Document 80074

WindEISArchives

From: windeiswebmaster@anl.gov
Sent: Friday, December 10, 2004 3:06 PM
To: WindEISArchives
Subject: Wind Energy EIS Comment 80074

BLM_Wind_Power_
EIS_Comments120...

Thank you for your comment, Heidi Youmans.

The comment tracking number that has been assigned to your comment is 80074. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 10, 2004 03:06:09PM CDT

Wind Energy EIS Draft Comment: 80074

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Attachment: C:\Documents and Settings\cf2760\My Documents\nongameprog\BLM Wind Power EIS Comments120904.doc

Comment Submitted:
The following letter of comment will be mailed via the U.S. Postal Service today.

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

Montana Fish, Wildlife & Parks

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December 10, 2004

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

Dear EIS Team Members,

Montana FWP applauds BLM for conducting a programmatic analysis of potential wind energy development on BLM lands and we appreciate the opportunity to provide input. We have confined our comments to the wildlife portions of the analysis.

It is not realistic to expect that loss of wildlife habitat value and function as a result of conversion, disruption and fragmentation can be compensated for through mitigation measures. Therefore, the key to avoiding or eliminating impacts of wind power development on wildlife is site selection. An efficient approach to minimizing impacts to wildlife (in terms of time and expense and controversy) would be to pro-actively steer wind energy development toward sites with comparatively low wildlife habitat values. Selection of the best sites for wind power generation would be further enhanced by ruling out sites with known, outstanding wildlife values from consideration for wind power development. Otherwise, much time, effort, and money would be wasted trying to accomplish the impossible job of designing wind power developments at sites with obviously high and/or widely recognized wildlife values. In the long-term, public support of wind power generation as a wildlife-friendly, renewable source of power is dependent on wind power development on sites with comparatively low wildlife values, and therefore, relatively lower impacts on wildlife. For all of the aforementioned reasons we suggest an increased emphasis on pre-development planning and site selection including collection of baseline wildlife data. 80074-1

Areas of comparatively low wildlife habitat values that could be most suitable for wind power development include tilled agricultural fields, sites planted to exotic monocultures such as crested wheatgrass and areas where wildlife habitat values have already been compromised as a result of fragmentation. Criteria that could be used to delineate areas as unsuitable for wind power development on the basis of high wildlife values could include presence of threatened or endangered species and wildlife species deemed "of

concern" in Montana, sites with high wildlife species diversity and/or population densities and large blocks of contiguous, unfragmented wildlife habitat.

Another criterion that should be used to distinguish least suitable development sites from the most suitable sites is the distance of new transmission line required to connect the proposed development to the existing power distribution grid. Sites closest to existing transmission lines would be most suitable for development from a wildlife point of view. In order to minimize impacts to wildlife, new transmission lines should be located underground whenever possible and any new above-ground transmission lines (and other associated structures) should be located along existing roadways and in existing powerline corridors – as opposed to traversing unfragmented wildlife habitat.

We are surprised that the Wind Energy Programmatic EIS does not rely upon the 2003 FWS *Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines* (http://www.fws.gov/r9dhcbfa/windenergy.htm) other than to include this document in a list of references on pages 3-32 through 3-34 - especially in light of the fact that BLM's 2002 *Interim Wind Energy Development Policy* did rely heavily upon on the precursor, 2002 FWS *Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers*. We believe that the pro-active emphasis of the 2003 FWS Guidance, including pre-development evaluation of wildlife habitat values and collection of baseline wildlife data to detect flying birds, bats and insect masses at the proposed site, are key to avoiding or minimizing impacts of wind energy development to wildlife. In addition to evaluating potential wildlife values at a targeted development site, the pre-development assessment process featured by the 2003 FWS Guidance would provide BLM a means of contrasting and ranking potential wind power development sites on the basis of potential threats that each site poses to wildlife. 80074-1 (cont.)

Chapter 2 Proposed Action and Alternatives

Page 2-4 and 2-5: Proactive selection of sites with the least impact to wildlife for wind power development would be facilitated by the use of evaluation processes embodied in the 2003 FWS Guidance. This could be accomplished by incorporating Elements of the 2003 FWS Guidance into the proposed "policy" measures (pages 2-6 through 2-9) and the "best management practices" (page 2-9 through 2-23). 80074-2

Pages 2-9 through 2-10: Pre-development surveys should include evaluation of the site (per the 2003 FWS Guidance) and collection of baseline wildlife data. Use of guy-wired structures should be avoided. This section could be improved by incorporating wildlife features identified in the 2003 FWS Guidance for consideration, including bat hibernacula, sensitive bird areas, bird migration routes and critical wildlife habitats. 80074-3

Pages 2-9 through 2-25: Qualifying language (including the phrases "should be," "to the extent feasible" and "wherever possible) incorporated in the listed "best management practices" make this section read more like a list of "nice considerations to follow if convenient to do so" rather than tangible "practices" (as defined on page 2-2). This qualifying language, combined with the impression that these best management practices 80074-4

come into play after a proposal has become an approved "project" that will go forward no matter what, leave us concerned that the proposed BMPs would be of limited utility for maintaining or mitigating negative impacts to wildlife values. 80074-4 (cont.)

Chapter 3 Site Monitoring and Testing Activities

Pages 3-1 and 3-2: Pre-development, baseline data on bird and bat use of a proposed development site is necessary to identify threats posed to birds, bats and rare, threatened and endangered species. When conducted during the proposal phase of a project, this type of information can be used to reduce impacts of the project to wildlife including adjustments in siting of the development or configuration of the turbines, or even to decide against development at the site if potential wildlife impacts are found to be excessive. An up-front investment in site assessment and baseline wildlife surveys reduces the potential for a scenario in which some or all turbines would ever have to be shut down during seasonal high wildlife use periods or re-located because of unforeseen, excessive wildlife mortality. 80074-5

Chapter 5 Potential Impacts and Analysis of Mitigation Measures

Figure 5.9-1 illustrates that the areas with medium to high potential for wind energy development in Montana are largely semi-arid grass and shrubland habitats within the Northwest Glaciated Plans and Northeast Great Plans ecoregions. Within those ecoregions we recommend that:

- Intact (unfragmented), functional grassland and sagebrush habitats should be avoided as sites for wind power development. These habitats have experienced substantial losses over the past 100 years with the result that wildlife species associated with these habitats have declined throughout their range. Many wildlife species "of concern" are associated with these habitats, the result of decades of habitat loss and fragmentation. Remaining blocks of grassland habitat, especially those over 4,000 acres in size, are of great biological value because of their functional nature for a wide host of native wildlife. Much of this habitat remains on BLM land because losses have been much higher on private lands. 80074-6

- Sagebrush/grassland habitats that support sage grouse and other sagebrush-dependent wildlife should be avoided as sites for wind power development. We recommend that the 5-mile buffer from the 2003 FWS Guidance be adopted by BLM to protect sage grouse breeding, brood rearing, and winter habitats.

- Intact wetland/grassland complexes that provide critically important habitat for breeding and migrating wetland birds (e.g., waterfowl, shorebirds, wading birds) should be avoided as sites for wind power development. The medium and high-wind potential areas along the border with Canada include some of Montana's highest wetland densities. Considerable effort and resources have been expended by state and federal agencies and non-governmental organizations to conserve these habitats because of their importance for waterfowl and shorebird

production. Remaining natural wetlands and wetlands constructed at great expense are too valuable to compromise. In addition, run-off from development sites should be avoided at all costs to reduce impacts to the nearby water resources.

We concur that full evaluation of the potential impacts listed on pages 5-36 and 5-37 can only be done at the local, site basis. The most unknown wildlife parameters here in Montana are the location, extent and site-specific features of migration routes used by migratory birds and bats. Unfortunately, there has never been a source of funding to obtain baseline data for the purpose of identifying migration routes and topographical features within migration corridors used by flying insects, bats and birds to gain lift and maintain flight elevation and speed. 80074-6 (cont.)

Page 5-37: Impacts of site monitoring and testing activities are described as being minimal. While this may be true in many areas, the impacts of site monitoring and testing could not be considered minimal in areas that are currently roadless since installation of test equipment generally requires road access. 80074-7

Page 5-42 Habitat Disturbance: The last sentence in this section describes forest interior birds and some gallinaceous birds as being especially affected by habitat fragmentation. This seems to downplay the impacts of habitat fragmentation in native grasslands and sagebrush/grassland habitats. Fragmentation is an impact that affects all wildlife habitats but has been most studied and reported in forested habitats. 80074-8

Page 5-43 Table 5.9.2-2: We are inclined to consider "disturbance of migratory movements" a long-term, rather than a short-term impact – especially in the case of migratory birds – and possibly bats. 80074-9

Page 5-44 and 5-45: Although much of the research on the impacts of noise on wildlife has been conducted on birds, there is increasing evidence that noise may impact other species that rely on vocalization for communication or navigation, including bats and frogs.

The statement that blast noise has no unusual effects on wildlife is not substantiated. Although wildlife can readily habituate to loud noises in their environment, the irregular, unpredictable nature of blasting during construction would be much more disruptive than regular and predictable sounds such as highway traffic. Sudden loud noises can cause birds of prey to rapidly exit their nests, potentially kicking out eggs or small chicks in the process. Blasting should be avoided during the nesting season for birds and especially within ½ mile of raptor nests. 80074-10

Page 5-46 Construction Effects on Wetland and Aquatic Biota: This section is very vague and does not define the types of wetlands to be avoided. Under the current system for delineating jurisdictional wetlands, many small depressional wetlands are not protected. Yet these seasonal wetlands provide important migration habitat for birds, especially in the prairie pothole region. These wetlands also provide important breeding 80074-11

sites for amphibians. Some ridges in eastern Montana feature "perched wetlands" that are also temporary in nature. Nationally, temporary wetlands have been identified as most impacted by decades of filling and draining. Turbines should not be positioned within the flight pathways used by birds to move to and among wetland habitats and associated transmission lines should not bisect wetland habitats. Here in Montana, the carcasses of birds killed in collisions with over-water transmission lines have been implicated in promoting high bird mortality due to botulism. 80074-11 (cont.)

The crossing of stream corridors by transmission lines and roads is yet another issue that needs to be addressed with more specific criteria including the need to mark over-strream lines to reduce bird strikes. In the case of stream crossings, the relative merits of a buried crossing versus an overhead crossing would need to be evaluated on a case-by-case basis, and would need to consider impacts on both fisheries and wildlife. 80074-12

Pages 5-47 and 5-48 Erosion and Runoff: The last paragraph indicates that projects would be subject to the CWA if 5 or more acres of wetlands were impacted by runoff. Again, the protection of *jurisdictional* wetlands would not protect many smaller, depressional wetlands that may be important breeding sites for amphibians. All wetlands that function as amphibian breeding sites should be protected from runoff, whether or not they are large enough to fall under the jurisdiction of the Clean Water Act. 80074-13

Page 5-51 Site Maintenance: In the case of a site that supports ground-nesting bird populations, mowing deemed to be necessary for "site maintenance" should be delayed until after August 15 to allow young birds to fledge. 80074-14

Page 5-61: The fact that many of the recorded bird fatalities are relatively common resident species points out the urgent need to avoid natural habitats of concern such as native prairie and sagebrush habitats. Few BLM lands in eastern Montana support populations of house sparrows or starlings, because those species are closely tied to human habitation. Therefore we would expect very low mortalities of these non-native species, but higher mortalities of native species including western meadowlarks and vesper sparrows. Several of our grassland bird species, such as the Sprague's pipit, have aerial courtship flights, which would make them more susceptible to mortality from turbines and transmission lines. 80074-15

Page 5-62: Even though an individual wind facility may cause few bird deaths, the cumulative impacts of many wind generating facilities across the nation could be significant. The same is true of bird deaths in oil sludge pits. Nationwide estimates of bird deaths in these pits were in the millions, even though individual pits were not causing significant mortality. Location of all wind generating facilities to minimize bird strikes will be critical to the successful avoidance of significant impacts on bird populations. 80074-16

Page 5-64: No one has established whether the relationship between raptor fatalities and rotor-swept area (RSA) is a linear relationship. 80074-17

Page 5-65: A buffer zone is suggested to protect nesting raptors, but no distance is suggested. We suggest a buffer zone of 1 mile around raptor nest sites. 80074-18

Page 5-68: We believe that insufficient information has been gathered to make any definitive conclusions on the impacts of any wind power project on bat populations. 80074-19

Page 5-69: Several species closely resemble the little brown bat and can be extremely difficult to distinguish from them. In Montana, both the Yuma myotis and Northern myotis are very difficult to distinguish from the little brown bat. Also, recent studies being conducted on the genetics of bats in the genus *Myotis* are indicating that the "little brown bat" may actually include three cryptic species. Evaluation of the impacts of wind projects on bats after they have been built should include daily searches for carcasses (10-day or 2-week search intervals commonly used tend to miss a lot of bat carcasses), and genetic testing should be conducted on all *Myotis* bats to verify the species identification. 80074-20

Page 5-70: More research needs to be done before it can be concluded that "bats generally do not forage above 25 m" since little data exists on the foraging altitudes for most bats. Foraging altitude may vary, depending on insect activity. 80074-21

Other general comments regarding bats: Little is known about bats in Montana. Multi-year, site-specific investigation is necessary to collect data required to evaluate impacts and plan wind developments to avoid impacts to bats. Therefore, absence of existing data on bats should not be interpreted as an absence of bats.

Studies done to date suggest that bat densities are higher in forested areas than in open, non-forested habitats. One can conclude that wind facilities located in forested areas, especially riparian forests, and other known or potential roosting habitat including cliffs, steep rocky slopes, badlands, rock formations, caves, mines, and buildings would pose the greatest threats to bats. Sites that feature water sources should be avoided, including wetlands, springs, creeks, and stock ponds. Since riparian habitats, wetlands, and cliffs are also important habitats for raptors and other birds, buffer zones around these habitats should be at least 1 mile, unless research demonstrates that a smaller buffer zone will be adequate in a specific situation. Larger buffer zones may be required in some circumstances (such as avoiding bat flyways between roosting sites and feeding areas over wetlands). 80074-22

Page 5-75: The most effective avenue to avoid or minimize detrimental impacts to threatened and endangered species is through pre-development site evaluation and collection of baseline wildlife data, per procedures outlined in the 2003 FWS Guidance. 80074-23

Page 5-76 through 5-84 Mitigation Measures: An increased emphasis on pre-development site evaluation and collection of baseline wildlife data per the 2003 FWS Guidance would reduce the reliance that the Wind Energy Programmatic EIS currently places on after-the-fact mitigation measures. Use of "qualifiers" (such as "to the extent practicable," and "should be") makes this section read as "things to consider – if convenient" rather than mitigation measures. In addition, terminology such as "near" (a 80074-24

bat colony) and "harassment" needs to be replaced with more specific language that can assist decision-making. Specific distances and other parameters needed in this section could be taken from the 2003 FWS Guidance, existing conservation plans, or developed by committees of experts. 80074-24 (cont.)

