet the power demand after reviewing the alternatives. The local area would directly benefit from the project and the consumers would have a choice. The Uinta County WY Wind Farm does not provide power to the immediate community; it is sold in short term markets, for the most part in states other than WY.

80027-9

Note: On page 2-28 you refer to the Arlington WY project having generating capacity of 1300 MW, please confirm this is correct. WY statewide currently has a maximum capacity of 284 megawatts; I believe the Arlington project has a maximum capacity of 130 megawatts.

80027-10

There is also the issue of how to market the power from a wind farm, and this is more of a concern to companies investing in these projects. An example is the Uinta County WY project with only one long term contract for less than 20% of the maximum output executed so far, one year into the project. The operating companies are charging more for "renewable" power and unless the price is competitive with other sources, very few people will be willing to buy. Instead of saving the consumer money, power companies want to charge more. Consumers do not want to subsidize company's renewable power projects, unless ultimately it saves the consumer money. They market this as "green" power, but of course fail to mention that they just destroyed habitat over a huge area and have negatively affected numerous wildlife species. Power generation with no emissions while impacting huge tracts of land is not an acceptable trade off.

80027-11

Property value impacts can be debated and your report refers to two studies where there seemed to be no negative impact on property values. These studies in my opinion reach a strange conclusion given that most people think the wind turbines are ugly and destroy the view. I would not purchase a property in the view shed of a wind farm, so all those properties to me would be worthless. I suggest you remove reference to these studies from the final report as it adds no value to the EIS.

80027-12

Consider addressing the below in the EIS:

Alternatives: Before any extensive wind farm projects are implemented, the alternatives for supplying power should be considered and I believe there are better alternatives. It also seems to me that wind power in general may be the wrong approach taking a long-term outlook. In general, wind power is intermittent power, so other sources of energy are still required. Companies, with government tax credits, should be spending money on research and construction of other sources of renewable energy such as biomass, solar, and nuclear and spend money improving efficiency and improving transmission systems. The alternatives would be much less destructive in terms of habitat and biomass or solar facilities could be located where they cannot be easily viewed. Companies, state and federal governments should be promoting consumers and companies to limit consumption and to increase efficiency. For example, Utah Power spends \$20 million a year on efficiency improvements. If wind farms are not going to provide a long term solution then why destroy habitat and impact vast tracts of land without looking at the alternatives and a long term perspective. If the efficiency could be improved, along with alternative renewable power, the need for large numbers of wind farms to generate power disappears. The largest untapped clean energy resource is energy efficiency and energy efficiency would be a net savings to the economy that some predict could be in the tens of billions of dollars. I am convinced that with other technologies, the future demand for power can be solved and this could occur without impacting huge tracts of land with wind farms.

80027-13

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

**Responses for Document 80027**

- 80027-001:** Thank you for your comment. We appreciate your input and participation in the public review process.
- 80027-002:** 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. We appreciate your input and participation in the public review process.
- 80027-003:** Thank you for your comment. We appreciate your input and participation in the public review process.

As required by the Wind Energy Development Program proposed policies and BMPs, species- and site-specific analyses will be conducted for any proposed project on BLM-administered lands. The purpose of these analyses is, in part, to identify the presence and status of ecological resources in the proposed project area, and identify important habitats and areas that may not be appropriate for wind energy development. The scope and approach for these projects 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, mitigation, monitoring, and operation stipulations for incorporation into the POD. Regarding sage-grouse species, existing BLM guidance on the management of sage-grouse and sage-grouse habitat will be incorporated into local, site-specific analyses and development of the project stipulations. These stipulations will help in the avoidance, minimization, and/or mitigation of potential impacts of the proposed wind energy project on ecological resources of the area.

In addition, adaptive management strategies and monitoring programs will be required for 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 (including those addressing ecological impacts) 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.

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

- 80027-004:** Notwithstanding the newspaper articles that may have been published, there is only one wind energy project on BLM-administered lands in Wyoming — the

Wyoming Wind Project located in Arlington. While the BLM has received applications for site monitoring and testing, there are no applications for commercial development projects on BLM-administered land in Wyoming. All projects on BLM-administered lands will be subject to the requirements of the proposed Wind Energy Development Program, including requirements for site-specific NEPA analyses.

- 80027-005:** As summarized in Section 2.6.2, without the proposed action, wind energy development might be more focused on state, Tribal, or private lands. Development on nonfederal lands could be subject to less federal oversight and less stringent mitigation. The proposed action provides an approach for ensuring the minimization of environmental impacts to the greatest extent possible.
- 80027-006:** 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 purpose of these analyses is to characterize the ecological resources that are present in the area of a proposed project and to identify habitats and other features that are important to the use or distribution of ecological resources. With regard to monitoring, the policies and BMPs require the development of a monitoring program that applies to construction and postconstruction phases of a proposed wind energy project. The scope and approach of the site-specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this process, the BLM will develop project-specific siting, design, operation, mitigation, and monitoring stipulations for incorporation into the POD.
- 80027-007:** As stated in Chapter 1, the National Energy Policy recommends that the Department of the Interior work with other federal agencies to increase renewable energy production on public lands. If the BLM's Wind Energy Development Program establishes requirements that render wind energy development on BLM-administered lands uneconomic, the National Energy Policy recommendation will not be accomplished. The BLM's program ensures that potential adverse impacts will be minimized to the greatest extent possible while simultaneously increasing the amount of wind energy development on BLM-administered lands over the next 20 years.
- 80027-008:** The BLM is committed to full implementation of the Wind Energy Development Program proposed policies and BMPs. These include monitoring and implementation of adaptive management strategies to ensure that the potential adverse impacts are mitigated to the fullest extent possible (Section 2.2.3.1, Proposed Policies, and Section 2.2.3.2, Proposed BMPs). In addition, the BLM will require financial bonds for all projects to ensure compliance with the terms and conditions of the ROW authorization and the requirements of applicable regulatory requirements. 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). Operators will be required to comply with the terms and conditions of the ROW authorization. The POD, containing project-specific stipulations (including required mitigation measures), will be appended to the ROW agreement. Failure to comply could result in termination of the ROW authorization.

