

Western Renewable Energy Zones
Comments Received on Environment and Lands Working Group Products
February 2 – March 2, 2009

American Wind Energy Association

Lori Jodziewicz

It is critical to differentiate between transmission line planning on a regional scale and wind energy project planning. Areas identified as suitable, or unsuitable, in the final WREZ report for wind energy development may or may not be appropriate when assessing a particular project area. The WREZ report should assist stakeholders with identifying potential areas for transmission lines at a landscape level because the data collected is appropriate at that scale. However, the same report should not be used for decision-making in relation to individual wind energy projects. AWEA understands that the WREZ report will not be used in this way, and it is critical that all stakeholders in the WREZ process accept the resulting tool as it is intended. AWEA submits the following comments on the relevant work group documents posted for public comment. AWEA intends to remain engaged with this process and provide additional feedback and input as appropriate.

Not all viable wind energy project areas will be identified

The WREZ report should make clear that there are high quality, economically developable wind and other renewable energy resources that are located outside of the WREZ areas. Some of these resources can be interconnected at the distribution level, and, therefore, do not need additional transmission. Others can be interconnected to existing or newly upgraded transmission lines to serve either local or regional markets and so do not require the new, large scale, regional transmission additions that are the subject of the WREZ project. Finally, there may be circumstances where retirements of existing generators make room on existing transmission for new renewable energy projects. In all these cases, WREZ should be clear that there are very substantial renewable energy resources that can, and should, be developed, in addition to those identified in the WREZ process.

Additional wind industry input would benefit the process

AWEA commends the WREZ process for its openness to stakeholder inputs. The meetings have been well noticed and well organized. However, just opening the door does not mean that all stakeholders are either able or willing to participate equally. There have been occasions where a sole AWEA representative has been the only wind industry voice in WREZ meetings. It is vital that WGA recognize the limitations of this approach and that the resulting products may not fully reflect the positions of all stakeholders.

Zone Identification and Technical Analysis (ZTIA) Comments

Weight of data from interconnection queues

Data from interconnection queues should not be given much, if any weight in developing final WREZ. Queues are a product of a Federal Energy Regulatory Commission (FERC)-inspired process for studying feasibility and costs to interconnect new generation projects to the existing grid. Wind energy developers who enter these queues are doing so with the expectation that they will interconnect with existing facilities and are incented to find those few remaining

development sites where their interconnection is likely to be found feasible at low cost. The project location incentives that inspire a developer to enter a queue, current feasibility and least cost, are not the reasons to locate a WREZ, which we understand to be best resources at favorable large scale regional economics. In addition, some developers may enter queues to chalk up development milestones, without full consideration of even least cost and feasibility.

Cost consideration of in-state resources

The wind resources identified at 50 meters might understate the wind resource found at 80 or 100 meters which might represent the hub height of the majority of turbines that will be installed in the future. The technical assumptions are for 80 M hub height machines. Where wind resources are identified as in-state resources, and not included in WREZ [see language below], we question their omission from the cost curves. The ZTIA work group should consider equal treatment for all resources identified.

WREZ text:

The WREZ project does not supersede or negate state renewable energy initiatives, but is intended to provide a foundation for interstate collaboration on commercial delivery of renewable energy. Resources outside the proposed zones will be identified in this study, but they will not be considered in the supply curve analysis as they are developable as in-state resources and do not depend on regional collaboration.

Application of wildlife data to WREZ

AWEA is concerned about the application of wildlife filters to the candidate WREZ. We think that the process for incorporating wildlife data into the WREZ process should be approached with great care. It is unlikely, in our view, that definitive wildlife data will be supplied in the time contemplated for completion of WREZ Phases I and II. If that is the case, then AWEA supports including larger WREZ areas in the MW potential analysis. We think this would allow the WREZ process of identifying regional level resources for WREZ Phases III and IV to continue. With improvements in wildlife data over time, adjustments of development within WREZs can avoid or mitigate newly discovered or defined wildlife conflicts.

Concern about application of wildlife data to Candidate Study Areas (CSAs)

Candidate Study Areas (CSAs) will not reflect all wildlife sensitivities, but will have this information incorporated before final REZ designation. Final designation of WREZ should proceed on the basis of including areas where generalized wildlife concerns are asserted, or where some stakeholders raise “sensitivities” about wildlife, but where adequate a scientific basis for exclusions, or exclusions based on regulation or law, cannot be shown.

“Other work” to identify CSAs

AWEA questions the development percentages that are assumed and would like the “other work” done in the field to be stated before accepting these quantified percentages. Certainly these percentages will vary, depending on the local geography, locations of features, soil types, and a number of other variables. In the “State Resource Potential” document we request that Baja California be included in the “States MW potential and minimum wind class” table.