Collection of pre-development wildlife baseline data is key to avoiding development of wind energy in a manner/at sites that impact raptor species. We concur that sites occupied by colonial mammal species (pocket gophers, ground squirrels, prairie dogs) that serve as prey for raptors should be avoided. For the same reason, cover that supports rabbits should be removed. Any new above-ground power lines and other structures should be made raptor-safe. 80074-25

Thank you for the opportunity to comment.

Sincerely,

Don Childress

Don Childress
Administrator, Wildlife Division

Responses for Document 80074

80074-001: The siting of a wind energy development will be determined at the project level as part of the site-specific analyses or through local land use planning efforts with opportunities for full public involvement. As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, including surveys to identify sensitive species, important habitats, and high wildlife use areas, will be conducted for any wind energy development project proposed for BLM-administered lands. The scope and approach for site-specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this process, the BLM will develop project- specific siting stipulations for incorporation into the POD. Site-specific analyses are beyond the scope of the PEIS.

The 2003 USFWS Interim Guidance was evaluated in the development of the policies and BMPs of the Wind Energy Development Program. The BLM and USFWS share a common objective in terms of minimizing potential impacts to wildlife from wind energy development activities. Many of the USFWS voluntary guidance recommendations are imbedded within the BLM's proposed policies and BMPs, reflecting consistent objectives and parallel approaches. However, because the USFWS guidance is interim and voluntary, it is inappropriate to adopt it wholly in the PEIS or in the proposed Wind Energy Development Program.

80074-002: The BLM and USFWS share a common objective in terms of minimizing potential impacts to wildlife from wind energy development activities. Many of the USFWS voluntary guidance recommendations are imbedded within the BLM's proposed policies and BMPs, reflecting consistent objectives and parallel approaches. However, because the USFWS guidance is interim and voluntary, it is inappropriate to adopt it wholly in the PEIS or in the proposed Wind Energy Development Program.

80074-003: The proposed Wind Energy Development Program includes a BMP that requires the avoidance of guy wires on permanent meteorological towers, and guy wires are not used in modern turbine designs. As discussed in the previous response, many recommendations of the 2003 USFWS Interim Guidelines are imbedded in the Wind Energy Development Program proposed policies and BMPs. However, it is inappropriate to fully adopt draft or interim guidance in the PEIS or in the proposed Wind Energy Development Program.

80074-004: 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.

80074-005: These activities are identified as BMPs to be implemented during the preparation of the Plan of Development. Section 5.9 provides extensive discussions on potential environmental impacts during each phase of a wind project. Section 5.9.5.1 presents possible mitigations of those impacts. Section 2.2.3.2.2 presents the BMPs that incorporate those mitigative actions, including baseline surveys.

80074-006: As required by the Wind Energy Development Program proposed policies and BMPs, site- and species-specific analyses, including habitat and wildlife surveys and the development of an appropriate monitoring program, will be conducted for any wind energy development proposed for BLM-administered lands. The scope and approach for these analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Regarding sage-grouse species, existing BLM guidance on the management of sage-grouse and sage-grouse habitat will be incorporated into local, site-specific analyses. Exclusions of specific areas from wind energy development will be determined at the project level as part of the site-specific analyses or through local land use planning efforts, with opportunities for full public involvement. 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.

80074-007: The text states that, "in general," impacts would be minimal because clearing and grading activities to gain access and install monitoring equipment would be limited in most cases. However, the text further states that more extensive impacts could result if more extensive clearing and grading were needed. No text change has been made to the document in response to your comment.

80074-008: The text does not downplay the impacts of habitat fragmentation on wildlife, but rather broadly discusses habitat fragmentation impacts to wildlife. The sentence regarding forest interior species and gallinaceous birds was presented to provide examples of categories of wildlife that have specifically been shown to be adversely affected by habitat fragmentation. This sentence has been deleted.

80074-009: The short-term impacts identified are only for construction activities. Migrating birds and bats would be expected to avoid the construction area and continue their migratory movements. Because construction would not be a long-term activity, such activities would most likely be absent for the next occurrence of migratory species in the area. The effects of the completed, operating facility on migratory activities is discussed under operational impacts and does identify the potential for long-term, population-level effects. No text change has been made to the document in response to your comment.

80074-010: No text change has been made to the document in response to your comment. The text identifies a variety of possible adverse effects of noise on wildlife, and states that noise may affect foraging, mating, and nesting of wildlife, not just

birds. However, the vast majority of work has been conducted on birds, and the many studies of the effects of noise from military (weapons firing, aircraft overflights) and construction (blasting, heavy equipment excavation) activities have shown few long-lasting effects (see the cited literature reviews of Larkin 1996 and Manci et al., 1988). Numerous studies of nesting raptors have shown these birds to relatively quickly habituate to such noises, even to irregular heavy weapons firings. The proposed Wind Energy Development Program includes a BMP that requires blasting activities to be used only at specific times and at specific locations from sensitive wildlife or streams and lakes, as established by the BLM or other federal or state agencies.

80074-011: The exclusion or avoidance of specific habitats or locations, such as wetlands and bird and bat flight corridors, from wind energy development will be determined at the project level as part of the site-specific analyses or through local land use planning efforts, with opportunities for full public involvement. As required by the Wind Energy Development Program proposed policies and BMPs, such site-specific analyses, including the identification of siting restrictions and exclusions areas, will be conducted for any wind energy project proposed for BLM-administered lands. The scope and approach for site-specific analyses will be determined on a project- by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this process, the BLM will develop project-specific siting stipulations for incorporation into the POD. Site-specific analyses are beyond the scope of the PEIS. No text change has been made to the document in response to your comment.

80074-012: As required by the Wind Energy Development Program proposed policies and BMPs, all wind energy projects proposed for development on BLM-administered lands must be designed to minimize or mitigate impacts to wildlife, including minimizing the potential for bird strikes. Specific design requirements will be developed on a site-specific, project-by-project basis using site-specific analyses. The scope and approach for site-specific analyses, as well as aspects of the facility design 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.

80074-013: Exclusions of specific areas from wind energy development will be determined at the project level and employing site-specific analyses. As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, including determinations of important ecological habitats, will be conducted for any proposed wind energy project on BLM-administered lands. The scope and approach for 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. Site-specific analyses and exclusions of important habitats are beyond the scope of the PEIS.

80074-014: This section addresses only operational impacts to vegetation, not wildlife. Potential impacts to wildlife from site maintenance activities are identified in Section 5.9.3.2.4. Because of the likely limited quality of the habitats that would be mowed, impacts to local wildlife are expected to be minor. No text change has been made to the document in response to your comment.

80074-015: The policies and BMPs that are part of the proposed Wind Energy Development Program include site- and species-specific studies to identify important and sensitive habitats, wildlife use areas, and the presence of listed species. These studies are intended to aid in the avoidance or minimization of design- and siting-related impacts to ecological resources. The scope and approach for these studies will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this process, the BLM will develop project-specific stipulations for incorporation into the POD. No text change has been made to the document in response to your comment.

80074-016: We concur. As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, including surveys to identify areas to be avoided in the siting of a wind energy facility, will be conducted for any proposed wind energy development proposed for 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. In addition, several BMPs identify specific types of settings (wetlands and riparian habitats) that are to be considered during the development of the siting and design components of the POD. Through this process, the BLM will develop project-specific siting stipulations for incorporation into the POD.

80074-017: While we agree, raptor fatalities have been commonly reported using this metric. The PEIS makes no statements or predictions regarding a linear relationship between raptor mortality and RSA. No text change has been made to the document in response to your comment.

80074-018: The identification and specification of exclusion areas, such as buffer zones around raptor nests, from wind energy development will be determined at the project level as part of the site-specific analyses or through local land use planning efforts with opportunities for full public involvement. As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, including the identification of raptor nests, will be conducted for any proposed project on BLM-administered lands. The scope and approach for site-specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and

interested stakeholders. Through this process, the BLM will develop project-specific siting and design stipulations for incorporation into the POD. The identification of specific exclusion areas and their characteristics is beyond the scope of the PEIS. No text change has been made to the document in response to your comment.

80074-019: The cited text makes no definitive conclusions on impacts to bats. It states that at one site, preliminary information suggests that population-level effects have not occurred. Following text states that effects on bat populations will vary by site and species, and that population-level effects may or may not occur. No text change has been made to the document in response to your comment.

80074-020: 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 BMPs also require the development of scientifically defensible monitoring programs to track environmental conditions, including wildlife mortalities. The scope and approach for these analyses, including the development of an appropriate monitoring program, will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this process, the BLM will develop project-specific stipulations for incorporation into the POD. Species- and site-specific analyses are beyond the scope of the PEIS. No text change has been made to the document in response to your comment.

80074-021: Comment noted and the text has been deleted.

80074-022: As required by the Wind Energy Development Program proposed policies and BMPs, site- and species-specific analyses, including the development of appropriate monitoring programs and identification of exclusion areas, will be conducted for any wind energy project proposed for BLM-administered lands. The scope and approach for site- and species-specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Exclusions of any areas from wind energy development will also be determined at the project level as part of the site-specific analyses, or through local land use planning efforts, with opportunities for full public involvement. 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.

80074-023: As required by the Wind Energy Development Program proposed policies and BMPs, species-specific analyses will be conducted for any proposed project on BLM-administered lands. The scope and approach for species- specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this process, the BLM will develop project- specific stipulations for incorporation

into the POD. The BLM and USFWS share a common objective in terms of minimizing potential impacts to wildlife from wind energy development activities. Many of the USFWS voluntary guidance recommendations are imbedded within the BLM's proposed policies and BMPs, reflecting consistent objectives and parallel approaches. However, because the USFWS guidance is interim and voluntary, it is inappropriate to adopt it wholly in the PEIS or in the proposed Wind Energy Development Program.

80074-024: The Wind Energy Development Program proposed policies and BMPs have been reworded in the Final PEIS to make them required elements of any wind energy development activity on BLM-administered land. These policies and BMPs require that site-specific and species-specific analyses be conducted for any proposed project on BLM-administered lands. The scope and approach for these 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. The proposed Wind Energy Development Program does not rely on "after-the-fact" mitigation.

The BLM and USFWS share a common objective in terms of minimizing potential impacts to wildlife from wind energy development activities. Many of the USFWS voluntary guidance recommendations are imbedded within the BLM's proposed policies and BMPs, reflecting consistent objectives and parallel approaches. However, because the USFWS guidance is interim and voluntary, it is inappropriate to adopt it wholly in the PEIS or in the proposed Wind Energy Development Program.

80074-025: The BMPs of the Wind Energy Development Program require facilities to be designed to avoid or minimize impacts to wildlife. Design requirements will be developed on a site-specific, project-by project basis through the use of site-specific analyses. The scope and approach for site-specific analyses and subsequent siting considerations 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.

Document 80075

WindEISArchives

From: windeiswebmaster@anl.gov
Sent: Friday, December 10, 2004 3:07 PM
To: WindEISArchives
Subject: Wind Energy EIS Comment 80075

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nments_EMNRD_0

Thank you for your comment, Michael McDiarmid.

The comment tracking number that has been assigned to your comment is 80075. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 10, 2004 03:07:00PM CDT

Wind Energy EIS Draft Comment: 80075

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Review Comments On BLM Draft PEIS
December 10, 2004

General Comments

- The New Mexico Energy, Minerals and Natural Resources Department (EMNRD) applauds this BLM initiative to encourage greater wind power development in the West. It complements one of our primary goals to encourage wind power development in New Mexico. One our primary means of encouraging the wind power industry is wind monitoring and collection of high quality data which we have provided to over 40 wind power developers.

- Wind power development offers important economic benefits that are addressed in the PEIS. EMNRD has commissioned and made available studies of the economic benefits of wind power development to local rural economies. We would be pleased to provide copies of these studies to BLM. The EMNRD economic analyses also utilized the IMPLAN input-output model that was utilized for the BLM analysis.

- The IMPLAN model allows the use of county-specific economic parameters to estimate "multiplier" effects, a measure of additional economic activity resulting from recirculation of money in the local economy. The results appear as "indirect" jobs and output. In the New Mexico study it was interesting to note that the counties analyzed had different multiplier effects; and that the cumulative state-wide economic impact was significantly greater than the sum of the counties' impacts, reflecting both benefits occuring in other parts of the state and crossover benefits between adjacent wind development counties. So, it was important to treat each county individually and to analyze state-wide impact with an integrated model. 80075-1

- Tourism may increase at certain wind energy facilities providing additional economic benefits. Although there seemed to be no quantitative studies of tourism at wind energy facilities available at the time EMNRD's study was performed, there is anecdotal evidence that wind energy facilities attract tourists. While very few people might travel long distances to visit a wind energy facility; it is more likely that travelers passing nearby may detour, visit, and remain in the locality longer to spend money. 80075-2

- Wind power development offers important environmental benefits, especially with regard to improvement of air quality, that are addressed in the PEIS. 80075-3

- The development of any energy technology poses some potential environmental impacts. The PEIS presents a very thorough analysis of the potential environmental impacts of wind power development. EMNRD has commissioned and made available studies of the potential 80075-4

environmental impacts of wind power in New Mexico. We would be pleased to provide copies of these studies to BLM. 80075-4 (cont.)