- 80027-009:** 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. We appreciate your input and participation in the public review process.
- 80027-010:** The text has been revised or clarified in response to your comment.
- 80027-011:** Thank you for your comment. We appreciate your input and participation in the public review process.
- 80027-012:** Two studies that deal specifically with the impact of wind developments on property values had been undertaken by the time the PEIS was prepared, both showing that no negative impacts occur. One study was published by ECONorthwest (2002) and the other was published by Sterzinger et al. (2003). Both studies provide a comprehensive analysis of the problem, one through a survey of county property assessors, and the other through the analysis of housing sale prices. Although additional studies may provide more insight on the impact of wind developments on property values, numerous studies that consider the impact of energy (power generation and transmission) and waste (nuclear and hazardous waste and landfills) facilities on property values are also useful in this context. The majority of these studies contend that while proximity to potentially objectionable facilities can create significant opposition in local communities, the overall economic impact of these facilities is not negative. Often opposition does not translate into economic impact, either on property values or on the local economy, or any negative impact that does occur is often offset by economic benefits of a particular facility in the local community in terms of employment, income, and local tax revenues. Positive impacts of this nature, in turn, benefit local property values by making the local community a more desirable place to live and work.
- 80027-013:** The alternatives considered in the PEIS concern the development of wind energy production on BLM administered lands, not choices among various sources of power. Consideration of alternative sources of renewable energy is beyond the scope of the PEIS. We appreciate your input and participation in the public review process.

**Document 80028****WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Sunday, November 14, 2004 6:28 PM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80028

Thank you for your comment, Michael Kenedy.

The comment tracking number that has been assigned to your comment is 80028. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: November 14, 2004 06:28:21PM CDT

Wind Energy EIS Draft Comment: 80028

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 Last Name: Kenedy  
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 Email: michaelkenedy@sbcglobal.net  
 Privacy Preference: Don't withhold name or address from public record

Comment Submitted:

Dear Friends:

What a wonderful idea! We have a lot of wind here in western Nevada. Getting away from polluting energy sources and reducing our dependence on foreign oil is all good. Should you ever want to test or offer government grants I have 1 acre and a spot in my backyard for a windmill.Thanks!

80028-1

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

**Response for Document 80028**

**80028-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

Document 80029

**Nevada Wind, LLC**  
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November 19, 2004

BLM Wind Energy Programmatic EIS  
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 9700 S. Cass Avenue  
 Argonne, IL 60439

We have reviewed the draft programmatic EIS for Wind Energy Development and offer the following comments for your consideration:

Section ES4 addresses alternatives. We believe that the alternative “limited wind energy development” should not be the preferred option, since it will stifle renewable energy development. However, should this option be selected please note under the section “limited wind energy development alternative,” we believe that development should be limited to locations where development currently exists or where monitoring activities are currently underway or applied for through a BLM right of way for project or anemometer locations at the time that the EIS is finalized, not when the EIS started. The list included in the document is also inaccurate as several Nevada Wind and Ely Wind right of ways that have been issued and other applications are being processed. Specific projects should not be listed in the document. Only the conditions as identified in this paragraph should be included. This should also be reflected in Section 6.3 Impacts of the Limited Wind Energy Development Alternative where specific sites are listed. That list is also incorrect and incomplete.

80029-1

We support the proposed action that would implement the Wind Energy Development Program, since it ensures a consistent policy. However, we also believe that the policy should apply to agencies and entities that prevent sites from being used for wind energy development. Those entities should be required to pay “rent” for the acreage that would have been used by a wind developer, but were denied based upon the needs of a governmental agency. In addition, these entities should be required to pay other fees to the BLM, such as cost recovery fees and energy fees that are equal to what the BLM would have received from the energy developer. The BLM should not be denied financial benefit because it cannot issue a right of way to a wind developer. In this case, when the BLM designates land as undevelopable for renewable energy projects, it should calculate what it would have received in rent, cost recovery, energy fees, etc. and charge that entity for lost revenue. This would also apply to the State in the form of lost taxes. This has been done before with the State receiving “taxes in lieu of” for various land withdrawals. An example would be the Nevada Test Site where the State and County is receiving money in lieu of taxes for allowing the NTS to utilize land that could have been used for other purposes which

80029-2

BLM Wind Energy Programmatic EIS  
 November 19, 2004  
 Page two

would have generated a tax income stream. The same would apply for various local governments.