Wind energy cost and resource assumptions

Data from a recent 2009 Xcel bid now before the Colorado Public Utility Commission for approval of a Power Purchase Agreement (PPA) shows a 151.8 MW Northeastern Colorado wind project had initial year costs starting below \$50/mWh, escalating to about \$75 over twenty five years. Wind capacity factors at a Southeastern Colorado wind site where Springfield, Colorado municipal utility runs a turbine shows an average annual wind capacity factor for 2008 of 46.81 percent. In the “Technology Assumptions” document, the price range of \$75/MWh to \$125/MWh should be altered to reflect a lower threshold than \$75/MWh as reflected by current transactions.

1. Klondike III at \$63.50/MWh per BPA which is inclusive of integration costs (Oct. 2007: <http://www.bpa.gov/power/pgc/wind/KlondikeROD.pdf>)

2. FPL’s latest project in Colorado is \$49.66/MWh escalating at 2% annually, scheduled for COD in 2009 (Colorado PUC DOCKET NO. 09A-020E)

Costs in the wind assumptions may be overstated. Capacity factors assumed may be understated.

Environment & Lands (E&L) Comments

Areas of Critical Environmental Concern (ACECs)

Inclusion of Bureau of Land Management (BLM) Areas of Critical Environmental Concern (ACECs) for wind energy in the Initial Avoidance Areas is a concern. BLM’s Instruction Memorandum (IM) 2009-043 states that ACECs should not be universally excluded from wind development or site monitoring and testing. The E&L Work Group should insure the Initial Avoidance Areas conform to the 2009-043 IM, which states:

Wind energy development is permitted in one National Conservation Area, the California Desert Conservation Area (CDCA), in accordance with the provisions of the *California Desert Conservation Area Plan 1980*.

All land use planning efforts initiated after the issuance of this IM will address wind resource potential, public concerns, and opportunities for wind energy development within the land use planning area consistent with the BLM Land Use Planning Handbook (appendix C). Field offices will incorporate wind energy resource development potential in these planning efforts to facilitate the processing of future wind energy applications.

All new, revised, or amended land use planning efforts will address and analyze ACEC land use restrictions individually, including restrictions to wind energy development. For future land use planning efforts, ACECs will not universally be excluded from wind energy site testing and monitoring or wind energy development but will be managed consistent with the management prescriptions for the individual ACEC. Existing land use plans and planning efforts may be amended as necessary, with appropriate level of NEPA analysis and decision, to address this change in wind energy and ACEC policy, consistent with the procedures of 43 CFR 1610.5.5. A site-specific land use plan amendment to address this change in policy may be addressed concurrently with the processing of a wind energy application. This revised policy will continue to provide protection of sensitive resource values in ACECs consistent with the management prescriptions for the individual ACEC.

Avoidance and Exclusion Areas

Land use plans may identify right-of-way avoidance areas or exclusion areas under the BLM land use planning guidelines (see Appendix C of the BLM Land Use Planning Handbook H-1601-1). Avoidance areas, as defined by the land use planning guidelines, do not preclude the issuance of rights-of-way for wind energy site testing and monitoring activities or wind energy development or preclude the issuance of permits, leases, or easements under Section 302 of the Federal Land Policy and Management Act (FLPMA). These uses in avoidance areas may be available with special stipulations or mitigation measures. For such authorizations, the area's environmental sensitivity and other feasible alternatives will be strongly considered.

Visual Resource Management – Class I and II

The E&L Work Group should reconsider including Visual Resource Management (VRM) Class I and II areas in the Initial Avoidance Areas list. BLM's Instruction Memorandum 2009-43 states: "The VRM management classes are not intended to be used to exclude or preclude land uses, including opportunities for development of wind energy in areas with high wind energy resource potential."

Off-Highway Vehicles (OHV) Open Areas

OHV Open Areas should not be included in the Initial Avoidance Areas list. The use of OHVs is not incompatible with wind energy development.

Audubon Wyoming

Brian A. Rutledge

1. Additions to Exclusion and Avoid Areas

ZITA Qualifying Resource Areas

According to the notes, the QRAs shown do not reflect wildlife sensitivity areas; as wildlife sensitivity areas are a primary concern for us in this process, we understand that adjustments will be made moving forward to account for such factors. Our recommendations outlined below do take into account wildlife sensitivity areas, and in fact wildlife sensitivity (together with wind power potential and social elements) drives our analysis for the areas that should be prioritized for wind energy development. In particular, sage grouse and birds of prey are primary wildlife concerns in Wyoming that in large part drive exclusion areas for our analyses.