- EMNRD also has available for review and use by BLM considerable, high-quality data on wind speed monitoring and direction at various promising wind development sites throughout eastern New Mexico. These data were collected over the past few years as a result of installation and operation of seven meteorological towers by our agency. In addition, a high-resolution wind map of New Mexico was completed in 2003 and is available for your use. 80075-5

- In conjunction with the completion of this wind PEIS, it is important for BLM to ensure it has sufficient, qualified staff to timely review and process permit applications, environmental assessments and other regulatory documents for proposed wind facilities on its lands. We strongly encourage BLM to address such resource needs in its upcoming FY 2005-2006 budget request to Congress. 80075-6

Specific Comments

EMNRD offers the following detailed comments on the content of the PEIS:

- p. 1-1. There are approximately 500 MW of wind power installed on BLM land. It may be helpful to have a report on the environmental impact of these facilities and as well as an analysis of how this PEIS would have affected the development and outcome of those facilities. 80075-7

- p. 1-2. It is advisable to include in the scope transmission lines associated with wind power plants. Typically, siting transmission lines can be a more lengthy process than for the power plant. If the process is streamlined for wind power plants but not the associated transmission lines, then development may not be facilitated. 80075-8

- p. 2-2. The "Description of the Maximum Potential Development Scenario" refers to Table 5.13-1, which lists 1,060 MW total wind development for New Mexico by 2015, with only 108 MW on BLM land. However, there is a new initiative in New Mexico to explore the possibility of developing new transmission capability with the goal of generating and exporting 4,000 MW of wind power by 2015. If this transmission capacity is developed, it may result in much more development on BLM land. 80075-9

- Section 2.2.3.2.2 Plan of Development Preparation. Operators are required to perform certain surveys, reviews and evaluations. Guidance should be provided on the extent of these. 80075-10

- p.2-27. Notation MW/h should be MW (two places). 80075-11

- p. 3-12. Numerous laws and regulations are identified. BLM Wind Energy Development Program should provide specific guidance on how to comply with each of these requirements. 80075-12

- p. 5-48. In 5.9.2.4. "affects" should be "effects". 80075-13

- p. 5-60. Regarding waterfowl "incurring fatalities at wind energy developments", the example is presented that "none have been reported in Utah". But there are virtually no "wind energy developments" in Utah; only one small turbine (225 kw). So, the Utah example should not be used as an illustration on low fatalities. 80075-14

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Responses for Document 80075

80075-001: Thank you for your comment. We appreciate your input and participation in the public review process.

80075-002: While there may not be any quantitative evidence of tourism that is directly related to wind projects, as the commentor suggests, wind development may indeed lead to more tourist spending in an area as visitors add wind projects to other aspects of an area that might be visited. Measuring the impact of wind projects on tourism is problematic, with only anecdotal evidence of the impact. With the development of more wind resources, especially in the form of large-scale projects, it is possible that the significance of the impact of wind developments on tourism may become clearer.

80075-003: Thank you for your comment. We appreciate your input and participation in the public review process.

80075-004: Thank you for your comment. We appreciate your input and participation in the public review process.

80075-005: Thank you for your comment. We appreciate your input and participation in the public review process.

80075-006: The BLM is committed to full implementation of the proposed Wind Energy Development Program and will work within its budget to accomplish this.

80075-007: The BLM has incorporated available data regarding the impacts of existing wind energy development in the preparation of this PEIS and will continue to evaluate information of this nature as it becomes available. An evaluation of the effects the proposed Wind Energy Development Program would have on existing facilities would be interesting but is beyond the scope of the PEIS.

80075-008: Section 6.4.3 acknowledges that wind energy development on BLM-administered lands may require the construction of new transmission lines. Such construction is considered to be a separate but related activity and will require interagency cooperation and multidisciplinary environmental reviews. New text has been added to Section 6.3.4, to describe the existing and proposed rules and regulations governing wind project grid interconnections and transmission system upgrades. These regulations will be applicable to wind energy development projects on BLM-administered lands. Given the need for interagency cooperation regarding transmission line siting and approval, review of this issue is beyond the scope of the PEIS. The designation of new transmission corridors would be evaluated through either regional or local land use planning efforts, with opportunities for full public involvement. The potential impacts of transmission system interconnects or expansions that would be required by an individual wind energy project on BLM-administered lands

will be assessed as part of the site-specific analyses, with input from other federal, state, and local agencies, and interested stakeholders.

80075-009: The projected wind power development presented in Table 5.13-1 is based on results of the WinDS model analyses. These projections do not include existing capacity and are unlikely to correspond directly to specific initiatives underway or being considered. The purpose of the modeling efforts in this PEIS is to provide a general framework of possible development over the next 20 years, in order to assess the potential spatial, environmental, social, and economic impacts of implementing a Wind Energy Development Program for BLM-administered lands. The BLM recognizes that many factors can affect the accuracy of the projections, and, as discussed in Appendix B, a variety of factors will determine actual development levels. However, the MPDS and WinDS models employed in the PEIS are adequate for forecasting potential development levels over such a large geographic area and long, projected time frame. Greater accuracy in these forecasts would not likely result in changes to the requirements of the Wind Energy Development Program; that is, the proposed policies and BMPs would not be changed at this time. Under the proposed program, the BLM will employ adaptive management strategies to the oversight of wind energy development on BLM-administered lands, including any projects that may be proposed in New Mexico. The BLM will monitor the level of wind energy development into the future as well as the effectiveness of its policies and BMPs. If necessary, adjustments to the programmatic requirements will be made.

80075-010: As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, including the development of an appropriate monitoring program, will be conducted for any proposed project on BLM-administered lands. The scope and approach for site-specific 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.

80075-011: The text has been revised in response to your comment.

80075-012: Compliance is the responsibility of the wind energy project proponent. Specific guidance on how to comply with applicable laws and regulations is available through the EPA and state environmental and siting regulatory bodies.

80075-013: The text has been revised in response to your comment.

80075-014: The Utah example has been removed from the text.

Document 80076

WindEISArchives

From: windeiswebmaster@anl.gov
Sent: Friday, December 10, 2004 3:08 PM
To: WindEISArchives
Subject: Wind Energy EIS Comment 80076

BLM_wind_energy_
EIS_comments_8...

Thank you for your comment, Jeff Miller.

The comment tracking number that has been assigned to your comment is 80076. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 10, 2004 03:08:05PM CDT

Wind Energy EIS Draft Comment: 80076

First Name: Jeff
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Last Name: Miller
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Attachment: C:\Documents and Settings\jmiller\My Documents\Altamont eagle kill\Other wind farms\BLM wind energy EIS comments.pdf

Comment Submitted:
CBD comments are attached

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

CENTER FOR BIOLOGICAL DIVERSITY

SAN FRANCISCO BAY AREA OFFICE

Protecting endangered species and wild places through science, policy, education, and environmental law

December 10, 2004

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

These comments are submitted on behalf of the Center for Biological Diversity on the Bureau of Land Management (BLM) Draft Programmatic Environmental Impact Statement (DPEIS) for wind energy development on BLM lands in the Western U. S. CBD is a non-profit organization that seeks to protect and restore the endangered species and wild places of North America and the Pacific through science, policy, education, citizen activism, and environmental law. CBD has been actively involved in attempts to reduce and mitigate for severe avian impacts from wind turbines at the Altamont Pass Wind Resource Area in the eastern San Francisco Bay Area. CBD supports the development of appropriately sited wind energy projects in the U. S. as an alternative to fossil fueled power plants, provided that such projects are operated and designed to prevent or minimize bird mortality.

We recommend that the BLM review the U. S. Fish and Wildlife Service (USFWS) *Interim Voluntary Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines* (available at http://www.fws.gov/r9dhcbfa/wind) for siting, operating, and preventing/minimizing avian and other wildlife impacts at wind energy projects. Before adopting the final EIS, the BLM should adopt uniform guidelines or regulations to assure the prevention or minimization of avian impacts from new wind turbine construction and operation for all wind energy facilities on BLM lands. Examples of other guidelines include the Washington Department of Fish and Wildlife *Guidelines for Wind Energy Projects* (available at http://wdfw.wa.gov/hab/engineer/windpower/index.htm) 80076-1

One of the most glaring defects of the DPEIS is its failure to incorporate the data, results, and conclusions of *Developing Methods to Reduce Bird Mortality in the Altamont Pass Wind Resource Area*, a five-year study published earlier this year and sponsored by the California Energy Commission (CEC) and the National Renewable Energy Laboratory, of avian mortality at Altamont Pass, California ("CEC Study"). The CEC Study is available at http://www.energy.ca.gov/pier/final_project_reports/500-04-052.html. 80076-2

Tucson • Phoenix • Idyllwild • San Diego • San Francisco • Portland • Silver City • Denver

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The DPEIS should be revised to incorporate the CEC Study. In particular, the DPEIS's estimate of 488 annual raptor deaths nationwide (DPEIS at 5-57) is contradicted by the CEC Study, which found 881 to 1300 annual raptor deaths at Altamont Pass alone (CEC Study at 3). The data by Thelander (the CEC Study co-author) at DPEIS 5-63 are too low and need to be revised in light of his final results in the CEC Study. The data in Table 5.9.3-3 also need to be revised in light of the CEC Study. The DPEIS also lists Golden Eagle fatality rates at Altamont as 1 per 200 turbines (DPEIS at 5-64). The CEC Study, however, reports the annual Golden Eagle mortalities at Altamont as between 75 and 116 per year, or between 1 per 47 turbines and 1 per 72 turbines (based on 5400 turbines total at Altamont).

Moreover, the fact that the CEC Study shows that previous estimates of raptor deaths at Altamont, the most intensively studied wind farm in the world, were low by a factor of 2 to 3, suggests that the DPEIS's estimate of 20 raptor deaths nationwide at facilities other than Altamont, most of which have never been studied, is unreliable.

The DPEIS throughout uses mortality per turbine as the metric for measuring mortality. As the CEC study explains, mortality per megawatt is a much more useful and significant metric than mortality per turbine (CEC Study at Appendix A). The DPEIS should be revised to state mortality in terms of mortality per megawatt.

In addition, there is significant ongoing work at the Lawrence Livermore National Laboratory developing three-dimensional computer modeling of avian-wind turbine interactions. One of the scientists involved in this study is Shawn Smallwood, one of the co-authors of the CEC study. The DPEIS should be revised to incorporate the results of this work. 80076-2 (cont.)

The DPEIS relies on some studies that rely on outdated information (for example, Erickson et al. 2001, 2002) and data that have been determined by the CEC to not be scientifically valid (for example, mortality estimates by Curry and Kerlinger 2004). The DPEIS also downplays the risk of avian electrocutions although electrocutions are a significant mortality factor at other wind energy facilities.

The DPEIS also erroneously asserts that no American Kestrels have been killed by new wind turbines apart from Altamont, Tehachapi, San Gorgonio, and Foote Creek Rim (DPEIS at 5-63). The High Winds facility is a facility of 90 new turbines in Solano County, CA that went online starting in August 2003 and killed 32 kestrels in the first 11 months of operation (data attached).

The DPEIS does not adequately address avian impacts. We recommend that BLM review the American Bird Conservancy's *Wind Energy Policy* (available at http://www.abcbirds.org/policy/windenergy.htm) and the CEC study and include their recommendations for reducing and mitigating avian impacts before adopting the final EIS.

Wind energy production may affect birds through mortality from collisions with the turbine blades, towers, power lines, or with other related structures; electrocution on power lines; avoidance of wind turbines and the habitat surrounding them; and direct habitat impacts from the footprint of turbines, roads, power lines, and auxiliary buildings. The DPEIS does not adequately address these concerns. A more thorough review of recent data and literature on avian impacts from wind turbines should be conducted by BLM. 80076-2 (cont.)

CBD supports the American Bird Conservancy (ABC) recommendation that the BLM adopt the proposed action in the DPEIS which would implement a Wind Energy Development Program, establish Best Management Practices for wind energy authorizations, and amend a number of BLM land use plans **only if** it adopts and addresses the recommendations to reduce the risk of harm to avian species proposed by the ABC in their comment letter to the BLM on the DPEIS dated December 7, 2004.

These recommendations include:

- adopting the USFWS guidelines for siting, operating, and preventing/minimizing avian and other wildlife impacts;
- conducting pre-construction bird surveys and requiring siting review; 80076-3
- requiring minimal lighting on structures;
- prohibiting the use of guy wires and lattice supports;
- requiring that wind turbine power lines be underground and that power lines comply with APLIC standards to prevent avian electrocutions and collisions;
- requiring habitat review and mitigation; and
- requiring scientifically valid sampling for avian and bat mortality.

The CBD incorporates these comments of the ABC by reference. If the BLM does not adopt the recommendations to reduce the risk of harm to avian species proposed by the ABC, we recommend that alternative #3 be adopted, a limited wind energy development alternative, which would allow wind energy development only in limited, selected locations.

Sincerely,

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Document 80077 (attachment to Document 80076)

WindEISArchives

From: windeiswebmaster@anl.gov
Sent: Friday, December 10, 2004 3:11 PM
To: WindEISArchives
Subject: Wind Energy EIS Comment 80077

High_Winds_data_80077.pdf (472...

Thank you for your comment, Jeff Miller.

The comment tracking number that has been assigned to your comment is 80077. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 10, 2004 03:11:10PM CDT

Wind Energy EIS Draft Comment: 80077

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Attachment: C:\Documents and Settings\jmiller\My Documents\Altamont eagle kill\Other wind farms\High Winds data.pdf

Comment Submitted:
addendum to CBD comments - data on High Winds facility kestrel mortality

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

Number of Incidents per Species ***Montezuma Hills WRA***

High Winds Company

August 4, 2003 - June 28, 2004 Cumulative -

Species Name	Aug - Dec 2003 81 wind turbines	Jan - Jun 2004 90 wind turbines	Grand Total	
Birds (99)				
American Kestrel	23	9	32	
Red-tailed Hawk	8	2	10	3 incidental**
White-tailed Kite		2	2	1 incidental
Ferruginous Hawk		1	1	(2)
Golden Eagle		1	1	
Turkey Vulture	1		1	
Ring-necked Pheasant		3	3	
Common Moorhen	1		1	1 incidental
American Coot		1	1	
Virginia Rail		1	1	
Sora	1		1	
Mourning Dove		2	2	
Barn Owl*		1	1	
White-throated Swift	1		1	1 incidental
Northern Flicker	1		1	
Western Wood-Pewee		1	1	
Unidentified *Empidonax* Flycatcher	1		1	
Warbling Vireo		1	1	
Horned Lark	2	8	10	
Ruby-crowned Kinglet	2		2	
European Starling	1	2	3	
Orange-crowned Warbler		1	1	
Yellow Warbler		1	1	
Townsend's Warbler	1	1	2	
Common Yellowthroat	1	1	2	
Unidentified Warbler	1	1	2	1 incidental
Lincoln Sparrow	1		1	
Western Meadowlark	2		2	
Red-winged Blackbird		2	2	
Brewer's Blackbird		2	2	
Unidentified Blackbird	1		1	
Unidentified Bird	2	4	6	
Bats (71)				
Hoary Bat	39	7	46	
Mexican Free-tailed Bat	17	5	22	1 incidental
Western Red Bat	3		3	
Grand Total	110	60	170	

* Found on "SITE" and was not associated with a wind turbine tower

** # incidental = # of individuals found incidentally and not during standardized surveys, included in the Grand Total for that species