80029-2  
 (cont.)

It is important to understand that the footprint for monitoring activities is minimal versus the disturbance for the completed wind farm. This was clearly delineated in the EIS. We support categorical exclusions for wind monitoring activities. The reduced cost recovery expense for exploration on sites identified with categorical exclusions encourages developers to work with the BLM to satisfy concerns of wildlife groups and others. The writers of the EIS showed that they have a good understanding as to what is needed for monitoring activities and what is involved in developing and constructing wind farms. These two activities should not be combined. Exploration is costly for the developer with no return until a go/no-go decision for development is reached. Typically less than 25% of the sites explored result in an actual development project.

Most energy developers would be pleased to work directly with the BLM to identify sites that have energy development potential. The BLM should be encouraged to participate with the wind developers in finding suitable sites that are not sensitive to BLM's mission.

80029-3

Wind energy development creates jobs in mostly rural communities. These are generally communities where these high paying jobs are needed. The economic development benefits to these communities as a result of job creation would be enhanced by renewable energy projects. An additional benefit would be no harm to the environment as a result of the economic development benefit.

We, as developers, confirm that wind development is compatible with a wide variety of land uses and we are looking forward to having an opportunity to explore potential partnerships for use of transmission and other services to maximize land use while still making the land available for recreational, grazing and other activities.

There is quite a bit of reference in the document to areas that would not be considered for wind energy development. However, these areas are not specifically identified. It is our understanding that an EIS process such as this mandates that all information is put out to the public. By omitting the maps that show areas not to be considered for development, the writer is violating the EIS process. In order to ensure that all wind energy development projects are treated fairly and consistently, and part of the public process, a map showing the areas where development would not be approved should be included. This would save time, energy, effort and expense on the part of wind energy developers and provide a clear, concise direction for the BLM in working with wind developers. It would also support the fact that this is a public document and a means for public input.

80029-4

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Page three

We look forward to working with the BLM in the establishment of this comprehensive PEIS to enable us to have a greater understanding as to what is expected of us, who we need to work with, and the assurance that all projects will be handled consistently.

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Carlson". The signature is stylized with a large, sweeping initial "T" and "C".

Tim Carlson  
Managing Partner  
Nevada Wind, LLC.

**Responses for Document 80029**

- 80029-001:** The limited wind energy development alternative considers additional wind energy development on BLM- administered land in areas where it currently exists, will be under review, or approved for development at the time the ROD for the PEIS is established. When the Draft PEIS was prepared, it was determined that only six locations were likely to meet these criteria by the time the ROD will be published (anticipated in July 2005). Although applications for additional ROW authorizations for both site monitoring and testing and commercial development may have been submitted to the BLM or may be under consideration by developers, the scope of the limited wind energy development alternative will not be expanded. Including additional projects would not substantively alter the conclusions of the PEIS regarding the alternatives.
- 80029-002:** 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. We appreciate your input and participation in the public review process.
- 80029-003:** Thank you for your comment. We appreciate your input and participation in the public review process.
- 80029-004:** The maps included in the PEIS are appropriate for the programmatic level of analyses required to develop and evaluate a Wind Energy Development Program. The maps provided in Appendix B for each Field Office show the lands that will be excluded from the wind energy development to the extent they were identified in the MPDS. Given the size of the 11-state study area and the scale of the maps presented in the PEIS, it is not feasible to evaluate wind energy resources, the status or condition of BLM lands, or other spatial attributes at a more detailed level. Furthermore, such an evaluation would not enhance or improve upon the effectiveness of the Wind Energy Development Program. As required by the program's proposed policies and BMPs, detailed analyses of specific parcels of BLM-administered land will be conducted at the site-specific level on a project-by-project basis.

**Document 80030****WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Wednesday, November 24, 2004 3:05 PM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80030

Thank you for your comment, Ursula Powers-Sindlinger.

The comment tracking number that has been assigned to your comment is 80030. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: November 24, 2004 03:05:09PM CDT

Wind Energy EIS Draft Comment: 80030

First Name: Ursula  
 Middle Initial: K  
 Last Name: Powers-Sindlinger  
 Organization: Te-Moak Housing Authority  
 Address: 504 Sunset Street  
 City: Elko  
 State: NV  
 Zip: 89801  
 Country: USA  
 Email: nvgrantwriter@frontiernet.net  
 Privacy Preference: Don't withhold name or address from public record

**Comment Submitted:**

I consider this a very good idea but whenever applicable, I suggest that Indian tribes be involved in these projects, especially if the public land is located within a tribe's ancestral lands such as public lands located within the ancestral/treaty area of the Western Shoshone tribes.

80030-1

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

**Response for Document 80030**

**80030-001:** Please see Sections 2.2.3.2.2 and 5.12.5 for descriptions of how the BLM will address your suggestion for involving affected Indian Tribes through government-to-government consultation.

**Document 80031****WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Thursday, November 25, 2004 10:02 AM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80031

Thank you for your comment, John Powers.

