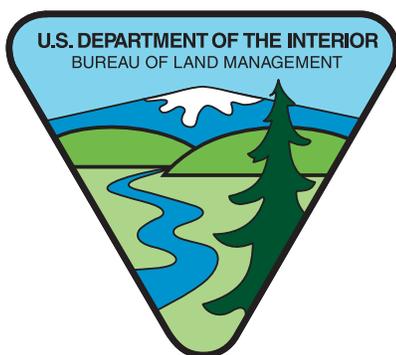


# Summary of Public Scoping Comments

## *Wind Energy Development Programmatic Environmental Impact Statement*

Prepared by  
Argonne National Laboratory

Prepared for  
Bureau of Land Management  
Lands and Realty Group  
Washington, D.C.



January 2004

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## **Summary Report of Scoping Comments Received on the Bureau of Land Management Wind Energy Development Programmatic Environmental Impact Statement**

The 60-day scoping period for the U.S. Department of Interior, Bureau of Land Management (BLM), Wind Energy Programmatic Environmental Impact Statement (PEIS) began October 20, 2003, with publication of a notice of intent in the Federal Register, and ended December 19, 2003. Scoping meetings were held in Sacramento, California (November 3), Salt Lake City, Utah (November 5), Cheyenne, Wyoming (November 12), Las Vegas, Nevada (November 18), and Boise, Idaho (November 20). Meetings were held at 1:00 p.m. and 7:00 p.m. in each location. A total of 157 individuals registered at the scoping meetings; 34 attendees verbally presented their comments and 8 submitted written comments. In addition to receiving comments verbally and by letter or comment card at the meetings, the BLM accepted comments via a dedicated Web site, facsimile, and mail.

Approximately 110 documents containing comments were received from individuals, organizations, and government agencies, in addition to the verbal comments provided at the public meetings. Twenty-four states were represented; 80% of the commenters were from states in the study area, 30% were from California alone. Comments were received from nine state agencies (California, Montana, New Mexico, Utah, Washington, and Wyoming), three federal agencies (U.S. Fish and Wildlife Service, Western Area Power Administration, and U.S. Air Force), four local government organizations (Board of Fremont County Commissioners, White Pine County Public Works, the Elmore County Commissioner, and the Kern County Planning Department), and nearly 60 other organizations (including environmental and interest groups and industry). Seventy-two percent of the comments were received via the Web site, 21% were received by mail, and 7% were received by facsimile. About 850 individual scoping comments were received. Although many of the comments touched on more than one issue, the following is a general breakdown on how the majority of the comments were divided: 22% of the comments addressed engineering and design issues, 18% addressed wildlife, 15% addressed national program and policy, 11% addressed monitoring and mitigation, 11% addressed land use, and 6% addressed visual impacts.

The following sections summarize the comments received during scoping by topic. This summary is intended to reflect all comments received during the scoping phase equally and does not attempt to assign weight or value to any input. This document is intended to assist the BLM in developing the scope of analysis to be conducted in the PEIS on the basis of public input. Therefore, specific comments and context are not provided here, only ideas represented in those comments that can be applied directly to preparation of the PEIS. For example, many commenters provided their views on the value (positive or negative) of wind power development; only the issue areas they raised in conjunction with their views are present in this scoping summary report. Copies of the individual letters, facsimiles, and electronic comments received during scoping are available on the BLM Wind Energy Development PEIS Web site (<http://windeis.anl.gov>).

## National Wind Energy Program Elements

**General.** Commenters provided suggestions regarding establishment of a comprehensive National Wind Energy Program that promotes wind energy development and would establish more efficient, timely, and less costly project-specific review and approval processes. To accomplish this, the commenters suggested the PEIS should (1) address regional issues adequately so that subsequent project-specific approval efforts can focus on local issues; (2) address issues associated with monitoring and testing activities through construction, operation, and restoration; (3) provide guidance and resources to the BLM Field Office level to promote consistency regarding the review and approval of wind energy projects; (4) consider ways to maximize the use of available data in reviewing and approving projects; (5) expand the knowledge base to minimize the potential for duplicate analyses; (6) identify and evaluate institutional, legal, or other barriers impeding wind energy development on BLM-administered lands, and (7) consider the use of Categorical Exclusions, best management practices, or other mechanisms for approving both site testing and monitoring projects and wind energy development projects.

At the same time, other commenters expressed concern that the PEIS and the National Wind Energy Program should not jeopardize the thoroughness, completeness, and objectivity of project-specific reviews. They stressed that the associated, required public participation process should not be limited or minimized.