Fatalities at High Winds, Solano County Wind Resource Area August 4, 2003 through June 28, 2004

ID#	Date Reported	Structure	Species Name	Data Type	Distance 1(m)	Bird/Bat	Species Category
H04-050	06/02/04	6	American Kestrel	Standardized	38	A	Raptor
H03-001	08/04/03	7	American Kestrel	Standardized	21	A	Raptor
H03-061	10/12/03	7	American Kestrel	Standardized	26	A	Raptor
H03-096	11/18/03	7	American Kestrel	Incidental	17	A	Raptor
H03-088	11/13/03	9	American Kestrel	Standardized	6	A	Raptor
H03-089	11/13/03	9	American Kestrel	Standardized	39	A	Raptor
H03-062	10/12/03	11	American Kestrel	Standardized	65	A	Raptor
H04-009	02/11/04	14	American Kestrel	Standardized	40	A	Raptor
H03-005	08/17/03	15	American Kestrel	Standardized	45	A	Raptor
H03-077	10/30/03	18	American Kestrel	Standardized	59	A	Raptor
H03-103	12/15/03	23	American Kestrel	Standardized	58	A	Raptor
H03-109	12/30/03	28	American Kestrel	Standardized	33	A	Raptor
H03-079	11/02/03	30	American Kestrel	Standardized	17	A	Raptor
H03-080	11/02/03	30	American Kestrel	Standardized	35	A	Raptor
H04-052	06/07/04	30	American Kestrel	Standardized	16	A	Raptor
H03-002	08/07/03	31	American Kestrel	Standardized	55	A	Raptor
H04-002	01/13/04	31	American Kestrel	Standardized	31	A	Raptor
H03-091	11/16/03	33	American Kestrel	Standardized	54	A	Raptor
H04-040	05/07/04	33	American Kestrel	Standardized	27	A	Raptor
H04-006	01/26/04	34	American Kestrel	Standardized	34	A	Raptor
H03-068	10/17/03	35	American Kestrel	Standardized	17	A	Raptor
H03-092	11/16/03	44	American Kestrel	Standardized	54	A	Raptor
H03-098	12/03/03	44	American Kestrel	Standardized	36	A	Raptor
H03-105	12/17/03	44	American Kestrel	Standardized	10	A	Raptor
H04-001	01/08/04	46	American Kestrel	Incidental	9	A	Raptor
H04-007	01/28/04	53	American Kestrel	Incidental	3	A	Raptor
H03-084	11/04/03	54	American Kestrel	Standardized	26	A	Raptor
H04-003	01/16/04	55	American Kestrel	Standardized	35	A	Raptor
H03-086	11/05/03	60	American Kestrel	Standardized	35	A	Raptor
H03-094	11/18/03	61	American Kestrel	Standardized	31	A	Raptor
H03-099	12/04/03	61	American Kestrel	Standardized	54	A	Raptor
H03-100	12/04/03	63	American Kestrel	Standardized	23	A	Raptor
H04-045	05/25/04	72	Ferruginous Hawk	Standardized	49	A	Raptor
H04-060	06/28/04	72	Golden Eagle	Standardized	20	A	Raptor
H03-101	12/08/03	1	Red-tailed Hawk	Standardized	39	A	Raptor
H03-102	12/08/03	2	Red-tailed Hawk	Standardized	3	A	Raptor
H03-063	10/15/03	10	Red-tailed Hawk	Incidental	55	A	Raptor
H03-108	12/30/03	22	Red-tailed Hawk	Standardized	21	A	Raptor
H03-104	12/15/03	26	Red-tailed Hawk	Standardized	21	A	Raptor
H03-081	11/02/03	31	Red-tailed Hawk	Standardized	26	A	Raptor
H03-082	11/02/03	39	Red-tailed Hawk	Standardized	43	A	Raptor
H03-093	11/17/03	55	Red-tailed Hawk	Standardized	31	A	Raptor
H04-028	04/04/04	76	Red-tailed Hawk	Standardized	38	A	Raptor

Fatalities at High Winds, Solano County Wind Resource Area August 4, 2003 through June 28, 2004

ID#	Date Reported	Structure	Species Name	Data Type	Distance 1(m)	Bird/Bat	Species Category
H04-011	02/13/04	83	Red-tailed Hawk	Standardized	38	A	Raptor
H03-048	10/05/03	30	Turkey Vulture	Standardized	84	A	Raptor
H04-022	03/17/04	55	White-tailed Kite	Standardized	63	A	Raptor
H04-012	02/20/04	59	White-tailed Kite	Standardized	78	A	Raptor
H04-021	03/12/04	Site	Barn Owl	Incidental		A	Owl
H04-005	01/21/04	16	American Coot	Standardized	35	A	Non-Raptor
H04-017	03/07/04	15	Brewer's Blackbird	Standardized	59	A	Non-Raptor
H04-013	02/28/04	43	Brewer's Blackbird	Standardized	64	A	Non-Raptor
H03-028	09/19/03	21	Common Moorhen	Standardized	73	A	Non-Raptor
H04-051	06/03/04	10	Common Yellowthroat	Incidental	112	A	Non-Raptor
H03-056	10/10/03	63	Common Yellowthroat	Standardized	66	A	Non-Raptor
H03-097	11/25/03	19	European Starling	Standardized	18	A	Non-Raptor
H04-049	05/27/04	27	European Starling	Standardized	29	A	Non-Raptor
H04-004	01/18/04	62	European Starling	Standardized	17	A	Non-Raptor
H04-055	06/16/04	3	Horned Lark	Standardized	15	A	Non-Raptor
H04-034	04/19/04	10	Horned Lark	Standardized	43	A	Non-Raptor
H04-039	05/06/04	17	Horned Lark	Standardized	30	A	Non-Raptor
H04-024	03/25/04	20	Horned Lark	Standardized	6	A	Non-Raptor
H04-029	04/07/04	24	Horned Lark	Standardized	12	A	Non-Raptor
H03-110	12/30/03	32	Horned Lark	Standardized	34	A	Non-Raptor
H04-037	04/26/04	38	Horned Lark	Standardized	1	A	Non-Raptor
H03-106	12/17/03	50	Horned Lark	Standardized	10	A	Non-Raptor
H04-041	05/10/04	84	Horned Lark	Standardized	31	A	Non-Raptor
H04-042	05/10/04	86	Horned Lark	Standardized	15	A	Non-Raptor
H03-046	10/05/03	22	Lincoln Sparrow	Standardized	67	A	Non-Raptor
H04-033	04/18/04	5	Mourning Dove	Standardized	3	A	Non-Raptor
H04-044	05/11/04	54	Mourning Dove	Standardized	72	A	Non-Raptor
H03-059	10/12/03	2	Northern Flicker	Standardized	36	A	Non-Raptor
H04-020	03/12/04	43	Orange-crowned Warbler	Standardized	52	A	Non-Raptor
H04-038	05/06/04	2	Red-winged Blackbird	Standardized	33	A	Non-Raptor
H04-053	06/10/04	49	Red-winged Blackbird	Standardized	70	A	Non-Raptor
H04-031	04/10/04	1	Ring-necked Pheasant	Incidental	6	A	Non-Raptor
H04-025	03/28/04	25	Ring-necked Pheasant	Standardized	48	A	Non-Raptor
H04-030	04/07/04	37	Ring-necked Pheasant	Standardized	3	A	Non-Raptor
H03-050	10/09/03	36	Ruby-crowned Kinglet	Standardized	75	A	Non-Raptor
H03-055	10/10/03	57	Ruby-crowned Kinglet	Standardized	36	A	Non-Raptor
H03-041	09/26/03	60	Sora	Standardized	41	A	Non-Raptor
H03-033	09/23/03	35	Townsend's Warbler	Standardized	58	A	Non-Raptor
H04-043	05/11/04	51	Townsend's Warbler	Standardized	7	A	Non-Raptor
H04-010	02/11/04	25	Unidentified Bird	Standardized	49	A	Non-Raptor
H03-107	12/21/03	64	Unidentified Blackbird	Standardized	68	A	Non-Raptor

Fatalities at High Winds, Solano County Wind Resource Area August 4, 2003 through June 28, 2004

ID#	Date Reported	Structure	Species Name	Data Type	Distance 1(m)	Bird/Bat	Species Category
H03-008	09/03/03	19	Unidentified *Empidonax* Flycatcher	Standardized	65	A	Non-Raptor
H04-014	03/05/04	8	Unidentified Passerine	Standardized	63	A	Non-Raptor
H03-029	09/19/03	23	Unidentified Passerine	Standardized	59	A	Non-Raptor
H03-052	10/09/03	38	Unidentified Passerine	Standardized	54	A	Non-Raptor
H04-054	06/10/04	55	Unidentified Passerine	Standardized	42	A	Non-Raptor
H04-059	06/22/04	87	Unidentified Passerine	Standardized	25	A	Non-Raptor
H04-056	06/17/04	14	Unidentified Warbler	Standardized	31	A	Non-Raptor
H03-035	09/26/03	51	Unidentified Warbler	Standardized	59	A	Non-Raptor
H04-058	06/22/04	86	Virginia Rail	Standardized	63	A	Non-Raptor
H04-047	05/27/04	20	Warbling Vireo	Standardized	70	A	Non-Raptor
H03-004	08/17/03	13	Western Meadowlark	Standardized	49	A	Non-Raptor
H03-012	09/07/03	35	Western Meadowlark	Standardized	40	A	Non-Raptor
H04-046	05/27/04	20	Western Wood-Pewee	Standardized	41	A	Non-Raptor
H03-003	08/17/03	44	White-throated Swift	Standardized	33	A	Non-Raptor
H04-048	05/27/04	21	Yellow Warbler	Standardized	57	A	Non-Raptor
H03-026	09/16/03	4	Hoary Bat	Standardized	14	C	Bat
H03-087	11/13/03	4	Hoary Bat	Standardized	5	C	Bat
H03-060	10/12/03	7	Hoary Bat	Standardized	34	C	Bat
H03-007	09/03/03	9	Hoary Bat	Standardized	76	C	Bat
H04-016	03/05/04	10	Hoary Bat	Standardized	17	C	Bat
H03-027	09/19/03	15	Hoary Bat	Standardized	37	C	Bat
H04-035	04/19/04	18	Hoary Bat	Standardized	30	C	Bat
H03-078	10/30/03	19	Hoary Bat	Standardized	13	C	Bat
H03-009	09/03/03	21	Hoary Bat	Standardized	59	C	Bat
H03-065	10/17/03	21	Hoary Bat	Standardized	18	C	Bat
H04-036	04/19/04	21	Hoary Bat	Standardized	13	C	Bat
H03-010	09/03/03	24	Hoary Bat	Standardized	35	C	Bat
H04-057	06/17/04	26	Hoary Bat	Standardized	60	A	Bat
H03-049	10/05/03	31	Hoary Bat	Standardized	15	C	Bat
H03-031	09/23/03	33	Hoary Bat	Standardized	17	C	Bat
H03-011	09/03/03	34	Hoary Bat	Standardized	49	C	Bat
H03-032	09/23/03	34	Hoary Bat	Standardized	63	C	Bat
H03-076	10/28/03	37	Hoary Bat	Incidental	11	C	Bat
H03-013	09/07/03	39	Hoary Bat	Standardized	59	C	Bat
H03-014	09/07/03	41	Hoary Bat	Standardized	46	C	Bat
H03-015	09/07/03	44	Hoary Bat	Standardized	40	C	Bat
H03-069	10/18/03	44	Hoary Bat	Standardized	18	C	Bat
H03-016	09/07/03	46	Hoary Bat	Standardized	44	C	Bat
H03-070	10/18/03	46	Hoary Bat	Standardized	35	C	Bat
H03-034	09/23/03	47	Hoary Bat	Standardized	19	C	Bat
H03-017	09/07/03	48	Hoary Bat	Standardized	39	C	Bat
H03-053	10/09/03	50	Hoary Bat	Standardized	35	C	Bat
H03-054	10/09/03	50	Hoary Bat	Standardized	23	C	Bat
H03-036	09/26/03	51	Hoary Bat	Standardized	58	C	Bat

Fatalities at High Winds, Solano County Wind Resource Area August 4, 2003 through June 28, 2004

ID#	Date Reported	Structure	Species Name	Data Type	Distance 1(m)	Bird/Bat	Species Category
H03-073	10/18/03	55	Hoary Bat	Standardized	45	C	Bat
H03-038	09/26/03	57	Hoary Bat	Standardized	26	C	Bat
H03-018	09/11/03	58	Hoary Bat	Standardized	62	C	Bat
H03-040	09/26/03	58	Hoary Bat	Standardized	26	C	Bat
H03-042	09/27/03	61	Hoary Bat	Standardized	31	C	Bat
H03-095	11/18/03	62	Hoary Bat	Standardized	53	C	Bat
H03-021	09/11/03	63	Hoary Bat	Standardized	55	C	Bat
H03-057	10/10/03	63	Hoary Bat	Standardized	45	C	Bat
H03-074	10/21/03	63	Hoary Bat	Standardized	63	C	Bat
H03-043	09/27/03	65	Hoary Bat	Standardized	41	C	Bat
H03-058	10/10/03	67	Hoary Bat	Standardized	17	C	Bat
H03-075	10/21/03	67	Hoary Bat	Standardized	44	C	Bat
H03-025	09/16/03	78	Hoary Bat	Standardized	6	C	Bat
H03-006	08/26/03	79	Hoary Bat	Standardized	18	C	Bat
H04-019	03/12/04	86	Hoary Bat	Standardized	7	C	Bat
H04-032	04/12/04	86	Hoary Bat	Standardized	26	C	Bat
H04-027	04/04/04	88	Hoary Bat	Standardized	65	C	Bat
H04-008	02/08/04	3	Mexican Free-tailed Bat	Standardized	17	C	Bat
H04-015	03/05/04	9	Mexican Free-tailed Bat	Standardized	27	C	Bat
H03-064	10/17/03	20	Mexican Free-tailed Bat	Standardized	12	C	Bat
H03-047	10/05/03	24	Mexican Free-tailed Bat	Standardized	0	C	Bat
H03-067	10/17/03	31	Mexican Free-tailed Bat	Standardized	30	C	Bat
H03-090	11/16/03	31	Mexican Free-tailed Bat	Standardized	22	C	Bat
H03-030	09/23/03	33	Mexican Free-tailed Bat	Standardized	20	C	Bat
H03-072	10/18/03	51	Mexican Free-tailed Bat	Standardized	18	C	Bat
H03-083	11/04/03	51	Mexican Free-tailed Bat	Standardized	39	C	Bat
H03-037	09/26/03	56	Mexican Free-tailed Bat	Standardized	43	C	Bat
H03-085	11/04/03	57	Mexican Free-tailed Bat	Standardized	30	C	Bat
H04-023	03/17/04	57	Mexican Free-tailed Bat	Standardized	12	C	Bat
H03-039	09/26/03	58	Mexican Free-tailed Bat	Standardized	28	C	Bat
H03-019	09/11/03	59	Mexican Free-tailed Bat	Standardized	28	C	Bat
H03-020	09/11/03	60	Mexican Free-tailed Bat	Standardized	20	C	Bat
H03-022	09/11/03	64	Mexican Free-tailed Bat	Standardized	20	C	Bat
H03-023	09/11/03	64	Mexican Free-tailed Bat	Standardized	48	C	Bat
H03-024	09/11/03	67	Mexican Free-tailed Bat	Standardized	35	C	Bat
H03-044	09/28/03	67	Mexican Free-tailed Bat	Standardized	12	C	Bat
H03-045	09/28/03	70	Mexican Free-tailed Bat	Standardized	0	C	Bat
H04-018	03/12/04	85	Mexican Free-tailed Bat	Standardized	5	C	Bat
H04-026	03/29/04	87	Mexican Free-tailed Bat	Standardized	14	C	Bat
H03-066	10/17/03	23	Western Red Bat	Standardized	44	C	Bat
H03-051	10/09/03	37	Western Red Bat	Standardized	43	C	Bat
H03-071	10/18/03	50	Western Red Bat	Standardized	40	C	Bat

Responses for Document 80076

80076-001: The Wind Energy Development Program proposed policies and BMPs identified in the PEIS were developed following review of the USFWS interim voluntary guidance and other similar guidelines. The policies and BMPs identify those issues that need to be addressed for each individual wind energy project and specify that site-specific analyses will be conducted for each project. The scope and approach for these analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. These policies and BMPs have been reworded in the Final PEIS to make them required elements of any wind energy development activity on BLM-administered land.