The comment tracking number that has been assigned to your comment is 80031. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: November 25, 2004 10:02:16AM CDT

Wind Energy EIS Draft Comment: 80031

First Name: John  
 Middle Initial: S  
 Last Name: Powers  
 Address: 10 Massachusetts Ave  
 Address 2: P O Box 338  
 City: Hyannisport  
 State: MA  
 Zip: 02647  
 Country: USA  
 Email: johnspowers@hotmail.com  
 Privacy Preference: Don't withhold name or address from public record

**Comment Submitted:**

Wind Power is todays answer to a cleaner energy. Public health and safety have been getting poor advice, the consequences of dependence of nuclear and fossil fuels.

At a time when Pilgrim Nuclear Plant wants a 20 year extension.  
 Nuclear waste can't be solved.

Our dependence on gasoline + oil has limits. Initially people are against change, but I believe wind and solar both clean energy will surpass.

Nantucket Sound has the best sustained wind speeds, 17-19, considered "outstanding" on the East Coast.

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

80031-1

**Response for Document 80031**

**80031-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

**Document 80032\*****WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Wednesday, December 01, 2004 1:15 PM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80032



Wind\_memo\_80032.doc (51 KB)

Thank you for your comment, Erik Brown.

The comment tracking number that has been assigned to your comment is 80032. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 1, 2004 01:15:15PM CDT

Wind Energy EIS Draft Comment: 80032

First Name: Erik  
 Middle Initial: S  
 Last Name: Brown  
 Organization: Humboldt State University  
 Address: 2460 Wyatt Lane  
 City: Arcata  
 State: CA  
 Zip: 95521  
 Country: USA  
 Email: erikb1972@yahoo.com  
 Privacy Preference: Don't withhold name or address from public record  
 Attachment: U:\ENGR410\Wind\_memo.doc

Comment Submitted:  
 See attached memo

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

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\* The comment numbers for this document appear to be out of sequence. However, some of the comments are repeated, and, therefore, were assigned the same number.

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MEMORANDUM

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**TO:** U.S. DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT  
**FROM:** ERIK BROWN, ENVIRONMENTAL RESOURCES ENGINEERING STUDENT, HUMBOLDT STATE UNIVERSITY, CA.  
**SUBJECT:** COMMENTS ON "WIND ENERGY DEVELOPMENT PROGRAMMATIC DRAFT EIS"  
**DATE:** 1/10/2005

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SUMMARY

The BLM has determined that the establishment of a Wind Energy Development Program would be a major federal action as defined by the National Environmental Policy Act of 1969 (NEPA). Thus, the BLM has prepared this draft programmatic environmental impact statement (PEIS). Upon reviewing the Draft PEIS, the following comments were developed:

- Requirements for hydro-geologic studies should be included in the proposed mitigations section | 80032-1
- Discharge of wastewater is mentioned as a potential water quality issue but is not mentioned in the proposed mitigations section | 80032-2
- Use of sky cranes as part of the Transportation Considerations Section 3.5 should be considered to reduce the need for road construction/modification, especially if roads are to be temporary | 80032-3
- A provision for lightning protection specific to wind turbines should be included in the Overview Section 3 | 80032-4
- Use of recycled materials whenever possible should be included in the proposed BMPs | 80032-5
- The language of the mitigation measures needs to be stronger, e.g. "should" should be changed to "shall" | 80032-6
- No discussion on what may happen if mitigation measures are unsuccessful is provided | 80032-7

BACKGROUND

As part of the National Energy Policy, in May 2001, the President's National Energy Policy Development Group (NEPDG) recommended to the President that the Departments of the

Interior, Energy, Agriculture, and Defense work together to increase renewable energy production (NEPDG 2001). In response to National Energy Policy Group recommendations, the BLM has also begun efforts to evaluate wind energy potential on public lands, and to establish wind energy policy. Toward that end, the BLM issued an Interim Wind Energy Development Policy (BLM 2002) that establishes requirements for processing applications for testing and monitoring wind energy sites and developing commercial wind energy development projects.

The BLM has determined that the establishment of a Wind Energy Development Program would be a major federal action as defined by the National Environmental Policy Act of 1969 (NEPA). Thus, the BLM has prepared this draft programmatic environmental impact statement (PEIS). The objectives of the PEIS are to (1) assess the environmental, social, and economic impacts associated with wind energy development on BLM-administered land, and (2) evaluate a number of alternatives to address the question of whether the proposed action presents the best management approach for the BLM to adopt, in terms of mitigating potential impacts and facilitating wind energy development (BLM 2004). The objectives of this memo are to:

1. Evaluate the Draft PEIS with respect to format and content (specifically technical content)
2. Develop comments from the results of the evaluation and ultimately, submit those comments to the lead agency

#### GENERAL CRITIQUE OF THE DPEIS

The DPEIS follows suggested formats from the DOE's Recommendations, and appears to be written with the intent of NEPA in mind. The preparers and stakeholders were clearly identified in the DEIS. The BLM estimates that as many as 5,000 people participated in the scoping process by attending public meetings, providing comments, requesting information, or visiting the Wind Energy Development PEIS Web site, so the public was involved. However, there was not a wide range of alternatives provided. Basically, either the wind development happens or there is no action. The level of development would have to be decided specifically for each site. The impacts and mitigations for this project are discussed thoroughly. However, the language of the mitigations section does not appear to be restrictive enough. In general, the Draft PEIS is well organized, easy to follow and written in a way that the general public can understand it.