Several commenters expressed concern regarding how the PEIS would impact ongoing wind energy development projects. Other comments related to programmatic elements were made: it was suggested that the BLM establish requirements for pre-development assessments, post-development monitoring procedures, and adaptive management guidelines to be implemented Bureau-wide. One commenter suggested that the BLM develop a "fatal flaw analysis" method for screening candidate projects.

**Relationship of PEIS to Existing Land Use Plans.** Commenters requested that the PEIS discuss how it will (1) affect or support the amendment of current land use plans and (2) address issues faced by each of the affected BLM field offices. Commenters suggested that the process should allow flexibility in the amendment of related land use plans and provide for maintaining environmental protection measures in existing plans.

**Interagency Coordination and Consultation.** Commenters suggested that the BLM should promote early coordination and consultation with other agencies, including the U.S. Fish and Wildlife Service, the U.S. Air Force, and local agencies, before approval is granted for site testing and monitoring facilities, as well as full-scale wind energy development projects. In contrast, one commenter expressed concern that further involvement of additional agencies would increase the financial burden on developers.

Commenters suggested that the relationship between BLM rules and land use plans to state and local land use laws and practices needs to be clarified. Several commenters suggested that the concerns of public authorities, special public districts, and local cooperatives need to be considered.

**Stipulations.** Commenters provided suggestions regarding the establishment of stipulations, standards, or regulations addressing wind energy development. These included comments that the BLM should (1) establish concrete and enforceable standards that are consistent with existing applicable compliance regulations, to ensure recognized values are conserved and protected; (2) establish reasonable regulations that will not exclude small companies, on the basis of cost to comply; (3) make sure that wind regulations do not go "overboard;" (4) establish a clear, unambiguous, and graduated enforcement process

for ensuring that companies comply with established requirements; and (5) establish site monitoring requirements to ensure proper environmental management at the site.

**Policy.** Commenters made many suggestions regarding policies that might be established as part of a National Wind Energy Program. These included establishing policy to address a broad array of issues, such as the following:

- Establishment of a comprehensive National Energy Policy;
- Promotion of Renewable Portfolio Standards;
- Subsidies and incentives for wind energy developers;
- Competitive leasing of wind energy resources in certain areas;
- Incentives, compensation, and benefits for local communities and private landowners;
- Bonding requirements and right-of-way (ROW) termination clauses;
- Leasing issues associated with checkerboard land ownership;
- Oversight of private-party contracts to foster successful development that meets environmental management obligations;
- Limits on the amount of land that can be tied up by one company;
- Providing exemptions for certain project activities or establishing requirements specific to the scale of a project;
- Sharing costs of environmental studies with developers; and
- Allowing existing permittees (e.g., grazing permittees) the right to develop wind energy resources.

**Fees and Royalties.** Commenters suggested that the BLM consider (1) possible exemptions from ROW fees for state agencies interested in collecting wind data on BLM-administered lands and (2) splitting royalties with county governments.

**Indirect and Cumulative Impacts:** Commenters requested that the PEIS fully assess the indirect and cumulative impacts associated with all stages of wind energy development. Specifically, it was suggested that the assessment should include impacts to visual resources, wildlife, habitat, and development on adjacent lands. These analyses should be conducted on a regional scale and should include all other reasonable foreseeable future actions, such as mining, livestock grazing, and road development, that could cause impacts (e.g., habitat fragmentation or degradation) similar to those caused by wind energy development.

**Other.** It was suggested that the BLM consider establishing a renewable energy advisory board, state-specific technical advisory committees to oversee wind energy development in each state, a facilitator or advocate for wind energy development activities, performance standards for processing ROW applications, a “complaints department,” and a clearing house for information within the BLM regarding developers and their performance records.

## Engineering, Siting, and Design

**Infrastructure.** The public commented that the PEIS should evaluate siting and design criteria to minimize the impacts of roads, transmission lines, and ancillary support facilities associated with wind energy development to sensitive species, native plant species, migratory pathways, wildlife habitat, soil, surface water, cultural resources, and viewsheds. Considerations should include placement of intra-project power lines; storage of spare parts, placement of transformers; transformer design; and placement and design of operations and maintenance buildings. The PEIS should also take into account that new roads will provide access to currently inaccessible areas.