The BLM and USFWS share a common objective in terms of minimizing potential impacts to wildlife from wind energy development activities. Many of the USFWS voluntary guidance recommendations are imbedded within the BLM's proposed policies and BMPs, reflecting consistent objectives and parallel approaches. However, because the USFWS guidance is interim and voluntary, it is inappropriate to adopt it wholly in the PEIS or in the proposed Wind Energy Development Program.

80076-002: The document has been revised to include the CEC study, which was released too late in the Draft PEIS preparation process to be incorporated. In addition, the text related to the 488 raptor deaths and that stating that there have not been any American kestrel mortalities has been deleted. The Thelander discussion on page 5- 63 has been revised to indicate that the mortality estimate is for a specific time period, and the text on page 5-64 discussing golden eagle mortality at the Altamont Pass WRA has been revised to incorporate the results in the CEC study.

Because most published mortality estimates are reported on a per turbine basis, no change has been made to the presentation of mortality metrics in the PEIS.

Because the avian-wind turbine model discussed in the comment is in development, its inclusion in the document would not be appropriate. As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, which may include the modeling of avian-turbine interactions, will be conducted for any wind energy project proposed for BLM-administered lands. The scope and approach for site- specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. The identification of site-specific analyses and their methods are beyond the scope of the PEIS.

The PEIS does not downplay the risk of avian electrocutions, which is discussed elsewhere in the document in Section 5.9.3.2.1.

80076-003: Most of the recommendations suggested in this comment have already been incorporated into the proposed Wind Energy Development Program as discussed in the PEIS. Detailed discussions of each recommendation are provided in response to the ABC comment document (# 80050).

Document 80078

WindEISArchives

From: windeiswebmaster@anl.gov
Sent: Friday, December 10, 2004 3:14 PM
To: WindEISArchives
Subject: Wind Energy EIS Comment 80078

RENEWABLE_ENE
Y_ON_PUBLIC_LA

Thank you for your comment, Ivan Weber.

The comment tracking number that has been assigned to your comment is 80078. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 10, 2004 03:13:50PM CDT

Wind Energy EIS Draft Comment: 80078

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Comment Submitted:
Thank you for considering the long-overdue development of renewable energy on public lands under BLM administration. Please consider the following comments, submitted without a great deal of time to review the particulars of the PEIS, but with a great deal of background and depth of commitment to renewables, of which wind generation is but one of several that are feasible, as urgent measures to curb global climate change and regional impacts of fossil fuel combustion. My comments are, as a consequence, 'programmatic,' themselves.

1. Wind resources are spottily dramatic throughout the American West, but are probably of less significance in their potential productivity than solar resources, especially on BLM lands.
2. Synergistic renewable energy developments should be kept in mind, as where solar, geothermal or bioenergy development on nearby public or private lands may 'push over the feasibility threshold' a potential wind or solar energy project that might not meet criteria for development otherwise. There may be locations on BLM lands that could offer attractive renewables development potential PACKAGES if wind AND solar are considered in combination. Wind will typically 'want' to happen near ridges or in east-west valleys, and solar on flat valley floors or on south-facing slopes --- enormous candidate areas come to mind, surely comprising tens of millions of acres in Western states. Together, they are, or soon will be, feasible on a scale that will surprise nearly everyone. An example of a superb solar development site is on the lands surrounding and south of Glen Canyon Dam, directly west of Page, AZ. This area could produce more solar energy than the Dam hydroelectric generators now do, and do it functionally forever. Optically-concentrated solar PV could multiply that productivity several times, and continue to add multiples as technology improves. This is a window into true "energy independence." Please don't be too narrow in the thinking that goes into a given site evaluation. Please do not restrict the PEIS analysis to wind, especially not in world-class solar country. (The West is intermittent wind country, unlike the Midwest.) 4. It is critical to keep in mind that

80078-1

solar-PV power is 'peak,' by virtue of its nearly exact match to the power demand daily cycle. This makes solar energy much, much more valuable than 'as-happens' wind resource occurrence. Sometimes wind is 'peak,' but generally not; therefore it is 'base' power. 80078-1 (cont.)

5. Development can 'leap-frog' to extend feasibility relative to transmission. Both wind and solar are extremely quick to engineer and to put into productive operation, where reasonably near transmission facilities. Once built, the farthest extremes of these 'power farms' present the nearest point for the next farm beyond. Feasibility may thus be extended into highly productive areas by strategic construction of power transmission to gather harvested power.

6. The process proposed by the PEIS is acceptable, on the face of it, but can be improved by some 'systems' integration into models of rural economic development and 'distributed power' generation and consumption. These alterations may lead, in many areas, to identification of feasible wind generation locations that are not within the proximity parameters of BLM's analysis, thereby excluding them from consideration, when in fact they could provide power to communities and facilities that are too far from major transmission lines to have been considered by the PEIS process. 80078-2

7. Transmission lines used as viable conveyances of wind power should, as a consequence of the preceding, be evaluated based on their potential for contributions based on this distributed power model.

8. Wind classifications shown on different maps vary for given locations. These need to be reconciled. For example, the map for Utah wind potential on your website (a wonderful resource, by the way) shows the Oquirrh Mountains, near Salt Lake City, to be of a differenct wind class from the map one gets from the Utah Energy Office website. These need to be reconciled, if necessary by additional resource assessment. 80078-3

9. The Oquirrh Mountains serve as a great example of synergistic opportunities, as well. Kennecott Utah Copper has reportedly been evaluating wind development potential on its properties, primarily (but not entirely) on the east flank of the range. Most of the west flank is owned by BLM, probably encompassing lands where orogenic uplift winds would furnish moderately attractive wind development sites, especially near the ridge above an area previously proposed as a Wilderness Study Area (WSA). TOGETHER, the lands of the Oquirrh Mountains surely would be far more attractive than either holding would be, considered separately. This is especially true considering the extensive transmission system on Kennecott's properties. If one also considers extensive solar development potential, then factors of magnitude may be applied, probably enabling the Oquirrh Mountains to produce more than 2,000 or even 3,000 MW. 80078-4

10. Wilderness areas and WSAs are to be avoided, categorically, EXCEPT where energy generation potential is at the very highest. This reviewer believes that global warming is the greatest single threat to ecosystems of all types, including human, and particularly to high-country western forest and seasonally wet meadow habitats. Stating this as clearly as possible: Renewable energy is the top priority of our time, as well as avoidance of further carbon-based energy dependence. 80078-5

11. Human aesthetics must, regretably, be suppressed in importance as global climate change becomes more and more clearly challenging. Still, avoiding placement of wind generators and solar panels in the most critical viewsheds (e.g., views from Highway 12 over Boulder Mountain) --- keeping in mind that tourism is currently our largest industry --- is obviously important. In areas near towns and cities, however, which are the major power demand centers, renewable energy should be more assertively developed (which also holds true for State School and Institutional Trust Lands). 80078-6

12. Avian mortality is likely not to be insurmountable as a problem except where there are seasonal raptor migrations, as in Utah "West Desert" ranges, possibly even some spots in the Oquirrhs. Choice of generator can alleviate most of these concerns, opting for very large/slow blade speed units, and facing the inevitability of their being visible from the surrounding urban areas. 80076-7

13. Noise should not be a concern in most areas due to remoteness of most candidate locations. There may be valley locations, such as along the Fremont River in Wayne County, that have scattered settlements where generators would be placed. Again, choice of generator models and types may make a difference. 80078-8

14. People who live nearby must be thoroughly educated in the potential impacts of climate change, following up on the report, "Preparing for a Changing Climate: Rocky Mountains/Great Basin Region," produced by USU. The choice must not be made prettier than it actually is, either for the presence of renewable energy generators, on the one hand, or, on the other, for the potential impacts of a warming climate, with wildfires, smothering smoke, loss of snowpack for water storage, increased flashfloods and mudslides, loss of wildlife habitat, and so forth. Tell it like it's likely to be. 80078-9

15. On the other hand, local preferences, alone, must not be allowed to dictate what is done or to block an important project (50 MW or more).

Summary:
I personally think that productive wind generators, PV panels, Stirling Dishes, solar-thermal collector arrays, heliostats, and so forth, are fascinating and downright beautiful insofar as they offer a path to staving off climate change, regional haze, forest macronutrient overloading, air contaminant transport, and acid deposition impacts. Invest now! We've diddled around far, far too long on this matter to justify further delay by allusions to mythical 'market' forces. Energy and global/regional climate change form a realm too heavily skewed by the politics of carbon fuels to allow 'market' evaluations to determine much of anything. In fact, there's just about nothing 'free' about this alleged 'free market' of ours. What's a stable climate worth? Insurance companies are getting interested in this question. So should timber companies, states dependent on tourism, cities and towns dependent on air relatively free from wildfire smoke, and urban areas that will experience profound increases in summer ozone (smog) formation due to a greater number of hours above ozone synthesis temperature thresholds: all should be interested beyond interested: They should be clamoring for BLM renewable energy development, now. Not someday in the future. Now.

80078-10

Let's do it! If you don't have the appropriation from Congress for at least 500 MW of wind generation investment by the end of 2005, then BLM and Congress will not have done their collective jobs.

Attached is an article I wrote for the current issue of the Utah Sierra Club newsletter, the Sierran, urging participation in the PEIS review process and trying to stimulate discussion among environmental advocates of this critical issue. I do not speak for the Sierra Club, and I'm sure you'll encounter people with reservations about the process, as much out of distrust for BLM and Federal and State agencies as out of suspicion of renewable energy technologies. This is a critical nexus for trust. Trust can and must be earned by pro-active analysis, planning, investment and development for the public good, fully mindful of the variables inherent in this game. It is a game that must be played, however pejorative some may regard the gamelike attributes of this program. The PEIS is on the right track and, if it neither suspends NEPA nor abuses its privilege, it stands to do an enormous service not just for communities, regions, and the nation, but for the planet as a whole. Please be in touch if we may offer assistance.

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

RENEWABLE ENERGY ON PUBLIC LANDS? BLM wind energy 'PEIS' asks for public comment on whether, where, where not and other questions.

This is a question we've neglected. We need to talk.

The true cost of carbon: We've paid the premium for convenient hydrocarbon energy, all along, in human health impacts, urban air quality degradation, regional haze, acid rain, direct fossil fuel extraction impacts, roads where no roads would otherwise be, boom-and-bust local economies --- on and on.. Under the second Bush administration, oil has even taken us to war in the Middle East, likely costing US taxpayers hundreds of billions of dollars over the decade since the 2003 invasion of Iraq, and more than a thousand US lives. Stimulating almost universal fears of 'terrorism' that one could argue are side-effects of oil dependence, America's carbon empire threatens to spread far and wide, employing 'preemptive war' doctrines and other policies invented and invoked by the current Oil Patch Presidency to justify whatever seems expedient for the carbon-glutonous mega-corporations that prop up the Republican Congress and the Presidency. When public funds made precious by economic slowdown, compounded by some of the most devastatingly regressive economic policies of our times, are diverted to the machinery of war over oil on the far side of the world, the true cost of our carbon economy begins to emerge for even the most myopic of our citizenry, if not our leadership. Mix $50/barrel crude, $2+/gallon gasoline and diesel for $2.10/gallon and rising, nationally, and the critical public eye turns to our energy paradigm again, for the first time since the mid-'70s. Money talks.

Global climate change screams: Despite the Bush administration's refusal of the Kyoto Protocol, worldwide agreement may be given binding force if Russia endorses the pact, as now appears likely. Science supporting global warming veracity has snowballed as glaciers and ice sheets have melted, and a landmark analysis of climate change implications for the Rocky Mountain/Great Basin region has warned of dire consequences for our own region, especially for water resources and water as a 'carrying capacity' constraint. Loss of snowpack-as-storage, increased wildfires, forest and range plant community shifts toward Southwestern floral assemblages, rapid onset of desert conditions

where semi-desert has historically prevailed, mudslides, flashfloods, and possible Great Salt Lake level fluctuations (both down and up) beyond the range of historical variability: These and other effects may imply future costs of carbon dependent economies far beyond our ability to "get used to it," in the words of President Dubya. But money talks. Soaring oil prices may, at long last, stimulate investment in energy conservation, efficiency of equipment, buildings and industrial processes, and even in such juggernaut-like destroyers as industrial agriculture's use of petroleum-derived chemicals.