WY_NO – This area is suitable for becoming a Renewable Energy Zone. Within this area are located some active sage grouse leks and raptor nesting concentration areas that should be excluded from wind development (5 mile buffer for sage grouse leks; 1 mile buffer for raptor nesting concentration areas). We mapped most of this proposed area as either "Wind Power Promotion Area" or "Wind Power Caution Area – single resource concern." Eastern portions of the area fall within the Thunder Basin – Ogallala portfolio site from the Northern Plains Conservation Network, an area of large, intact grassland ecosystem. We would recommend that utility-scale generation occur in small, scattered arrays rather than large contiguous projects. Several historic trails and sites should be avoided for viewshed purposes, and wetlands and cottonwood gallery woodlands along major watercourses should be buffered by a mile for the

purposes of wind turbine siting to mitigate impacts to birds and bats. The Wyoming Infrastructure Authority maps most of this area as “No Significant Environmental Conflicts Identified.” We recommend this unit for Renewable Energy Zone designation and priority transmission infrastructure development.

WY_EA – This area is suitable for becoming a Renewable Energy Zone. Within this area is located a single sage grouse lek that should be excluded from energy development with a 4-mile buffer. The southwestern quadrant of this unit, along the Laramie Range, is an important wildlife migration and dispersal corridor identified in the Spine of the Continent (Heart of the West) conservation plan network; wind development in this area should be limited to small, widely scattered turbine arrays. The area has important historic sites and trails and Plains sharp-tailed grouse leks that should be avoided wherever possible, and wetlands and cottonwood gallery woodlands along major watercourses should be buffered by 1 mile for the purposes of wind turbine siting to mitigate impacts to birds and bats. The Wyoming Infrastructure Authority maps most of this area as “No Significant Environmental Conflicts Identified.” We recommend this unit for Renewable Energy Zone designation and priority transmission infrastructure development.

WY_SO – The eastern half of this unit (east of the major southern notch) is suitable for becoming a Renewable Energy Zone, while the western half of this unit is questionable for becoming a Renewable Energy Zone. In our analysis, the western half is mapped mostly as “Wind Power Caution Area – multiple resource concerns,” encompassing an important wildlife migration and dispersal corridor in the Spine of the Continent conservation plan as well as important segments of the Overland Historic Trail. The eastern half is mapped mostly as “Wind Power Promotion Area” in our analysis. The Wyoming Infrastructure Authority maps the Pole Mountain unit of the Medicine Bow National Forest as “Wind Power Likely Precluded,” and we concur with this assessment; other portions of the area were mapped as either “Significant Environmental Conflicts” or “No Environmental Conflicts Identified.” We recommend the eastern half of this unit for Renewable Energy Zone designation (potentially combined with WY-EA), and recommend against the western half of this unit for inclusion in a Renewable Energy Zone.

WY_EC – This unit is highly questionable for becoming a Renewable Energy Zone. Our analysis mapped most of this area as “Wind Power Caution Area – multiple resource concerns,” with exclusion areas along the northern and western sides associated with sage grouse leks and exclusion areas associated with Medicine Bow National Forest roadless areas through the center of the unit. Bald eagle roosting and concentration areas (recommended for exclusion) occur along the northern end of this unit. The State of Wyoming has several Sage Grouse Core Areas in this unit. Additional cautions include historic trails, big game crucial ranges, an important wildlife migration and dispersal corridor along the Laramie Range which is part of the Heart of the West (Spine of the Continent) conservation plan along the Laramie Range. The wind power potential of this area is also questionable – while from a wind power-density perspective the potential appears ideal, rugged topography leads to gusty and changeable wind patterns that are hard on wind turbines, which we have been told by wind industry representatives makes much of this area prohibitive from a turbine maintenance and down time perspective. While there are

likely a number of possible sites that could be developed while managing conservation concerns to minimal levels, we recommend against designating this unit as a Renewable Energy Zone.

WY_WE – This unit is unsuitable for becoming a Renewable Energy Zone. The subunits are discussed individually as follows.

Southeast subunit - The northwestern lobe of the southeasternmost subunit contains several raptor concentration areas and is also completely covered with sage grouse breeding and nesting habitats which also are part of a State of Wyoming Sage Grouse Core Area; the southern part of this subunit is almost entirely on the Medicine Bow National Forest, including the Rock Creek Roadless Area (Management Area 1.2 – Proposed Wilderness under the Forest Plan). The Wyoming Infrastructure Authority maps the northwestern part of this unit as “Significant Environmental Conflicts” and the southern portion as “Wind Development Likely Precluded;” the eastern lobe is mapped by the State as “No Significant Environmental Conflicts” and our own analysis indicates that raptor nest sites and the Black-footed Ferret Recovery Area warrant proceeding cautiously in the eastern lobe, but some wind development should be possible without major conflicts if development proceeds responsibly.