**Turbine Design.** Commenters suggested that the PEIS should identify and describe specific turbine types and their operating characteristics. The PEIS should evaluate turbine design standards that will minimize adverse impacts to wildlife, particularly birds. The public expressed concern that the wind turbines and supports should be designed to avoid creating perching and nesting opportunities, which, in turn, would help reduce bird-turbine collisions. Consideration should also be given to reducing the impact of tower lighting on birds and bats, including analysis of redesigning lighting requirements and using alternatives to lighting, such as different paint schemes and nacelle transponders.

Commenters requested that the maximum height of the towers be considered from the standpoint of impacts to wildlife, general safety, and aesthetics. In addition, the PEIS should evaluate how specific arrangements and orientations of turbines relative to the landscape might reduce wildlife and visual impacts. The BLM also should consider post-construction monitoring and evaluation requirements needed to minimize impacts and improve siting and design of future projects.

**Siting.** The PEIS should discuss guidelines for siting and constructing wind energy projects and identify areas suitable for development and areas to avoid. The public suggested that siting considerations should include the following:

- The degree to which the land has already been developed or fragmented by other uses;
- Proximity to National Parks, Wilderness Study Areas, Areas of Critical Environmental Concern, Visual Resource Management areas, cultural resource areas, recreational areas, roadless areas, and residences;
- Compatibility with existing land use;
- Height of equipment in relationship to ridge lines;
- Impacts to flora and fauna (e.g., key sensitive areas, wildlife migration corridors);
- Impacts of offshore wind energy developments on marine reserves;
- Risk of landslide and fire associated with steep terrain;
- Visibility issues (e.g., fog, low clouds, low visibility) that could impact birds;
- Concerns of the Federal Aviation Administration and military, including the Doppler effect of turbines on radar;
- Availability of transmission interconnections and ease of construction;
- Ease of accessibility for maintenance and operations; and
- Use of geographic information system (GIS) overlays to evaluate potential sites with respect to key values (e.g., wildlife routes, critical habitat, visual resources, Wilderness Study Areas, etc.).

## **Air Quality**

The public commented that the PEIS should evaluate impacts of wind energy development on air quality. The positive, indirect effects on natural resources and air quality that would be realized by not using fossil fuels for energy should be discussed.

## **Noise**

The PEIS should assess the impacts of noise associated with wind facilities, including assessment of noise levels on a variety of species, the effects of noise pollution on property values, and the general nuisance factor of noise that can be heard from residences or recreational areas. Decibel levels of the turbines should be evaluated according to their ability to meet acceptable standards.

## **Economics**

Commenters requested that the PEIS include an explanation of the current system of wind subsidies, BLM's fee and royalty structure, and how wind energy development might affect local economies (e.g., employment, tourism, recreation, property values, local tax revenues, applicable tax credits, electricity rates and reliability, and other fiscal impacts to local governments). A full economic analysis of the costs and benefits of wind facility siting should be presented, including costs and benefits to federal, state, and local governments, local communities, and private landowners.

## **Land Use**

**General.** Commenters would like the PEIS to discuss the extent to which the public will be allowed access to wind energy ROW areas and to analyze the impacts that access restrictions would have on recreation, hunting, or other uses in these areas. Public access to new roads created for wind energy development should be included in the analysis. The possibility of land exchanges should be considered. Commenters also requested that the PEIS address other conflicting land use issues, such as the difficulty of conducting fire restoration on the western landscape if wind farms are present (see also multiple use summary below).

**Multiple Use.** Commenters requested that the PEIS discuss whether wind energy development is compatible with existing land use practices (e.g., grazing, agriculture, mining), how wind energy development will affect other users, and the cumulative impacts of multiple use.

**Military.** Some commenters requested that the PEIS discuss the potential conflict that wind energy projects could have on military testing and training activities. This should include wind energy sites that are hundreds of miles from the nearest military installations but, nevertheless, could interfere with military operations conducted in the project area. These commenters suggested that the PEIS include GIS overlays that identify potential areas of conflict. Other commenters proposed that the PEIS consider the effect of giving the military (Air Force) the flexibility to withdraw lands from development and consider appropriate and reasonable compensatory actions for military air space and land use impedance.

**Mining.** The public commented that the PEIS should consider public lands that are being used or will be used for mining as potential wind energy sites. It was suggested that using existing infrastructure at these sites (e.g., roads, power lines, substations) could alleviate some capital costs, project lead time,

additional surface disturbance, and further impacts to landscapes and visual resources. One commenter requested that the PEIS consider ways to provide an efficient and practical mechanism for transitioning from surface occupancy authorized under the General Mining Law to ROW or other types of surface occupancy.