80032-8

80032-9

TECHNICAL CRITIQUE

The Geologic Resources Section 5.1 of the DPEIS states the following:

“Geological hazards that could affect the construction and operation of a wind energy development site include landslides, rock falls, earthquakes, and volcanic activities. Earthquakes and volcanic activities happen in areas under specific geologic conditions and are determined by the local geology. Site construction activities can destabilize slopes if they are not conducted properly. Slope failures can occur naturally or be enhanced by slope modifications that change the local groundwater regimes and slope angles. In regions that have active earthquakes or volcanoes, heavy precipitation, or where geologic hazards are common, slope stability is sensitive to minor changes of landscape because of human intervention. Also, the water quality downslope of a failed slope can be adversely affected.”

In addition the Water Resources Section 5.3 states:

“A wind energy project can impact surface water and groundwater in several different ways, including the use of water resources, changes in water quality, alteration of the natural flow system, and the alteration of interactions between the groundwater and surface water.”

The following is one of the mitigation measures to address the potential impacts:

“Operators should identify unstable slopes and local factors that can induce slope instability (such as groundwater conditions, precipitation, earthquake activities, slope angles, and dip angles of geologic strata). Operators also should avoid creating excessive slopes during excavation and blasting operations. Special construction techniques should be used where applicable in areas of steep slopes, erodible soil, and stream channel/wash crossings.”

I feel that the language in the mitigation measure is not strong enough. Changing the “should” in the first sentence to “shall” would be more effective. Ideally, a requirement for a complete hydro-geologic assessment of each proposed site prior to the planning phase would be a better mitigation. These issues are addressed in sections 4.1 and 4.3 but should be re-iterated in the proposed mitigations section.

The Water Quality Section 5.3.2.2 mentions discharge of wastewater or sanitary water at the proposed sites. However, this issue is not addressed in the proposed mitigations section. Will some of these sites have a wastewater discharge? What would be the source of the wastewater? Will wastewater be treated on site and if so what will the minimum treatment levels be?

Section 3.1.2.1 of the DPEIS notes that it is possible that local roads might require fortification of bridges and removal of obstructions to accommodate overweight or oversized shipments, particularly the turbine components. Moreover, the wind energy development project access road

80032-1  
(cont.)

80032-2  
(cont.)

80032-3  
(cont.)

must be constructed to accommodate such shipments. One of the mitigation measures in Section 5.6.5. reads:

“A comprehensive transportation plan should be developed, particularly for the transport of turbine components, main assembly cranes, and other large pieces of equipment. The plan should consider specific object sizes, weights, origin, destination, and unique handling requirements and should evaluate alternative transportation approaches (e.g., barge or rail). In addition, the process to be used to comply with unique state requirements and to obtain all necessary permits should be clearly identified.”

Again the language of the mitigation does not appear strong enough (should vs. shall). The mitigation measure does however, mention alternative transportation approaches. It would be interesting to see if the possibility of a sky crane (helicopter) for delivery from a staging area to the project site and to aid in installation would be feasible. Access roads would still need to be constructed, but not to the higher and more costly standards required to support the large heavy equipment. Also, avoiding the fortification of bridges and other existing road modifications would reduce possible erosion/runoff impacts and may prove more economical. Helicopters have been used in remote logging applications and installation of high-voltage towers where vehicle access is limited. The tradeoff of course would be the increase in noise impacts at roughly 80-100 decibels and potential safety issues (AEE 2004).

80032-3  
(cont.)

Upon further review of the DPEIS, I noticed that the language for the majority of the mitigating measures, although consistent, is not strong enough. The term “should” is used when “shall” would seem to ensure compliance with the mitigating measures. For example, a mitigating measure for the Hazardous Materials and Waste Management Impact Section 5.7 states:

“The BLM should be provided with a comprehensive listing of the hazardous materials that would be used, stored, transported, or disposed of during activities associated with site monitoring and testing, construction, operation, and decommissioning of a wind energy project.”

The provision of a Hazardous Materials List should be mandatory. The manner in which the mitigating measure is written allows the contractor to think that skipping this step is not important, and there is no implication that there would be any repercussions for not complying with the mitigating measure. Also, there are no discussions in the DPEIS of what might happen if mitigations are unsuccessful.

80032-6  
(cont.)

Studies have been performed in regard to lightning protection for wind turbine systems (McNiff 2001). Section 3.3 Health and Safety Aspects of Wind Energy Projects, lists lightning storms as part of an emergency procedure plan but there is no mention of construction methods for physical

80032-4  
(cont.)

protection. Is there a plan to incorporate BMPs for lightning protection, specifically for wind turbines, into the EIS?

80032-4  
(cont.)

Implementation of a large scale Wind Energy Development over a region of 11 western states would require a great deal of raw materials and resources for the components of the turbines. Will there be a requirement or incentive to use recycled materials whenever possible in the BMPs?

80032-3  
(cont.)