East-central subunit – This subunit has important sage grouse breeding and nesting habitats in its northern lobe, most of which is part of a State of Wyoming Sage Grouse Core Area. The remainder of the unit is mapped in our analysis as caution areas, with multiple cautions including big game crucial ranges and migration corridors, most of the area falling within the Shirley Basin Core Area identified in the Heart of the West/Spine of the Continent conservation plan, some scattered raptor nesting issues, and the Shirley Basin Black-Footed Ferret Recovery Area. The Wyoming Infrastructure Authority as a mix of “Significant Environmental Conflicts” and “No Significant Environmental Conflicts Identified.” In our analysis, small and scatter wind projects would be possible in the southern part of this subunit if they proceeded with adequate caution, but large-scale projects are not recommended.

Northern subunit – Much of this subunit is comprised of lands containing active sage grouse leks (virtually the entire subunit falls within a State of Wyoming Sage Grouse Core Area), and there are also raptor nesting concentrations that should preclude wind energy development in some parts of the subunit. A minor of the subunit is rated as having single or multiple cautions, where limited utility-scale wind power generation might occur if it is pursued with appropriate caution. The Wyoming Infrastructure Authority rates this subunit almost entirely as “Significant Environmental Conflicts.”

Southwestern subunits - The two southwestern subunits are comprised almost entirely of lands containing active sage grouse leks (most of which has been designated as Sage Grouse Core Area by the state), with major raptor concentration areas (which should independently preclude wind farm siting) also involved. The west-central subunit also includes the Ferris/Killpecker Dune Complex, which provides obligate habitat for the Threatened blowout penstemon, and since wind development in active dune areas could slow windspeeds and result in the capture of actively migrating dunes by vegetation (thereby excluding the blowout penstemon, which requires bare sand), these areas should be excluded from wind power development as well. There are pockets of these two subunits that have cautions that could be mitigated by appropriate

facility construction, but our analysis indicates that the vast majority should be precluded from development. The Wyoming Infrastructure Authority similarly rates the vast majority of these subunits as “Significant Environmental Conflicts,” with minor pockets of “Wind Development Likely Precluded” and “No Significant Environmental Conflicts Identified.”

2. Public comment should be provided as maps and data are updated and revised.

It is unclear whether WGA will be providing a comment period for WREZ maps and data after wildlife data and additional Exclude and Avoid data have been included. Though the timeline for finalizing the WREZs is short, the inclusion of these data will have significant impact on the WREZs, and it is critical that the public be provided the opportunity to comment on these changes and for WGA to fully consider any issues identified or recommendations made. Finalizing the WREZs without providing for public involvement at this stage will limit the usefulness and effectiveness of the WREZ process and could limit the amount of stakeholder buy-in for the final WREZs. Audubon Wyoming recommends (at the very least) that the Wyoming Governors Association provides a four week public comment period on this important process.

3. Sage Grouse Core Area Planning Process

The State of Wyoming has set in motion the Core Area Planning Process for the Greater Sage-grouse. The overall goal of this initiative is to maintain and enhance populations and distribution of sage-grouse by protecting and improving sagebrush habitats and ecosystems that sustain these populations. The overarching framework of the plan is science-based conservation planning, identification and mitigation of threats to the sagebrush ecosystem and sage-grouse populations. It is imperative that the WGA take into account the best available Wyoming wildlife data during this planning process. Audubon Wyoming is disappointed that, to date, little has been done on this front by the WGA.

For an up to date account of the State of Wyoming’s sage grouse management efforts, the enclosed link will be helpful to the WGA.

http://gf.state.wy.us/wildlife/wildlife_management/sagegrouse/index.asp

Conclusion

Identification of appropriate priority areas for renewable energy and transmission development is critical in ensuring protection of our wildlife and wild lands while meeting our energy needs and combating climate change. Development planning should be a transparent, public process which brings all affected stakeholders to the table and takes into account the socioeconomic and cumulative impacts of development. Development should be prioritized in already degraded areas which are close to existing transmission and load and have minimal environmental conflicts. Prioritizing development on these types of lands will protect natural resources and allow for faster permitting and development because conflicts will be avoided as much as possible. Audubon Wyoming is concerned that while tremendous headway is being made with this project, to date, the Phase One release offers a very cursory identification of renewable

resources (i.e. where the wind blows and the sun shines) in Wyoming. Our concern is that this may lead to assumptions regarding the suitability of REZ that are largely not suitable.