### **Disturbance of Land Surfaces (Soils and Water)**

The public commented that the PEIS should evaluate the impacts to soils and water (e.g., erosion, compaction, sedimentation) caused by the disturbance of land surfaces during construction of supporting infrastructure (especially new roads) and ancillary facilities required for wind turbine operation and maintenance. Impacts to streams should be assessed in terms of lost vegetation, effects on wildlife, bank stability, and water quality.

The PEIS should discuss best management practices, minimum construction standards, and mitigation strategies designed to reduce the impacts to land surfaces that occur during the creation of new roads and pads used for wind energy sites.

### **Wetlands and Other Sensitive Habitats**

The public commented that the PEIS should discuss potential impacts and ways to avoid impacts to habitats designated as a Resource Category I (e.g., fens) and other sensitive habitat types, such as wetlands (including riparian areas and prairie potholes), grasslands, woodlands, and habitats utilized by large mammals. Wetlands that overlap with areas that have a high potential for wind power production should be inventoried and described. Where wetland losses cannot be avoided, appropriate mitigation measures should be discussed.

### **Vegetation**

Commenters noted that the PEIS should consider the impacts of construction and maintenance of wind energy projects on the plant community. Particular attention should be given to impacts to threatened or endangered species and native plant communities. The PEIS should discuss measures that could be taken to minimize and mitigate impacts on native vegetation, particularly those resulting from construction activities, and evaluate their effectiveness. It was suggested that the BLM should allow all vegetation management tools necessary to accomplish meaningful mitigation.

### **Wildlife**

**General.** The PEIS should analyze the impacts of constructing and operating wind energy projects, including support facilities and infrastructure, on wildlife, especially:

- Sensitive or at-risk species and species of special status as determined by each of the affected states;
- Species listed, proposed, or candidates under the Endangered Species Act;
- Species protected pursuant to the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act); and

- Birds of conservation concern as identified on the Birds of Conservation Concern List.

The public commented that the analysis should include impacts to Resource Category I habitats and other sensitive habit types such as wetlands, woodlands, and habitats utilized by large mammals (e.g., migration corridors, and wintering, calving, and rearing areas). The PEIS should assess whether the proliferation of wind energy projects in an area would degrade the habitat of sensitive species (e.g., sage grouse) enough to warrant listing them. Commenters requested that habitat fragmentation and abandonment specifically be discussed in the PEIS. The discussion of impacts to sage grouse habitat was mentioned repeatedly as being of significant concern.

The public commented that the PEIS should present strategies for avoiding and minimizing potential adverse effects to nesting and foraging birds and bats, other areas of high bird concentrations (e.g., leks), and flyways (e.g., for bats, migrants, waterfowl, and raptors). These include designing towers and support facilities that minimize: (1) perching opportunities, (2) the risk of electrocution, and (3) the risk of collision. Mitigation measures to discourage raptors from using the area should be included (e.g., controlling rodents and reducing the availability of carrion). Some commenters suggested that the BLM should consider adoption of the U.S. Fish and Wildlife Service's *Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines*; others, however expressed concern about adopting these guidelines.

In addition, information should be included on areas to avoid when siting wind energy projects. Timing of site operations should be considered. The public requested that the effectiveness of current mitigation measures be evaluated.

***Inventories/Surveys.*** Commenters suggested that standard practices for pre-and post-construction population surveys for migratory birds, raptors, bats, large ungulates, and other species likely to be affected by wind energy facilities should be established for all seasons. Species occurrence, habitat use, and potential migratory pathways should be documented. Commenters requested that the PEIS present overlays of locations of best wind sites versus key wildlife habitat areas and migratory routes. In addition, commenters suggested that the BLM consider ways to maximize the use of available data and minimize the potential for duplicate studies and analyses.

***Bird and Bat Mortality.*** Commenters believe that the PEIS should consider direct mortality of birds and bats due to electrocutions and collisions with wind turbine rotors, towers, tower guy wires, and power lines, and that pre- and post-development mortality studies are needed. Commenters requested that impacts be disclosed on a species-specific basis, with special emphasis on raptors, migratory birds, and other species of conservation concern. Commenters also suggested that mortality associated with wind energy development should be compared to deaths associated with other types of development, such as collisions with buildings. Other commenters suggested that the BLM define what constitutes a significant impact in terms of bird mortality.