#### CONCLUSION

The BLM has determined that the establishment of a Wind Energy Development Program would be a major federal action as defined by the National Environmental Policy Act of 1969 (NEPA). Thus, the BLM has prepared this draft programmatic environmental impact statement (PEIS). Upon reviewing the Draft PEIS, the following comments were developed:

- Requirements for Hydro-geologic studies should be included in the proposed mitigations section
- Discharge of wastewater is mentioned as a potential water quality issue but is not mentioned in the proposed mitigations section
- Use of sky cranes as part of the Transportation Considerations Section 3.5 should be considered to reduce the need for road construction/modification, especially if roads are to be temporary
- A provision for lightning protection specific to wind turbines should be included in the Overview Section 3
- Use of recycled materials whenever possible should be included in the proposed BMPs
- The language of the mitigation measures needs to be stronger, e.g. "should" should be changed to "shall"
- No discussion on what may happen if mitigation measures are unsuccessful is provided

## REFERENCES

U.S. Department of the Interior Bureau of Land Management. *Draft Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United State, DES 044*. September 2004.

McNiff, Brian. *Wind Turbine Lightning Protection Project*. National Renewable Energy Laboratory. Golden Colorado, 1999-2001.

Office of Environment and Energy (AEE). [www.aee.faa.gov/noise/AC\\_36-1H.htm](http://www.aee.faa.gov/noise/AC_36-1H.htm)

**Responses for Document 80032**

**80032-001:** 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.

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, including any hydro-geological assessment, will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders.

**80032-002:** The 2nd bullet under the Hazardous Materials and Waste Management heading of Section 2.2.3.2.2, Plan of Development Preparation, requires operators to develop a waste management plan identifying waste streams and waste-specific management and disposal requirements. This proposed BMP has been rewritten to clarify that the waste streams to be addressed in this plan include wastewater.

**80032-003:** The purpose of Chapter 3 is to describe a reasonable wind energy development scenario in order to assist in the assessment of impacts and the development of BMPs. The proponent would be responsible for compliance with applicable road construction and transportation standards or for proposing the use of helicopters as a more cost-effective, alternate means of transportation.

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

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.

**80032-004:** Although not specifically addressed in the PEIS, it is the BLM's understanding that wind turbine manufacturers are well aware of the potential for lightning strikes and will have incorporated lightning protection into their wind turbine designs. Nonetheless, the 2nd bullet under the Health and Safety heading in Section 2.2.3.2.2, Plan of Development Preparation, has been modified to include lightning protection standards as one of the elements to be addressed in the health and safety plan.

- 80032-005:** The BLM does not intend to place requirements on operators for the use of recycled materials in the construction or operation of a wind energy project. Such use will be evaluated by the operators, in part, on the basis of cost and suitability of materials.
- 80032-006:** 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.
- 80032-007:** The BLM is committed to full implementation of the Wind Energy Development Program, elements of which require the incorporation of adaptive management strategies and comprehensive 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 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. Site-specific monitoring programs will evaluate, among other things, the effectiveness of project-specific mitigation measures. 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.
- 80032-008:** Thank you for your comment. We appreciate your input and participation in the public review process.
- 80032-009:** 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.

**Document 80033****WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Wednesday, December 01, 2004 4:47 PM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80033

Thank you for your comment, Amy Myers.

The comment tracking number that has been assigned to your comment is 80033. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 1, 2004 04:47:09PM CDT

Wind Energy EIS Draft Comment: 80033

First Name: Amy  
 Middle Initial: C  
 Last Name: Myers  
 Address: P.O. Box 7493  
 City: Jackson  
 State: WY  
 Zip: 83002  
 Country: USA  
 Email: acmyers@uvm.edu  
 Privacy Preference: Don't withhold name or address from public record

**Comment Submitted:**

As an advocate of wind energy I believe that as long as the siting process is done in an optimal manner to decrease adverse impact the implementation of them in BLM areas would be an improvement for the entire community.

80033-1

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

**Response for Document 80033**

**80033-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

## Document 80034

### WindEISArchives

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**From:** windeiswebmaster@anl.gov  
**Sent:** Wednesday, December 01, 2004 5:30 PM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80034

Thank you for your comment, Keith Peters.

The comment tracking number that has been assigned to your comment is 80034. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 1, 2004 05:29:42PM CDT

Wind Energy EIS Draft Comment: 80034

First Name: Keith  
Middle Initial: G  
Last Name: Peters  
City: #####  
State: ##  
Zip: #####  
Country: USA  
Privacy Preference: Withhold address only from public record

Comment Submitted:

Wind is an underutilized yet very sustainable source of energy. It's an energy source that is much less invasive and destructive than resources that must be extracted.

I strongly support the conclusion that the proposed action appears to provide the best approach for managing wind energy development on BLM-administered lands.

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

80034-1

**Response for Document 80034**

**80034-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

## Document 80035

**WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Thursday, December 02, 2004 12:30 AM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80035

Thank you for your comment, Lester Williams.

The comment tracking number that has been assigned to your comment is 80035. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 2, 2004 12:30:06AM CDT

Wind Energy EIS Draft Comment: 80035

First Name: Lester  
 Middle Initial: E  
 Last Name: Williams  
 Organization: USNavy Retired  
 Address: #####  
 City: #####  
 State: ##  
 Zip: #####  
 Country: USA  
 Email: #####  
 Privacy Preference: Withhold address only from public record

**Comment Submitted:**

Please contact me by email or phone at ##### ABOUT how to learn more about a piece of property located in the Four Corners area of Southwestern Colorado that might be available along with some deeded land adjacent to it. It may also have something special concerning that I am a 100% disabled US veteran. Thank you, Lester E. Williams, #####  
 #####, ## #####

80035-1

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

**Response for Document 80035**

**80035-001:** 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. We appreciate your input and participation in the public review process.