BrightSource Energy

Arthur Haubenstock

BrightSource Energy strongly supports the work of the Western Governors' Association in identifying the most environmentally-responsible and economically-sensible areas for renewable energy development. This effort, in turn, will form the basis for determining the need for robust, reliable and appropriately-sited transmission to deliver the renewable energy its member states and provinces need. The involvement of a diverse, broadly representative group of stakeholders, including state and federal wildlife and energy agencies, environmental groups, renewable developers, and utilities in this work is essential to the success of this effort, reflecting on all of the needs that must be taken into consideration to ensure our energy infrastructure is clean, sustainable, and located with minimal environmental impact. The exclusion and avoidance lists are important tools to protect against environmental concerns, and should inform renewable developers' efforts to site their projects in areas that will work well with their surrounding environment and will be less subject to controversy and delay, enabling them to begin their contributions to the fight against climate change more quickly. Future lists of the most desirable locations for development, taking into consideration the technical resource needs required to ensure economic and efficient renewable energy production, will be a very valuable addition.

At this time, the only specific comment that BrightSource offers is a recommendation for a clarification regarding the "Uniform Category Label" for National Landscape Conservation System Units in the Exclusion list. This label should include solar, along with the currently-noted wind and geothermal, as subject to specific exceptions to the exclusions (this is a clarification rather than a substantive change, as solar exceptions are noted in the "Description of Screen" in that list, and in both the Uniform Category Label and description in the Avoidance list).

BrightSource appreciates this opportunity to provide its comments, and would like to take this opportunity to thank all of the entities and individuals that are involved in this important process. We look forward to participating in the continuing work of the Western Governors' Association in promoting environmentally-responsible renewable energy.

City of Fort Collins, Natural Areas Program

This letter is in response to the request for comments on the draft documents and maps developed by the Western Renewable Energy Zones Project. More specifically, comments are directed to the proposed Qualified Resource Areas.

The City of Fort Collins Natural Areas Program (FCNA) owns approximately 20,000 acres of land in northern Larimer County that is part of a conservation effort called the Laramie Foothills Mountains to Plains Project. More specifically, the Project is partnership of public and private conservation organizations and private landowners whose goal is to conserve, through conservation easements and fee title, a connection between the mountains and plains. To date

the partnership has conserved an essentially contiguous area extending 22 miles across, from the native grasslands along I-25 to the foothills and lower reaches of Roosevelt National Forest. A portion of the Laramie Foothills project area is located within the Southern Wyoming Qualified Resource Area ([see Map 1](#)).

Properties owned by the FCNA within this region include Soapstone Prairie Natural Area, Round Butte Ranch, and Bernard Ranch. Additionally, conservation easements are held on Wire Draw Ranch and Roberts Ranch as shown on the attached map. Funds used to purchase fee title and conservation easements are generated through a dedicated City of Fort Collins sales tax and a Larimer County sales tax. In addition, Great Outdoors Colorado has participated in the purchase of these properties and conservation easements.

Properties are managed to not only conserve an important connection between the mountains and plains, but also to provide habitat for many species in need of conservation. Recent inventory efforts have revealed many species of plants and animals listed as state threatened or of special concern along with several rare plant communities ([see Attachment 1](#)). Efforts to conserve cultural resources also are a major effort of the partners. The Lindenmeier Archaeological Site, a National Historic Landmark is found within this landscape along with hundreds of known cultural sites dating from pre Folsom to modern day ranching.

In addition to properties held in fee title, FCNA has placed conservation easements on portions of Soapstone Prairie Natural Area (known as the Roman Ranch; [see Map 2](#)), Round Butte Ranch, and Bernard Ranch and holds conservation easements on Roberts Ranch, Wire Draw Ranch, and Red Mountain Open Space. Each of the conservation easements specifically prohibits wind generation facilities unless they are associated with an allowable structure on the property.

We recognize the important role that wind and solar power production has in the region's energy future, but hope that production or transportation facilities in the Laramie Foothills Mountains to Plains can be sited to minimize impacts and maximize protection of biological and scenic resources. We also recognize that given the purpose behind our conservation efforts in the Laramie Foothills and the millions of dollars spent to conserve one of the few remaining undeveloped Front Range connections between the mountains and plains in Colorado, large scale wind and solar energy facilities on or near our properties are not always compatible with our conservation mission. We ask that you consider the efforts of the Laramie Foothills Mountains to Plains Project and the conservation values found within this unique landscape when finalizing your planning effort.

Defenders of Wildlife

Kim Delfino

On behalf of Defenders of Wildlife ("Defenders") and our more than half a million members and supporters in the U.S., I am writing to provide comments on the Western Governors' Association Western Renewable Energy Zones Qualified Resource Areas maps and tables. We incorporate by reference the comments submitted by the Wilderness Society and Western Resource Advocates.