Government leadership? Ain't that one uh them 'oxymormons'? It's always hard to say what's driving the Bureau of Land Management. Still, BLM has recently posted a very elaborate and extensive "programmatic environmental impact statement" (PEIS) for wind energy development on BLM's 260 million+ acres of public lands. This may be the slipstream of a critical discussion at the 2002 Western Governors' Association conference in Salt Lake City. Using GIS mapping , BLM applied basic site-appropriateness parameters to propose wind energy development locations for further screening. Combined with electrical power grid information, a spotty pattern was identified through areas with both sufficient wind and sufficient proximity to the power grid (25 miles each way, as a general rule). Of Utah's 23 million acres of BLM lands, only a very small percentage was identified as potentially worth further study --- still a very significant potential resource. Although the environmental community was underrepresented at the WGA conference, there was constructive discussion with BLM's Kathleen Clarke. One of a series of scoping meeting s was also held in SLC last November.

The Utah School and Institutional Trust Lands Administration (SITLA) was interested, and has since acted on that interest to explore wind energy as a sustainable revenue stream for schools --- a lesson worth teaching to our children. Just as federal government agencies have quietly led the charge toward highly energy efficient buildings, it seems appropriate that federal agencies take the lead toward a renewables-based economic future.

No more 'bird-o-matic': Obviously, screening criteria beyond wind and transmission feasibility need to be applied, with caution. The PEIS website summarizes those considerations very well. Wind generator technology has improved very dramatically in the past 20 years, becoming more dependable, more efficient, safer, less vulnerable to mechanical failure, less costly, less noisy and less prone to cause avian mortality. Far larger than in the past, generators are higher and use blades that are enormously longer. Geared down by many factors, blades move comparatively slowly, greatly reducing bird kills. By reducing or eliminating perching and nesting opportunities, wind generator structures further cut avian mortality by reducing the attraction for raptors to be in harm's way. Still, it may not make sense to place wind generators in critical migratory bird pathways, especially areas seasonally frequented by raptors. This realization should be balanced by visualization of a landscape altered by climate change impacts if we fail to shift away from carbon energy.

Eyesore, or delight? In view areas, wind generators may not be appropriate, though many of us argue that they beat looking at smokestacks. The same is true of solar-photovoltaic arrays, such as those at Dangling Rope Marina or Rainbow Bridges National Park; solar-thermal installations like the SEGS projects in southern California; 'Dish Stirling' parabolic trough concentrators; or other developing forms of solar energy. For example, to some, there may be beauty in the prospect of seeing the lands around Page, Arizona's Glen Canyon Dam covered with thousands of acres of solar PV panels, IF this is conducive to dam decommissioning AND the consequent "green" energy can replace all the dam's power output in daylight hours, producing valuable 'peak' energy in the bargain (which solar PV does).

What's possible that is also sustainable? Are there not, among Utah's Colorado Plateau and Great Basin canyons, plateaus, valleys and ridges, *some certain, identifiable* BLM lands on which 1) wind resources are adequate AND 2) transmission grids are nearby AND 3) bird mortality for a given generator technology is low AND 4) viewsheds are not unacceptably impaired AND 5) generator noise not likely to be excessive? Are we at the point at which we are sufficiently concerned about

global climate change, urban air quality, regional haze, regional acid deposition, and other consequences of burning fossil fuels to need to think this through, talk this through? It seems that way, doesn't it --- especially when other renewable energy forms are also considered against the burgeoning evidence of fossil fuels' disastrous portents?

Wind PEIS comments: Please review the programmatic EIS, most easily accessed at the following URL: http://www.windeis.anl.gov/eis/index.cfm. Comments are solicited in accordance with instructions at http://www.windeis.anl.gov/involve/index.cfm until December 10, 2004. The web-based materials are extensive and thorough, providing links of great utility for understanding the state of wind generation today. These are not your father's windmills, and this is not your father's planet. Perhaps, through taking this step responsibly, we can turn it part way back that direction.

Responses for Document 80078

80078-001: As stated in Chapter 1, the National Energy Policy recommends that the Department of the Interior work with other federal agencies to increase renewable energy production on public lands. The BLM has focused on wind energy development in this PEIS, in part, in response to the number of ROW applications it has received. The BLM issued a policy designed to encourage solar power development on public lands in October 2004; information about this policy can be obtained at http://www.blm.gov/nhp/news/releases/pages/2004/pr041021_solar.htm.

80078-002: Restrictions on future wind energy development will be primarily limited to those identified in the proposed policies and BMPs (e.g., exclusions from specific areas or where impacts cannot be mitigated adequately). If developable wind resources exist on lands other than those identified in the MPDS, they will be considered available for development provided they do not conflict with the requirements of the proposed policies and BMPs.

80078-003: Thank you for your comment. It will be passed on to the researchers at the National Renewable Energy Laboratory who created these wind resource maps.

80078-004: As noted in our response to your second comment, if developable wind resources exist on lands other than those identified in the MPDS, they will be considered available for development provided they do not conflict with the requirements of the proposed policies and BMPs.

80078-005: As stated in Section 2.2.3.1, Proposed Policies, all Wilderness Areas and WSAs will be excluded from wind energy development.

80078-006: The proposed BMPs require public involvement regarding potential visual impacts of wind energy development.

80078-007: As required by the Wind Energy Development Program proposed policies and BMPs, site- and species-specific analyses, including the identification of seasonal bird migration activities and patterns, will be conducted for any proposed project on BLM-administered lands. The scope and approach for these 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.

80078-008: Thank you for your comment.

80078-009: Thank you for your comment.

80078-010: Thank you for your comment.

Document 80079

WindEISArchives

From: windeiswebmaster@anl.gov
Sent: Friday, December 10, 2004 3:34 PM
To: WindEISArchives
Subject: Wind Energy EIS Comment 80079

WIND_PEIS_-_Cmts_on_DEIS-FINAL...

Thank you for your comment, Mike Chiropolos.

The comment tracking number that has been assigned to your comment is 80079. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 10, 2004 03:33:52PM CDT

Wind Energy EIS Draft Comment: 80079

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Comment Submitted:
Comments are attached in Adobe Acrobat (.pdf) format and were also sent today via first-class mail.

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

CALIFORNIANS FOR WESTERN WILDERNESS • CENTER FOR NATIVE ECOSYSTEMS • DEFENDERS OF WILDLIFE • JACKSON HOLE CONSERVATION ALLIANCE • POWDER RIVER BASIN RESOURCE COUNCIL • SAGEBRUSH SEA CAMPAIGN • SAN JUAN CITIZENS ALLIANCE • SOUTHERN UTAH WILDERNESS ALLIANCE • THE WILDERNESS SOCIETY • WESTERN RESOURCE ADVOCATES WYOMING OUTDOOR COUNCIL •

December 10, 2004

Sent via first-class mail, postage pre-paid.

BLM Wind Energy Programmatic EIS
Argonne National Laboratory, EAD/900
97900 S. Cass Avenue
Argonne, IL 60439

Re: Wind Energy Development Draft Programmatic EIS
PUBLIC COMMENTS

Dear Reviewers:

Thank you for this opportunity to comment on the Wind Energy Development Draft Programmatic EIS ("Wind DPEIS"). The undersigned commentors are actively involved in energy issues currently facing the Interior West, and they remain vitally interested in the government's commitment to developing wind energy resources on lands administered by the Bureau of Land Management (BLM).

We applaud the BLM's interest in developing and initiative in examining renewable sources of energy. The dual purposes of the DPEIS are to assess the environmental, social, and economic impacts of wind energy development in the western states, and to evaluate alternatives to determine best management approach for mitigating impacts and facilitating wind energy development. DEIS at 1-1. We feel that this EIS is a strong first step toward developing renewable energy sources on our federal lands. We also feel that it is important that "green power" such as wind energy development also be green on the ground, as bad planning or inappropriate siting will set the cause back for this renewable resource by eroding public support for wind. Smart decision-making and project siting – including protection of habitat and special places – is in everybody's best interests. 80079-1

In developing the FEIS and implementing its recommendations, we urge the BLM to work closely with the visionary Governors who are positioning the Interior West to move beyond the fossil fuel economy and its associated boom and bust cycles, by calling for a speedier transition to a sustainable energy economy. These local leaders, such as New Mexico Governor Bill Richardson, are deeply and genuinely committed to establishing an energy economy that will serve the region long after fossil fuels supplies are exhausted. The Western Governors' Association recently approved a resolution calling for 30,000 megawatts of clean energy and

renewable power production to be built in the region by 2015, and calling for increasing energy efficiency in the region 20% by 2020. Several of these Governors are, at the same time, raising questions about the impacts of gas drilling on wilderness-quality landscapes, wildlife, water, and other vital resources. These actions by western governors show a commitment to developing clean energy resources in the West, and they demonstrate that the political will exists to capitalize on the West's wind resources. Simply put, these elected officials present a significant opportunity to move forward the proposals contained in this EIS and need to be listened to. 80079-1 (cont.)

As we said in scoping comments, the BLM should bear in mind the importance of continued popular support for wind energy development. At least as much as the economic and technology issues, the future of wind energy development depends on its continued perception as an environmentally-friendly and renewable power source with minimal environmental impacts. Accordingly, BLM must ensure that wind projects are carefully designed and sited to reduce and mitigate impacts, by assuring full public participation throughout the planning process. A poorly sited or designed project with highly-publicized negative impacts could unnecessarily set back the cause of renewable energy generation from public lands. Therefore, we encourage BLM to err on the side of caution with regard to the siting, design, and public involvement with respect to wind energy development projects. 80079-2

While we applaud the BLM's efforts with regard to regional planning of wind energy development, we also encourage the BLM to undertake a similarly comprehensive regional EIS that looks at oil, natural gas, and coal exploration and development on federal lands of the Interior West. The impacts from fossil fuel development and power plants are generally greater than those associated with wind, making a compelling case for a broader Programmatic EIS. The emphasis in the National Energy Policy on natural gas production in the Rockies region establishes an urgent need for such a region-wide programmatic look that analyzes the various combinations of energy sources to determine which makes the most sense – economically, socially, and ecologically – for the West and the nation. 80079-3

The Final Programmatic EIS Must Ensure that Existing Legal Requirements and Planning Processes are neither Undermined nor Ignored.

The Interior West possesses an abundance of wind energy potential that can make a significant contribution to the region's electric resource mix. Good wind areas, found on approximately 6% of the land in eleven Western states, could supply more than five times the region's current electricity consumption.[1] Wind resources are a clean energy source and provide an excellent opportunity for the West to reduce its reliance on environmentally-harmful fossil fuels such as coal and natural gas. Wind energy affords the benefit of a cleaner environment because, as opposed to fossil fuel combustion, wind generation and transmission produces no air emissions that endanger public health, results in no greenhouse gas emissions which contribute to global warming, and requires very limited water use. If developed and sited properly, wind energy has fewer and less significant impacts to land, air, and water than fossil fuel extraction and combustion. Wind energy offers the opportunity to shift the balance of energy development on public lands from high-impact fossil fuel technologies that create boom-bust economic cycles 80079-4

[1] See *Renewable Energy Atlas of the West*, available at www.energyatlas.org, at 8.

to lower-impact, sustainable technologies that make lasting economic contributions to local communities.

That said, wind energy projects should be treated the same as any other proposed use of federal lands, subject to thorough, site-specific analysis and public participation. All laws and regulations applicable to other projects on the federal lands must be complied with, including the National Environmental Policy Act, the Federal Land Policy and Management Act, the Endangered Species Act, the Migratory Bird Treaty Act, and other federal laws. Importantly, the BLM may not use this Programmatic EIS to avoid the duties of site-specific analysis that attach to individual wind energy development projects, such as the requirements to consider a reasonable range of alternatives, to analyze the direct, indirect, and cumulative impacts of each of these alternatives, and to solicit and respond meaningfully to public input. Moreover, whether the BLM is considering wind, oil and gas, coal, or other energy development, the agency is required to heed the letter and spirit of the provisions in FLPMA that provide for the "multiple-use and sustained yield" and the avoidance of "unnecessary and undue degradation" of public lands, which means that the level of energy development – even wind energy development – must be compatible with other uses of the federal lands and cannot result in marked degradation of healthy functioning ecosystems. 80079-4 (cont.)

a. The Final EIS Should Ensure that Project-Level NEPA Analyses Are Sufficiently Thorough and Site-Specific.

The DEIS provides that the level of environmental assessment that will be required for individual wind power projects will be determined at the Field Office level, may be limited to an environmental assessment (EA) and may tier off of the Programmatic EIS for potential environmental impacts. DEIS at 2-7. This direction, however, is inconsistent with NEPA's requirement for BLM to consider the direct, indirect, and cumulative impacts of a project. 40 C.F.R. §1508.8. To the extent the BLM purports to authorize tiering to this Programmatic EIS for "issues and concerns" associated with specific wind energy development proposals, see DEIS at 2-7, such tiering is proper only where the analysis of impacts in this EIS is sufficiently site-specific and detailed. This broad, regional programmatic impact statement cannot substitute for the detailed analysis of direct, indirect, and cumulative impacts required under NEPA.

80079-5

The assessment of environmental impacts set out in Section 6 of the DEIS is necessarily general due to the regional nature of this analysis, identifying the typical impacts of a wind energy development project (as described in Section 3) on various resource values. However, the 11-state study area included in the PEIS is widely diverse in terms of topography, wildlife and plant species, climate and amount of existing development. All potential sites will be characterized by unique resources, uses, impacts and public concerns. As a result, the impacts analysis in the Programmatic EIS will likely be insufficient to satisfy NEPA's directive to consider the impacts of a particular proposal. A substantial site-specific analysis of the impacts resulting from a particular wind development proposal should be conducted pursuant to NEPA.

In Section 2.2.3 and Section 6.1.2, BLM commits to requiring incorporation of best management practices (BMPs) into Plans of Development and Right-of-Way (ROW) grants as stipulations. Additional mitigation measures will be applied, also as stipulations, "to address

site-specific and species-specific issues." PEIS, p. 2-6. We support BLM's commitment to incorporating both the standard BMPs set out in Section 2.2.3.2 and site-specific measures as stipulations in the Plan of Development and/or ROW grant, such as those discussed in Section 5 of the PEIS.

In order for BLM to rely on mitigation of environmental impacts when considering a specific proposal, NEPA requires that BLM make a firm commitment to the mitigation measures, discuss the mitigation measures in sufficient detail to ensure that environmental consequences have been fairly evaluated, and fully assess their effectiveness at the proposed project location. Thus the effectiveness of the BMPs and mitigation measures set out in this Programmatic EIS will depend on the context of the project location. For example, the likelihood of successful restoration of vegetation will be significantly reduced in dry areas populated by desert grasslands, which are sensitive to disturbance and have shallow topsoil. The BMPs and mitigation measures identified in this Programmatic EIS are an important first step toward minimizing adverse environmental impacts from wind energy projects, and they will be helpful in providing general guidance to land managers. Nonetheless, the FEIS should clarify that in the context of a specific wind energy development proposal, mitigation measures incorporated as stipulations must be carefully tailored to site-specific conditions and rigorously analyzed as to the likelihood that they will reduce environmental impacts in the context of the wildlife, vegetation, land type and other site-specific characteristics. 80079-5 (cont.)