## **Visual and Aesthetic Impacts**

Commenters want the PEIS to evaluate the visual and aesthetic impacts of wind energy projects and the tradeoffs between wind energy development and visual resource impacts. The PEIS needs to address concerns that wind power structures and infrastructure may be inconsistent with visual quality standards for specific areas; the public is particularly concerned with limiting scenic impairment from roadless areas, wilderness areas, and recreation areas. The public requests that impacts to viewsheds and

landscapes associated with National Historic Trails and other historically significant transportation corridors and cultural landscapes be considered when siting and designing wind energy projects. Particular attention should be given to maintaining consistency with existing Visual Resource Management (VRM) Classes. It was suggested that the BLM clearly define what constitutes a significant impact to visual resources. The public requests that the BLM conduct a visibility analysis of 50-and 100-m wind turbine heights, from wilderness areas. Consideration should also be given to the viewshed of homes.

Once wind project sites are determined, commenters suggested that towers and turbines should be designed to be as visually unobtrusive as possible. The PEIS should discuss the visual impacts of various lighting options for the towers, especially their effect on nighttime vistas. The visual impact of the location of the turbines in relationship to each other (spacing) should be considered.

The public also commented that the PEIS should discuss measures to assure that wind energy project sites are maintained. For example, the BLM should consider establishing requirements regarding how often graffiti and litter need to be removed. The visual impacts of abandoned wind turbines should also be addressed.

### **Sacred, Historical, and Cultural Resources and Landscapes**

The public commented that the PEIS should consider impacts to sacred, historical, and cultural sites and traditional cultural properties and practices. Relevant federal and state laws and regulations should be applied, including compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, that requires consultation with State Historic Preservation Officers and tribal governments. It was commented that government-to-government consultation with tribes who have historical and cultural claims and associations, including treaty and adjudicated aboriginal territorial claims, to affected land areas should occur as early as possible in the process both at a technical level and at the policy decision-making level. The PEIS should include a discussion of tribal rights of undisturbed access and use of sacred, cultural, and historical sites by tribal practitioners. It was also requested that proposed projects be evaluated for impacts on tribal reservation development opportunities in the same region with regard to transmission interconnection and capacity. It was suggested that the tribes be offered a right of first refusal for development on lands subject to historical and cultural claims and associations.

Commenters emphasized the importance of considering National Historic Trails and other historically significant transportation corridors, with particular attention to viewsheds and landscapes. Concerns were raised over how the PEIS might assure that a sufficient level of effort will be placed on identifying cultural landscapes. Concern was also raised as to how well adverse effects to Western scenery would be mitigated given the current political climate and budget constraints.

### **Monitoring and Mitigation**

**Monitoring.** The PEIS should include a discussion of monitoring activities and methodologies used to evaluate the effects of wind energy development on wildlife and wildlife habitat. Environmental monitoring should begin with the meteorological towers and continue during the initial years of wind farm operation. Uniform metrics for assessing impacts should be developed in the PEIS. Information should be included on monitoring schedules and the types of data to be reported (plant and animal inventories, mortality, etc.). Emphasis should be placed on using monitoring data to minimize impacts and improve siting and design of future projects.

**Mitigation.** Commenters would like to see the PEIS identify standard mitigation procedures for common environmental impacts (e.g., road reclamation and ROW maintenance, fire precautions, hazardous substance releases, waste management). The BLM should consider developing a list of off-site mitigation practices that can be evaluated for project applications and negotiations. This could include requiring permanent protection of off-site habitat or payment into a fund that purchases and/or protects sensitive habitat area. The BLM should also investigate the feasibility of implementing requirements for greater levels of mitigation at sites with higher habitat values. More detailed comments on mitigation or monitoring are summarized under other topics.

### **Removal and Restoration**

The public requested that the PEIS include a discussion of wind turbine equipment and ancillary facility removal and site restoration. Commenters expressed concern over the expiration of ROWs and the abandonment of wind projects and how BLM would assign responsibility for removal and associated costs, enforce compliance, and ensure restoration. Commenters suggested that the BLM establish bonding mechanisms to provide for cleanup and restoration. Another suggestion was to have a ROW termination clause requiring removal of a facility if impacts are proven to be significantly greater than predicted.

### **Wind Energy Versus Other Energy Sources**

The public commented that the PEIS should include a discussion that compares the environmental impacts (e.g., to air, land, water) of using other energy sources (e.g., fossil fuel, nuclear, hydroelectric, other renewable energy sources) to those associated with wind energy. In particular, it was commented that attention should be paid to greenhouse gas emissions and a comparison of electric rates and their variability. It was cautioned that the analysis should be framed so that each energy source provides for the same amount of electricity generation to allow a meaningful and fair comparison across all impact areas.