Defenders is dedicated to protecting all wild animals and plants in their natural communities. To this end, Defenders employs science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions in order to impede the accelerating rate of extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

Defenders strongly supports the emission reduction goals found in AB 32 and California's very aggressive renewable energy goals, which were recently reiterated in California Executive Order S-14-08. To this extent, we are committed institutionally to working with both state and federal agencies and private energy companies to help craft solutions towards increasing renewable energy production that is not at the expense of wildlife and its related habitat requirements.

The Western Governors' Association (WGA) Western Renewable Energy Zones (WREZ) initiative has the potential to facilitate responsible renewable energy and transmission development. The recommendations below aim to improve the WREZ process and help ensure that the final products of the initiative are as helpful as possible in meeting lands, wildlife, and resource protection while facilitating renewable energy development.

The WREZ Initiative Needs to Shift Focus to Direct Development to Disturbed and Degraded Lands to Avoid and Minimize Impacts to Wildlife and Habitat Areas.

We believe that, at the outset, the WREZ Initiative suffers from a fundamental flaw: the failure to start this process with the prime directive that this process should take all steps to evaluate and encourage the placement of renewable energy projects on already disturbed and degraded lands. By taking a "low impact" approach at the outset, the initiative could make a much greater effort in its analysis to discover what areas would be the most suitable for energy development. Unfortunately, the analysis starts out by assuming that all land is potentially available and we will only take off the table the "most sensitive" or most fraught with litigation potential. By taking a "defensive" posture in the analysis, the WREZ Initiative did not emphasize seeking out and refining information about disturbed lands.

We urge that the next phase of WREZ shift the focus of its analysis to look for "disturbed and degraded" lands, which are located in close proximity to existing transmission corridors, as the first priority lands to be developed for renewable power. These lands could include:

- * Abandoned mine sites
- * Already developed transportation corridors
- * Producing oil and gas fields
- * Brownfields
- * Lands where other commercial operations on public lands are comparable to the scope of the proposed renewable energy project
- * Abandoned/damaged agricultural lands.

These "degraded" areas must also be lands that have not been identified as in need of restoration or important for wildlife conservation.

The WREZ Initiative Must Take A “Landscape-based” Approach.

Defenders’ believes that the WREZ Initiative needs to consider ecosystem processes (i.e., climate, primary productivity, hydrological processes, biophysical habitats, interactions between organisms, movements of organisms, and natural disturbance regimes) and solar energy’s impact on them on a “landscape-level” basis. The WREZ Initiative needs to look at more than just the various types of lands and species impacted. It must also consider an ecosystem-focused analysis that deals with impacts to specific large geographic areas such as river corridors or major wildlife migration routes.

Defenders advocates for a landscape-based approach to wildlife conservation because a focused analysis of the development impacts to large geographic areas on western lands is crucial to the long-term viability of many species of concern, such as the Mohave ground squirrel and Desert tortoise. We have seen that proposed energy corridors can come close to protected area borders and potentially threaten the overall migratory ability of wildlife endemic to the region.

Last year, the U.S. Fish and Wildlife Service convened a Federal Advisory Committee (FACA) of various state, tribal, industry and conservation stakeholders to provide advice on how to craft wind power siting guidelines. Defenders’ staff serve on that committee as one of the wildlife conservation stakeholders. The FAC process is expected to conclude by late 2009, with the FWS issuing its next iteration of guidelines in 2010. We hope to create a product that reflects the principles and recommendations detailed above, while also providing a flexible and workable system for developers to use. It is expected that the guidelines issued by the FWS will be voluntary in nature; therefore, we are exploring mechanisms that would help to ensure the broadest possible adoption of the guidelines.

Defenders urges WREZ to follow the FAC process and incorporate its recommendations into any products. The work of the Federal Advisory Committee and details of the tiered risk framework, as they emerge, will be posted at the FAC website:

http://www.fws.gov/habitatconservation/windpower/wind_turbine_advisory_committee.html

A parallel process is being undertaken by The National Wind Coordinating Committee (NWCC), through its in-process revision of its “Studying Wind Energy/Bird Interactions” methods and metrics guidance document (Anderson et al. 1999). Both processes are pursuing a risk assessment framework with tiered levels of investigation.

The details of this framework are still under consideration by the NWCC and the FACA; however, Defenders can present some of the general principles. An important aspect of this framework is that it brings wildlife and habitat considerations into the siting process very early. As we envision it, the developer would look at landscape level issues (at very little time and resource cost, because it utilizes existing data), and undertake communication with wildlife agencies and characterization of site wildlife risk before significant irretrievable resources have been committed to the site. We urge that WREZ recognize the importance of early coordination

on wildlife and habitat issues with respect to all types of renewable energy projects on public lands.

The proposed framework follows a tiered approach that draws from landscape-level mapping exercises, previously identified important habitats, and existing information about wildlife species to help avoid areas of high importance to wildlife, identify questions for further investigation, make siting and micrositing decisions, assess mortality and displacement effects, and plan for adaptive management measures.