We also recommend that the FEIS advise land managers that an EIS may well be required for analyzing the impacts of individual wind energy development projects. Any commercially viable wind energy project is virtually certain to have the potential for significant environmental impacts, because the long-term nature the project and the substantial potential adverse impacts to wildlife, habitat, vegetation, open landscapes and other uses and users of the public lands. Commercial wind farms will have a large footprint and require a substantial support infrastructure. In light of the long-term presence of a wind energy project, public participation in reviewing and commenting on BLM's analysis and decisions is especially important. In the rare situation where BLM determines that an EIS may not be required, BLM should mandate that EAs for wind energy development projects be subject to meaningful public review and comment. NEPA requires that the public have an opportunity to review and comment on an EA where the EA is addressing a new or unusual resource use or may be subject to scientific or public controversy. 40 C.F.R. § 1501.4(2); see also CEQ's *Forty Most Asked Questions*, 46 Fed. Reg. at 18037. Wind energy is a new use that meets this standard. Because of the potential harm to avian and bat species alone, in no case will the siting of even a single turbine be appropriate for consideration as a categorical exclusion.

b. The Final EIS Should Ensure that Land Use Plan Amendments to Accommodate Wind Energy Projects Include Public Participation and Consideration of Environmental Impacts.

80079-6

In the DEIS, the BLM commits to amending certain land use plans (LUPs) to adopt provisions of the Wind Energy Development Program and to identify land available or unavailable for wind energy development. DEIS at 2-7. BLM also states that an EA may be sufficient for approval of a wind power project.

We commend BLM's acknowledgement that amendment of existing LUPs will be necessary where developable wind resources are potentially located. See DEIS Appendix C. Such an LUP amendment is required for a change in resource uses and change of decisions from the current plan, such as permitting wind energy development. See 43 C.F.R. §1610.0-5(b), §1610.5-5; BLM *Land Use Planning Handbook*, H-1601-1, Section VII.B. These proposed amendments include adoption of the proposed programmatic policies and BMPs and identification of specific areas where wind energy development would not be allowed. It is important that such LUP amendments be subject to thorough public review and comment, as they represent a change from historic land management direction and could serve to allow the long-term presence of wind energy projects. 80079-6 (cont.)

The BLM should also direct in the FEIS that, where a land use plan will be amended to accommodate a wind energy development proposal, not only will the standard BMPs from this Programmatic EIS apply but also specific additional mitigation measures must be evaluated for Plans of Development and ROW grant stipulations for the area. Further, as discussed above, in the context of a plan amendment, the analysis of environmental consequences of wind energy development should not simply tier off the discussion of BMPs or the mitigation measures contained in the Programmatic EIS. Rather, the Programmatic FEIS should clarify that the potential mitigation associated with various stipulations that might be mandated in a LUP amendment must be fully analyzed in the context of the area-specific landscape and other conditions in which the mitigation measures will actually be applied.

The Final Programmatic EIS Must Ensure Proper Siting of Wind Energy Projects.

Wind energy projects, as with all other types of development, are not appropriate for all public lands. As the BLM acknowledges, some federal land areas must be off-limits to wind energy projects. The DEIS provides that BLM will not permit wind energy development where it is "incompatible with specific resource values." DEIS at 2.6. We agree with and support BLM's recognition that wind energy development and its associated infrastructure is incompatible with and should be excluded from the specially-designated areas identified, including National Landscape Conservation System areas (National Monuments, National Conservation Areas, Wilderness Areas, and Wilderness Study Areas) as well as Areas of Critical Environmental Concern. We propose that BLM add to this list Native American sacred sites, citizen-proposed wilderness areas, areas of critical habitat, and habitats important for imperiled species. Finally, we urge BLM also to recognize that wind energy development and its associated infrastructure is incompatible with and should be excluded from areas that are designated or proposed for management to protect wilderness characteristics, and to recognize the impacts of wind energy development and its infrastructure to such areas as part of any analysis of environmental consequences. 80079-7

The April 2003 "no more wilderness" settlement does not affect BLM's obligation to value wilderness character or its ability to protect it, including in management designations which would also merit exclusion of wind energy development. BLM has not only claimed that it can continue to protect wilderness values, but has also committed to doing so. The Instruction Memoranda (IMs) 2003-274 and 2003-275, which formalize BLM's policies concerning 80079-8

wilderness study and consideration of wilderness characteristics in the wake of the settlement, contemplate that BLM can continue to inventory for and protect land "with wilderness characteristics," such as naturalness or the ability to provide opportunities for solitude or primitive recreation, through the planning process. The IMs further provide for management that emphasizes "the protection of some or all of the wilderness characteristics as a priority," even if this means prioritizing wilderness over other multiple uses.[2] As applied to this EIS, BLM's policies for wind energy development should also require a specific assessment of the potential impacts of wind energy development to lands with wilderness characteristics, whether or not these lands are already designated for management to protect wilderness characteristics or have been identified by the agency or the public for consideration for further protection. 80079-8 (cont.)

A thorough analysis of a reasonable range of alternatives will be absolutely essential to the proper siting of wind projects. We can envision scenarios where factors such as avian migration corridors, Native American sacred sites, or important wildlife habitat would counsel against selection of the exact site initially proposed by the project proponent, but there might be lands in the vicinity with equal potential for wind production that would avoid the unacceptable impacts of the proposed site. In such scenarios, comprehensive analysis of multiple siting alternatives would allow the project to proceed without causing undue harm, whereas narrowly construing the range of alternatives would result in poor decision making. NEPA's requirement that agencies study a reasonable range of alternatives was designed to resolve controversy and to balance competing public needs. We recommend that the FEIS advise land managers of the importance of thoroughly evaluating a reasonable range of alternatives when presented with a proposal for a particular wind energy development project. 80079-9

Moreover, meaningful involvement by state, tribal, and local governments, other agencies, and the public will generally require at least a 90-day comment period for a commercial wind farm. This is a relatively short period when compared to proposed projects with a duration of several decades. The benefits of comprehensive analysis and public review will pay off in future dividends: good siting and design decisions will minimize controversy and attendant delays and will ultimately result in successful and commercially-viable projects that enjoy strong public support. We recommend that the FEIS advise land managers to provide for 90-day comment periods for consideration of commercial wind farms. 80079-10

With respect to visually sensitive areas, VRM Class I and II objectives are, respectively, to "preserve" or "retain" the existing character of the landscape. 80079-11 Siting decisions for wind energy projects can be modeled on provisions of the Surface Mining Control and Reclamation Act "designating areas unsuitable for surface coal mining." See 30 U.S.C. §1272.[3] 80079-12 Federal wind

[2] The BLM Arizona State Office has formalized this guidance by providing for a land use allocation called "Management for Wilderness Characteristics." See AZ- IM-2004-021. Similarly, the recently-released Draft RMP/EIS for the Roan Plateau (prepared by BLM's Glenwood Springs Field Office in Colorado) includes managing certain areas to protect wilderness characteristics as a priority over other uses. *See*, 69 Fed.Reg. 68970. Further, in the Draft RMP/EIS for the Price Resource Area in Utah, the BLM included lands outside Wilderness Study Areas that have or are likely to have wilderness characteristics in the analysis of potential impacts. *See, e.g.,* pp. 4-21 – 4-22, 4-480 – 4-484.

[3] The National Academy of Sciences recommended policies to maintain healthy ecosystems and protect wilderness quality lands from oil and gas leasing and development in *Land Use Planning and Oil and Gas Leasing on Onshore Federal Lands* (1989). Specifically, the NAS study (at 115) recommended that, prior to leasing, other

projects should also ensure compliance with local zoning laws and land-use regulations. Moreover, siting should avoid incompatible land uses. Wind farms are most appropriately located where there are existing compatible land uses, such as agriculture. Initial site evaluation will be an important aspect of the planning process. Western Resource Advocates has published the *Renewable Energy Atlas of the West: A Guide to the Region's Resource Potential (2002,* www.energyatlas.org) that provides baseline data and maps showing the potential for wind and other renewable energy sources in the West. 80079-12 (cont.)

New road construction is also a concern with respect to new wind energy projects, including both wind farms and associated transmission capacity. New road construction and major improvements (such as paving and widening two-track dirt routes) should be minimized and existing routes relied on where possible. Best management practices on everything from road location to grading and maintenance should be required to minimize erosion, sedimentation of surface waters, forage losses, invasive species and habitat disruption. The measures in the DEIS for "traffic management plans" and road construction are a good start, see DEIS at 2-13 and 2-18, although more specific measures should be included in the FEIS to ensure that new roads are in fact minimized and, where they are necessary, are built in the most environmentally-protective manner possible. For example, the admonition in the DEIS to use existing roads "to the extent possible," see DEIS at 2-18, is not particularly helpful in guiding future transportation decisions. The BLM's "Gold Book" of Surface Operating Standards for Oil and Gas Exploration and Development might provide helpful guidance for the proper siting and construction of roads associated with wind energy development.[4] 80079-13

Transmission issues are another important aspect of wind energy development. Projects should be sited to take advantage of existing transmission capacity, minimize power loss during transmission, and minimize the construction of new transmission infrastructure. The *Renewable Energy Atlas of the West* is a useful resource for transmission planning in the Interior West, as it inventories resources in reference to existing infrastructure, such as transmission lines and substations. 80079-14

We encourage the BLM to include in the Final Programmatic EIS clear and enforceable standards to guide future siting decisions that make clear that wind energy projects are inappropriate and should not be authorized in the areas set forth above. We urge BLM to include in the Final EIS enforceable standards for visually sensitive areas in order to "preserve" or "retain" the existing character of the landscape. We urge BLM to adopt standards applicable to road construction, including best management practices for road location, grading, and maintenance. Finally, we urge BLM to include standards that will guide the use of existing transmission capacity and minimize the construction of new transmission infrastructure. 80079-15

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resources should be analyzed to determine whether oil and gas development can be regulated to control its impacts on other values to acceptable levels, with such stipulations as the planning process indicates are required to protect those other values. We urge BLM to adopt these recommendations for its fluid minerals program.

[4] See www.mt.blm.gov/oilgas/operations/goldbook/GoldBook.pdf at 12-20.

The Final Programmatic EIS Must Consider Specific Resources and Impacts.

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

1. The FEIS should provide for the thorough consideration of wildlife and wildlife habitat, with special attention to any threatened, endangered or other special-status species and essential wildlife migration corridors. The FEIS should also provide adequate buffers for certain habitat such as nest and lek locations. Moreover, the FEIS should accord full protection to vital winter range which is shrinking across the West. 80079-16

2. The FEIS should ensure the thorough consideration of plants and plant habitat where wind energy development projects are to be considered, with special attention to any threatened, endangered or other special status species as required by law. 80079-17

3. The FEIS should provide for the thorough evaluation of impacts to avian species -- especially migratory birds, raptors and bats -- and important flyways and raptor concentration areas. The FEIS should ensure that project siting and design minimize bird and bat mortality. The FEIS should include standards that ensure that projects are sited to avoid key migration routes of both birds and bats. The FEIS should also ensure through adoption of a BMP that the siting and design of turbines, supports, and associated powerlines avoid creating perching opportunities for birds. Raptors, for example, use human-made perches to prey on prairie-nesting species such as the prairie chicken, a species that has seen adverse impacts from such towers in recent years. In this regard, columns are generally better than lattice towers, and power lines should be buried to avoid both perching and electrocution. See DEIS at 2-18. Also, the FEIS should include standards to ensure that turbines are not placed on escarpment edges, as well as standards to ensure that the sweep point of the blades of any wind development project is higher than the apex of nuptial flights for birds in the area. Finally, we urge the BLM to carefully consider the potential impacts to birds and bats and the mitigation measures suggested in research conducted by Western EcoSystems Technology, Inc. See www.west-inc.com/wind_reports.php. 80079-18

4. The FEIS should provide for the thorough consideration of the visual environment, including scenic view-sheds, and establish specific standards to guide siting with respect to viewsheds. The BMPs with regard to Visual Resources in the DEIS should be retained or strengthened. See DEIS at 2-12. 80079-19

5. The FEIS should ensure that the agency's consideration of wind energy development projects complies with the National Historic Preservation Act (NHPA), including its requirements that all tribes and tribal organizations that may have an interest in the area are consulted and a cultural resources management plan is developed where necessary. The FEIS should ensure that the requirement that the agency protect culturally important sites and archeology is made clear. One way of doing so would be for the FEIS to make clear that the consideration of a proposed wind energy 80079-20

project is an "undertaking" within the meaning of the NHPA. See 16 U.S.C. §470f. The DEIS's discussion of Cultural Resources in Chapter 4 and the BMPs for consultation and cultural resource protection should be retained or strengthened. See DEIS at 4-50 and 2-14, respectively. 80079-20 (cont.)