## Document 80036

**WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Thursday, December 02, 2004 3:15 AM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80036

Thank you for your comment, Thomas Catino.

The comment tracking number that has been assigned to your comment is 80036. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 2, 2004 03:14:31AM CDT

Wind Energy EIS Draft Comment: 80036

First Name: Thomas  
 Middle Initial: F  
 Last Name: Catino  
 Privacy Preference: Withhold address only from public record

**Comment Submitted:**

I strongly support the use of federal lands for Wind Power turbines. One dependence of fossil fuels & the excess carbon dioxide produced by burning them has helped to create global problems. I believe the new Wind /Hydrogen systems developed by US WindFarming to be the best systems available & should be sought out for inclusion of wind projects on Federal lands.

Wind Energy Cooperatives to Produce Electricity and Hydrogen for the Residential, Commercial and Transportation Industry Nationwide

CHICAGO--(BUSINESS WIRE)--Nov. 17, 2004--U.S. Wind Farming, Inc. (Pink Sheets:USWF - News): U.S. Wind Farming, Inc. will install the "Next Generation" of Integrated Renewable Energy Systems utilizing Decentralized Hydrogen Technology. This will become an important application for the Nation's Agricultural Community providing a considerable economic base while going far in removing this nation from dependence on foreign oil.

U.S. Wind Farming, Inc. (Pink Sheets:USWF - News), "America's Only Publicly Traded Wind Energy Company," (www.uswindfarming.com) announced their plans today to commission the Advanced Technology of GE Wind Turbines and Stuart Energy's Proprietary Integrated Hydrogen Generation Water Electrolysis Technologies. This is to provide U.S. Wind Farming's Wind Energy Cooperatives the ability to produce Commercially Viable Renewable and Clean Energy Commodities (Electricity & Hydrogen) thus "Unlocking" Substantial New Renewable Energy Reserves Nationwide.

U.S. Wind Farming announces the next generation of Wind Farming Technologies creating not only electricity for sale during Peak Load Requirement times, but then producing Hydrogen for sale during off-peak times. This provides U.S. Wind Farming with the ability to "Harvest the Power of the Wind" to create valuable commodities garnering prime prices during all times of wind generation. This also allows U.S. Wind Farming to establish Wind Energy Electricity/Hydrogen Cooperatives nationwide in areas previously thought to not be viable candidates for wind energy development because of reduced wind velocities.

U.S. Wind Farming expects to commission GE Wind Energy (www.gewindenergy.com) to install and maintain all Wind Turbines for their Wind Energy Electricity/Hydrogen Cooperatives nationwide.

U.S. Wind Farming expects to commission Stuart Energy (www.stuartenergy.com) to install and maintain all Hydrogen Production/Pressurization/Storage and Dispensing equipment for their Wind Energy Electricity/Hydrogen Cooperatives nationwide.

Existing wind farms and new wind energy capable sites for these revolutionary new Wind Energy Electricity/Hydrogen Cooperatives have approached U.S. Wind Farming. Initial sites under consideration for development are located in California, Hawaii, Nebraska, North Carolina, New York, Tennessee, Oregon, Colorado, Wisconsin, South Dakota, North Dakota and Iowa.

U.S. Wind Farming, Inc. states that with the advent of this new paradigm of energy production, their Wind Energy Electricity/Hydrogen Cooperatives will not only provide extreme gains for our environment which is attractive to all the inhabitants of this Planet, but they have developed a way for Wind Energy to compete with all aspects of the fossil fuel industry, while providing considerable financial gain to the company and local farming communities. The company states that their Wind Energy Electricity/Hydrogen Cooperatives will go far in removing this nation's reliance on foreign oil.  
sincerely, Thomas F Catino

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

**Response for Document 80036**

**80036-001:** Thank you for your comment. We appreciate your input and participation in the public review process.

## Document 80037

**WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Thursday, December 02, 2004 7:58 AM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80037

Thank you for your comment, Peter Knox.

The comment tracking number that has been assigned to your comment is 80037. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 2, 2004 07:58:05AM CDT

Wind Energy EIS Draft Comment: 80037

First Name: Peter  
 Last Name: Knox  
 Email: #####  
 Privacy Preference: Withhold address only from public record

**Comment Submitted:**

It has been said that one of the difficulties inherent in developing wind energy in my state of North Dakota is the distance that exists between the western part of the state and any significant population center. Everyone knows that the wind blows a lot in North Dakota and that there is plenty of non-cropland in the west half of the state to put up wind turbines. The trouble is getting the resultant harnessed energy to a population center without losing too much power in the transfer of that energy over long distances.

It is my understanding that electricity "travels" more effeciently over cold wires. Because the North Dakota winter is famous for being cold, perhaps the energy could be sent during the winter months. During the summer months, when the outside temperature is warmer, the power lines warm up as well making the transfer of energy less efficient. During these warmer periods, perhaps the energy could be stored close to the site of the wind turbine in some sort of battery cell until the onset of winter when the power lines would become cold again thus making the transfer of power over long distances more effecient.