Additions to Exclusion and Initial Avoidance Areas

Defenders strongly urges that all lands considered to be a part of a Habitat Conservation Plan or Natural Community Conservation Plan's "conservation reserve/strategy" should be part of the exclusion areas. These lands should be avoided at all costs given the availability of other lands for development. We also believe that all lands under conservation easement should be in the exclusion areas as development of renewable projects on these lands are incompatible with the terms of a conservation easement.

We also urge that lands identified as wildlife corridors for declining, rare, endangered, and threatened species should be largely excluded from development. In addition, we urge that globally and continentally Important Bird Areas should be excluded from development.

Biodiversity Information Is Missing to Inform What is or is not a Qualified Resource Area

The Qualified Resource Areas (QRAs) open for comment are helpful in identifying areas with high resource potential which have undergone some environmental screens. However, additional screens are necessary before QRAs can become Renewable Energy Zones (REZs). We recommend that the QRAs conduct the following additional screens:

- * Incorporate wildlife data – The WGA must gather and incorporate wildlife data as planned in the WREZ process. This data must provide information of species occurrence, species richness and rarity. Moreover, this data should include critical habitat and other habitats identified in state and federal species recovery plans.
- * Refine wildlife data to include climate change scenarios and modeling – Given projected shifts in species ranges, we urge that the QRAs are analyzed using the best available climate change models and data to indicate where areas should be avoided for development due to climate change.
- * Refine QRAs to exclude all areas on the Exclude and Avoidance list - the current QRA boundaries intersect with areas of high biodiversity value.
- * Refine QRAs to include energy zone and transmission line planning efforts in states – California is currently engaging in a number of planning efforts to designate areas for renewable energy siting as well as areas to avoid for energy projects and transmission (e.g., Renewable Energy Transmission Initiative). We urge that the information generated from these kinds of efforts is incorporated in the QRAs.

Friends of the Columbia Gorge
Rick Till

Friends of the Columbia Gorge (“Friends”) has reviewed and would like to comment on the Environmental and Lands Working Group’s (ELWG) lists for avoidance areas, initial exclusion areas, and additional areas for sensitivity consideration. Friends is a non-profit organization with over 5,000 members dedicated to protecting and enhancing the resources of the Columbia River Gorge through the effective implementation of the Columbia River Gorge National Scenic Area Act (“Act”) and other federal, state, and local laws. Our membership includes hundreds of citizens who reside in the six counties within the Columbia River Gorge National Scenic Area.

Friends supports appropriately sited renewable energy development. While renewable energy sources must play a critical role in reducing dependence on carbon-based energy sources, renewable energy facilities, such as large-scale wind facilities, have the potential to cause significant adverse impacts to natural, scenic, cultural, and recreational resources. The proposed Western Renewable Energy Zone (WREZ) must aggressively discourage energy development in areas where significant adverse impacts are likely.

The Columbia River Gorge National Scenic Area

Exclusion Areas are “areas where development is already precluded by statute or regulation.” The Columbia River Gorge National Scenic Area Act expressly prohibits industrial uses in the National Scenic Area. 16 USC 544d(d)(6), see also Management Plan for the Columbia River Gorge National Scenic Area, Glossary at 10 (definition of “industrial uses”). As such, the ELWG must add the National Scenic Area to the Exclusion Areas list. In addition, areas within five miles of the National Scenic Area must be added to the Initial Avoidance Area list.

Encouraging large-scale wind energy development to be located in the vicinity of the National Scenic Area would lead to significant adverse effects to scenic and natural resources. This would directly undermine the primary purpose of the Act, which is to protect and enhance the natural, scenic, cultural, and recreational resources of the Gorge. 16 USC 544a(1), see also Oregon Administrative Rule 345-022-0000(1)(a) (prohibiting wind energy development that would cause significant adverse impacts to the National Scenic Area).

Two draft Qualified Resource Areas (QRAs) have been proposed within and adjacent to the boundary of the National Scenic Area. The National Scenic Area stretches from the mouth of the Sandy River in the west to the mouth of the Deschutes River to the east. The “Draft Preliminary QRA Map” circulated by the Zone Identification and Technical Analysis Work Group depicts a QRA extending into the Scenic Area from the west and another extending into the Scenic Area from the east. The ELWG must ensure the Scenic Area and adjacent lands are excluded from these QRAs.