6. To avoid creating an aural nuisance, the FEIS should limit decibel levels to acceptable standards, and it should establish an acceptable distance for the siting of wind energy projects from the nearest residences or recreational use areas. The direction in the DEIS that stationary construction equipment such as compressors and generators "should be located as far as practicable from nearby residences," see DEIS at 2-20, is insufficient to guide future siting decisions. The FEIS should establish minimum setbacks, along with specific standards to describe instances when the setbacks may be found to be inappropriate. 80079-21

7. In our scoping comments, we requested that the DEIS thoroughly consider electro-magnetic interference. The DEIS mentions the conflicting science as to the adverse health effects of exposure to electro-magnetic fields, and then simply states that more research is needed. DEIS at 3-18. The DEIS's statement that definitive data is not available does not appear to satisfy the BLM's duties of disclosure. See 40 C.F.R. 1502.22 (imposing procedural duties with respect to incomplete information). 80079-22

8. The FEIS should direct land managers making wind energy project siting decisions to thoroughly consider the proximity of potential wind energy projects to areas such as and National Parks and Wilderness Areas. BLM officials should carefully weigh public comments on wind energy projects near these specially-designated areas and consult with agency officials responsible for the management and protection of National Parks and Wilderness Areas. 80079-23

The Final EIS Should Discuss Energy Self-Sufficiency, Ensure Adequate Comprehensive Monitoring, and Evaluate the Economic and Ecological Tradeoffs Resulting From Wind Energy Development

The FEIS should provide that the agency will evaluate and consider wind energy projects with an eye toward maximizing power production from the resource and minimizing the environmental impacts of its development. In doing so, the FEIS should evaluate the role of wind power generally in achieving a greater measure of energy self-sufficiency in the Interior west and in reducing our reliance on imported fuels. Moreover, the FEIS should provide that once built, wind energy development projects will be rigorously monitored and evaluated in order to minimize that projects' impacts as well as to improve the siting and design of future projects. We support adequate funding for monitoring, maintenance, evaluation, and conduct of scientific studies relating to wind energy development projects. 80079-24

The FEIS should also include a comparative analysis of the costs and impacts associated with wind versus the region's increased reliance on coal. Wind energy development does not occur in a vacuum, and in light of the fact that several new coal-fired power plants have been proposed across the West, the BLM should look at the comparative regional costs and benefits of 80079-25

developing these two resources. Wind energy is a free, renewable resource and a source of clean, non-polluting electricity. The FEIS should include and thoroughly discuss comparative data on wind energy's tradeoffs, including its offset of fossil fuel consumption, the land and water impacts of fossil fuel development, the emissions from conventional power plants, and greenhouse gases associated with fossil fuels. Accordingly, the FEIS should thoroughly discuss and evaluate the energy conservation and greenhouse gas potential of each alternative discussed, as required by the Council on Environmental Quality regulations implementing NEPA. See 40 C.F.R. §1502.16(e), (f). 80079-25 (cont.)

The BLM Should Prepare a Similar Regional Programmatic EIS Examining Region-Wide Natural Gas Development

The BLM's preparation of the Programmatic EIS analyzing wind energy development on a region-wide basis calls into question the BLM's failure, to date, to prepare a regional Natural Gas Programmatic EIS on the impacts of implementing the National Energy Policy on federal lands in the Rocky Mountain states of the Interior West (Montana, Wyoming, Colorado, Utah, and North Dakota). Most of the reasons that a Programmatic EIS to discuss and evaluate wind energy development is a good idea apply with equal or greater force to the need for a Natural Gas Programmatic EIS.

For example, the National Energy Policy targeted selected BLM Resource Management Plans across the region as "Time-Sensitive Plans" requiring urgent revision to facilitate stepped-up exploration and development of natural gas. Ever since the BLM began implementing the National Energy Policy in the Rockies, leasing, seismic exploration, and drilling projects have surged. BLM, however, has neglected to study the cumulative impacts of this new natural gas activity across the region.[5] Even within mineral basins, BLM has violated NEPA by arbitrary bifurcating its planning efforts according to state lines or administrative boundaries – for example within the San Juan and Power River basins, or in the Red Desert/Great Divide region. In light of the fact that Western watersheds, airsheds, and migration corridors do not follow the same administrative boundaries as BLM Resource Areas, the BLM has not adequately collected or studied the cumulative impacts of its new natural gas policies and the new natural gas policies on a regional or even sub-regional basis. Conservationists have articulated comprehensive, regional visions for the ecologically-linked lands in the Interior West, and we encourage the BLM to do the same.[6] 80079-26

BLM and other federal agencies have taken concrete steps to facilitate natural gas development in the Rockies, such as preparing time-sensitive plans, promulgating new policies, directives, and Instruction Manuals, and forming the inter-agency Rocky Mountain Energy Council. The public, however, was not allowed to participate in the formation of the National Energy Policy and it was never made subject to public review or comment. In fact, the

[5] See *Drilling in the Rocky Mountains: How Much and at What Cost?*, The Wilderness Society, presented at 2004 North American Wildlife and Natural Resources Conference.

[6] See *Southern Rockies Wildlands Network VISION: A Science-Based Approach to Rewilding the Southern Rockies*, a publication of the Southern Rockies Ecosystem Project, Denver Zoo, and Wildlands Project (July 2003). See also *Heart of the West Conservation Plan*, a spatial analysis by the Wild Utah Project of the relative importance of various wildlife habitat cores and linkages throughout the Wyoming Basins Ecoregion (Spring, 2004).

administration has continued to stonewall in the face of public efforts to obtain the release of government documents associated with the development of the National Energy Policy. Should the BLM act proactively to programmatically address the regional impacts and alternative strategies to meet the projected increases in energy demand, it could reduce public controversy and assist with analysis when approving specific projects. 80079-26 (cont.)

Thank you for this opportunity to comment on the Draft Programmatic EIS for wind energy development. We look forward to continued participation in this process. Should you have any questions or concerns, please do not hesitate to contact us at the address below.

Sincerely,

Mike Chiropolos
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Dan Randolph
Oil and Gas Organizer, San Juan Citizens Alliance

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P.S.

The contact information for the submitter of these comments is:

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I will furnish contact information for other signatories who wish to be on the contact list to receive information, updates, and documents as this Programmatic EIS proceeds.

Responses for Document 80079

80079-001: Thank you for your comment. We appreciate your input and participation in the public review process.

80079-002: Thank you for your comment.

80079-003: Section 6.4.2 provides a brief discussion of the impacts of wind energy development as opposed to other sources of energy with respect to land area disturbance, air quality, water use, and waste generation. A comprehensive analysis of other energy sources compared with wind energy is beyond the scope of the PEIS.

80079-004: As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, including the development of an appropriate monitoring program, will be conducted for any proposed project on BLM-administered lands. The scope and approach for site-specific 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.

80079-005: Thank you for your comment. The PEIS states in several locations, for example, at Section 1.2, 5th paragraph, that the combined effects of location-specific and project-specific factors cannot be fully anticipated or addressed in a programmatic analysis and that such effects must be evaluated at the project level. The PEIS states at Section 2.2.3.1, 9th bullet, that additional NEPA analysis, tiered from the PEIS, as well as public involvement, will be required for individual site-specific project proposals. The PEIS further states at Section 2.2.3.1, 13th bullet, that entities seeking to develop a wind power project on BLM-administered lands shall develop a project- specific POD that incorporates all proposed BMPs and, as appropriate, the requirements of other, existing and relevant BMP mitigation guidance. Additional mitigation measures will be incorporated into the POD and into the project-specific ROW authorization as project stipulations, as needed, to address site-specific and species-specific issues. As stated in the PEIS at Section 2.2.3.1, 11th bullet, a CX may be applicable to the issuance of short- term ROWs or land use authorizations applicable to some site monitoring and testing activities. In no case would a CX be appropriate for wind farm construction and operation.

80079-006: The scope of the proposed land use plan amendments identified in Appendix C is limited to the adoption of the Wind Energy Development Program proposed policies and BMPs and the identification of a limited number of additional exclusion areas. The BLM has determined that the PEIS process adequately meets the NEPA requirements for public review of these proposed amendment changes. As required by the proposed policies and BMPs, site-specific analyses,

including the development of an appropriate monitoring program, will be conducted for any proposed project on BLM-administered lands. The scope and approach for site-specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. The scope and appropriate level of site-specific NEPA analyses will assess local conditions and site-specific environmental impacts and will support the development of project- specific stipulations.

80079-007: Exclusions of any additional areas from wind energy development will be determined at the project level as part of the site-specific analyses or through local land use planning efforts, with opportunities for full public involvement. As required by the Wind Energy Development Program proposed policies and BMPs, site-specific analyses, including the development of an appropriate monitoring program, will be conducted for any proposed project on BLM-administered lands. The scope and approach for site-specific 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.

80079-008: 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. These analyses will be conducted in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Consideration will be given to land use issues, including consideration of the wilderness characteristics of the lands.

80079-009: The evaluation of alternative wind energy development sites involves interactions between industry and the BLM regarding possible sites prior to submittal of a ROW application for development. These interactions often serve to screen out sites that are unsuitable for development for a variety of reasons. This PEIS further supports the identification of appropriate sites for development. Once a site has been selected, both on the basis of the environmental screening process and the presence of economically developable wind energy resources, the alternatives under consideration are essentially limited to the proposed action to develop the site and the no action alternative. The key questions in the project-specific NEPA analyses for the proposed action address the project site configuration and micrositing considerations and development of an appropriate monitoring program and appropriate, effective mitigation measures. As stated in the 9th bullet under Section 2.2.3.1, Proposed Policies, the project-specific NEPA analyses will include analyses of monitoring program requirements and appropriate mitigation measures.

80079-010: Thank you for your comment. No text change has been made to the document in response to your comment.

80079-011: 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. These exclusions are similar to the provisions of the Surface Mining Control and Reclamation Act designations.

80079-012: Section 5.10.5 lists mitigation measures related to potential land use impacts. The 1st bullet under the General heading of Section 2.2.3.2.2, Plan of Development Preparation, states that consultation will occur with appropriate agencies, property owners, and other stakeholders early in the site-specific planning process to identify potentially sensitive land use issues, rules that govern wind energy development locally, and land use concepts specific to the region. Exclusion of specific areas from wind energy development will be determined at the project level as part of the site-specific analyses.

80079-013: The minimization of roads and incorporation of BLM standards, including those in the Gold Book (RMRCC 1989), are already required under the proposed BMPs for developing the POD (see Section 2.2.3.2.2, Plan of Development Preparation, General, 6th bullet, and Roads, 1st bullet).

80079-014: The BLM will require the use of designated transmission corridors, when possible and appropriate, to reduce the need for additional transmission to carry wind energy generation to the existing transmission grid. The Renewable Energy Atlas is one type of resource the BLM will use in making decisions on new transmission infrastructure for a new wind energy project.

80079-015: The Wind Energy Development Program proposed policies and BMPs, as listed in the Final PEIS, establish concrete minimum mitigation standards. The language on these 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. Specific to protection of visual resources, proposed BMPs will require consultation with the public during the planning process and integration of the wind project facilities with the surrounding landscape (see the Visual Resources heading, Section 2.2.3.2.2, Plan of Development Preparation). In addition, proposed BMPs require that existing utility corridors be utilized (see the 6th bullet under the General heading, Section 2.2.3.2.2, Plan of Development Preparation).

80079-016: As required by the Wind Energy Development Program proposed policies and BMPs, species-specific analyses, including those of listed species and important habitats, will be conducted for any wind energy project proposed for BLM-administered lands. The scope and approach for species-specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Through this

process, the BLM will develop project-specific stipulations for incorporation into the POD. 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. Species-specific analyses are beyond the scope of the PEIS.

80079-017: As required by the Wind Energy Development Program proposed policies and BMPs (see Sections 2.2.3.1 and 2.2.3.2), species-specific analyses (including monitoring programs and preconstruction surveys) will be conducted for any proposed project on BLM-administered lands. The scope and approach for species-specific analyses will be determined on a project-by-project basis in conjunction with input from other federal, state, and local agencies, and interested stakeholders. In addition, a BMP has been added to Section 2.2.3.2.2, Plan of Development Preparation, under the Wildlife and Other Ecological Resources heading, stating that the BLM shall prohibit the disturbance of any population of a federal listed plant species.

80079-018: An evaluation of the impacts to avian species and bats is discussed in Section 5.9.2.2 and especially in Section 5.9.3.2.3.

The Wind Energy Development Program proposed policies and BMPs (see Section 2.2.3) identify requirements for identifying and avoiding important habitats (e.g., bat roost sites) and sensitive areas (e.g., wetlands), and for identifying and evaluating the presence and status of ecological resources and wildlife activity in the proposed area. As required by the Wind Energy Development Program proposed policies and BMPs, site- and species-specific analyses will be conducted for any wind energy project proposed for BLM-administered lands. The scope and approach for these analyses, which include predesign and preconstruction surveys, 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. The description of species- and site-specific analyses as well as project-specific design and siting stipulations is beyond the scope of the PEIS.

80079-019: 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.

80079-020: The PEIS assumes that all applicable environmental laws, including the National Historic Preservation Act, will be followed during a wind energy development project. Thank you for your comment.

80079-021: Many factors (including size and type of noise sources, meteorological conditions, topography, etc.) play a role in determining the sound levels at the

receptor locations. Accordingly, it is inappropriate to regulate sound levels at their source location only and/or to establish fixed minimum setbacks for situations that differ from project to project. Site-specific analyses will be conducted in conjunction with input from other federal, state, and local agencies, and interested stakeholders. The development of appropriate buffer zones for sensitive receptors (e.g., residences, schools, hospitals, etc.) will be evaluated in this process.

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

80079-022: Exposures to extremely low frequency electric and magnetic fields (EMF) were considered in Section 3.3.3. This summary attempted to convey the current state of the science regarding EMF, including conflicting results and confounding factors. A setback for wind turbine generators from residences and occupied buildings that is sufficient for noise and shadow flicker should also reduce EMF exposures.

80079-023: 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. These analyses will be conducted in conjunction with input from other federal, state, and local agencies, and interested stakeholders. Consideration will be given to surrounding land use issues, including public concerns regarding proximity of a proposed project to a specific area such as a National Park or Wilderness Area.

80079-024: A variety of economic factors, to be assessed by the wind energy development industry, will drive the pace of wind energy development and the location of specific wind power projects in the western United States.

The BLM is committed to full implementation of the proposed Wind Energy Development Program, elements of which require the incorporation of adaptive management strategies and 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 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.

80079-025: As is stated in the Executive Summary (page ES-1) and in Chapter 1 of the PEIS, the purpose of the PEIS is "to assess the environmental, social, and

economic impacts of wind energy development on BLM-administered land." A cost-benefit analysis of wind energy development would likely have included a regional analysis of the comparative economic and environmental costs of wind energy development compared with other forms of electricity generation, and conservation measures. Such an analysis would likely also have included impacts of wind development on fossil fuel consumption, land and water resources, and emissions from conventional power plants, and the impact on greenhouse gases. Although the analysis undertaken for the PEIS used a wind development scenario that takes into account some of these factors, in particular power generation capital costs, fossil fuel prices, and transmission line issues, the analysis is limited specifically to those environmental and economic impacts that result from wind energy developments on BLM-administered land. The analysis of impacts on comparative power generation costs, and environmental and economic impacts that emanate from other forms of electricity generation are beyond the scope of the analysis undertaken for the PEIS.

80079-026: 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 80080

WindEISArchives

From: windeiswebmaster@anl.gov
Sent: Friday, December 10, 2004 3:49 PM
To: WindEISArchives
Subject: Wind Energy EIS Comment 80080

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12-04_80080.doc ...

Thank you for your comment, James Mosher.

The comment tracking number that has been assigned to your comment is 80080. Once the comment response document has been published, please refer to the comment tracking number to locate the response.

Comment Date: December 10, 2004 03:48:58PM CDT

Wind Energy EIS Draft Comment: 80080

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