80037-1

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

**Response for Document 80037**

**80037-001:** 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. We appreciate your input and participation in the public review process.

## Document 80038

**WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Friday, December 03, 2004 10:53 AM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80038

Thank you for your comment, Richard Stoffle.

The comment tracking number that has been assigned to your comment is 80038. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 3, 2004 10:52:57AM CDT

Wind Energy EIS Draft Comment: 80038

First Name: Richard  
 Middle Initial: W  
 Last Name: Stoffle  
 Organization: University of Arizona  
 Address: 319 Anthr Bldg  
 City: Tucson  
 State: AZ  
 Zip: 85721  
 Country: USA  
 Privacy Preference: Don't withhold name or address from public record

**Comment Submitted:**

Our research team studied the potential placement of a wind farm on Shoshone Mountain located on the Nevada Test Site. The study found a wide range of American Indian sacred sites and other sacred resources such as viewscapes needed for vision questing. This Wind Farm was assumed to have no impacts because the area is isolated. No General EIS could have anticipated the very important negative impacts found during a site specific study. GEIS are a bad idea but especially with new technologies being placed in new places.

80038-1

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

**Response for Document 80038**

**80038-001:** The PEIS states that site-specific research would be necessary for any wind development project. The purpose of the PEIS is to provide agencies with an understanding of the types of effects wind development projects could have on the environment in general terms.

## Document 80039

**WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Friday, December 03, 2004 10:55 AM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80039

Thank you for your comment, Stewart Rosenkrantz.

The comment tracking number that has been assigned to your comment is 80039. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 3, 2004 10:54:33AM CDT

Wind Energy EIS Draft Comment: 80039

First Name: Stewart  
 Last Name: Rosenkrantz  
 Address: 2319 SE 9th St.  
 City: Pompano Beach  
 State: FL  
 Zip: 33062-6704  
 Country: USA  
 Email: srosenkr@bellsouth.net  
 Privacy Preference: Don't withhold name or address from public record

**Comment Submitted:**

Wind energy development is mandatory but it must be done with a minimum effect on the environment. It's known that birds fly into the turbines and there could be a way to keep birds out such as putting the generators in a screened in area.

80039-1

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

**Response for Document 80039**

**80039-001:** As required by the Wind Energy Development Program proposed policies and BMPs, any wind energy project proposed for BLM-administered lands shall be planned to minimize or mitigate impacts to wildlife habitats, and other resources and land uses. The policies and BMPs require the collection, evaluation, and consideration of site-specific information on ecological and other resources, with these analyses providing a basis for the siting and design of the wind facility to minimize or mitigate environmental impacts, including avian collisions with project structures. The scope and approach for site-specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this process, the BLM will develop project-specific siting and design stipulations for incorporation into the POD. No text change has been made to the document in response to your comment.

**Document 80040****WindEISArchives**

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**From:** windeiswebmaster@anl.gov  
**Sent:** Friday, December 03, 2004 12:52 PM  
**To:** WindEISArchives  
**Subject:** Wind Energy EIS Comment 80040



Wind\_Energy\_8004  
0.doc (185 KB)...

Thank you for your comment, Seth Wittke.

The comment tracking number that has been assigned to your comment is 80040. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 3, 2004 12:51:30PM CDT

Wind Energy EIS Draft Comment: 80040

First Name: Seth  
Last Name: Wittke  
Organization: Wyoming State Geological Survey  
Address: P.O. Box 1347  
City: Laramie  
State: WY  
Zip: 82073  
Country: USA  
Privacy Preference: Don't withhold name or address from public record  
Attachment: H:\Wind Energy.doc

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



**WYOMING STATE GEOLOGICAL SURVEY**

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**STATE GEOLOGIST – Ronald C. Surdam**

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BLM Wind Energy Programmatic EIS      December 2, 2004  
Argonne National Laboratory EAD/900  
9700 S. Cass Avenue  
Argonne, IL 60439

Seth Wittke of the Hazards Section of the Wyoming State Geological Survey has the following comments on the BLM Wind Energy Programmatic EIS.

Although sections in the plan deal with surface disruption, there aren't any specifics notably because of the large scale of the study. In most of the western states, there are stabilized dunes which exist in areas that would be suitable for wind power development. Proper precautions should be taken in order to maintain the stability of these landforms.

80040-1

Also, any study on slope stability should be taken with a grain of salt. Due to current drought conditions in the mountain west, slopes which seem stable in dry conditions may not be when the drought cycle ends.

Finally, proposed construction near aquifer recharge areas should be closely monitored to reduce the potential for contamination of said aquifer. This may require a study to determine localized aquifer recharge areas.

80040-2

Sincerely,

Ronald C. Surdam  
Director and State Geologist

Cc: Governor's Planning Office

**Responses for Document 80040**

- 80040-001:** As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, including analyses of slope and soils stability, will be conducted for any proposed project on BLM-administered lands. The scope and approach for site-specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this process, the BLM will develop project-specific stipulations for incorporation into the POD.
- 80040-002:** The text in Section 5.3.5 has been revised in response to your comment.