The scale of modern wind energy facilities dwarfs what could have been anticipated when the boundaries for the National Scenic Area were adopted. The lands in the National Scenic Area were selected in part based on viewshed analysis from key viewing areas within the Columbia River Gorge. These key viewing areas include scenic highways and popular recreational destinations. The viewsheds from these key viewing areas extend to include many of the ridgelines and hilltops that form the rim of the Columbia River Gorge. To protect these views the

Scenic Area boundary was drawn along or behind the ridgelines to ensure that development within the viewshed would not cause an adverse effect to scenic resources. When drawing the boundaries Congress focused on typical residential, commercial, and industrial development at that time, and did not contemplate wind turbines as large as the ones commonly in use today. The development of wind facilities exceeding 400 feet in height along the boundary of the Scenic Area has the potential to significantly frustrate the scenic resource protection provisions of the Act.

As a result, it is imperative that the ELWG list areas within five miles of the National Scenic Area as an Initial Avoidance Area.

Additional Areas to be included as Exclusion Areas and Initial Avoidance Areas

The proposed Avoidance Area list does not include other areas where industrial development is or should be prohibited. This includes federally designated Wild and Scenic River Areas. The Renewable Energy Zone would include hydroelectric power as a form of renewable energy. Hydroelectric power is prohibited along designated Wild and Scenic Rivers and along certain rivers in the National Scenic Area. Wild and Scenic River Act, 16 USC 28 § 1278; National Scenic Area Act, 16 USC 544k. Wild and Scenic River Area management plans may prohibit additional forms of renewable energy development, thus reinforcing the need to include Wild and Scenic River Areas in the Exclusion Area list.

Other areas that should be included in the Exclusion Areas list and the Initial Avoidance Area list include all areas designated as sensitive habitat. For example, the lists provided by the ELWG did not appear to include Washington State Priority Habitats. Priority habitats, such as oak woodlands and oak savannas, should at least be included on the Initial Avoidance List. Also, pursuant to the Washington State Growth Management Act, counties in Washington must designate Critical Areas where development activities are severely restricted. Thus, at the county level there may be additional areas that must be included as Exclusion Areas and Initial Avoidance Areas. The ELWG must ensure that it thoroughly researches the full range of regulatory designations that may dictate where renewable energy should be directed.

The ELWG must also list areas in the vicinity of protected areas. Similar to the impacts that can be anticipated if development is encouraged along the boundary of the National Scenic Area, numerous other Exclusion Areas and Initial Avoidance Areas could be impacted by the construction of industrial energy facilities in the vicinity. For example, National Parks, Wilderness Areas, and Wild and Scenic River Areas are often designated for the protection of scenic resources. These protections could be fundamentally undermined if large-scale wind facilities are encouraged to be sited near, but just outside, their boundaries.

Protections for Residential Areas

New medical science is emerging that may link large-scale wind energy development to adverse impacts to human health. Several researchers have identified a plausible link between sound and shadow flicker generated by wind turbines to impacts to human health. While the medical research is in its nascent stage, the ELWG should carefully consider the best available science

and apply the precautionary principle in developing standard setbacks for QRAs from residential areas. As a starting point, the ELWG should establish a 1.25-mile setback from residential areas.

Grasslands Conservation Council of BC (GCC)

Owen Fritch

As a registered non-profit working to conserve and sustain the health of remaining grassland habitats in the Province of British Columbia, the Grasslands Conservation Council of BC (GCC) is concerned about developments or approved Development Zones that will negatively impact areas with important grassland ecological values.

Grasslands are a rare ecosystem type in British Columbia and have been severely impacted by agricultural and urban development. Remaining areas of intact natural grasslands are often restricted to steep slopes and ridgetops, the same areas that are favored for windpower projects. We are concerned that development of these wind energy resources will further fragment and degrade these few remaining areas of undisturbed grasslands, and threaten the continued survival of many species at risk that are dependent on grassland habitats.

The GCC has produced a spatial layer of remaining natural grasslands in British Columbia. This spatial layer can be obtained directly from the GCC, or from the Land and Resource Data Warehouse of the Province of British Columbia (<http://www.lrdw.ca/>). A preliminary analysis has revealed that 1760 hectares (4357 acres) of grassland habitat falls within the proposed Renewable Energy Zones (REZs), mostly in the Peace Region of Northeastern BC and the South Okanagan Region.

Additionally, the GCC is currently engaged in a project to identify and delineate areas of grasslands that contain high ecological values, and that should be a priority for grassland conservation efforts. To date, we have only completed the Priority Grasslands Analysis for the Thompson Basin region of South-Central British Columbia, but we are working to extend this analysis to the entire province. Our position is that there should be no further loss or fragmentation of these Priority Grassland Areas to development or other land uses.

Pending the completion of our Priority Grasslands Analysis, it is our position that the development of Renewable Energy resources should not involve constructing new roads into grassland areas, as the fragmentation, introduction of weeds, and increased access that follows road construction would negatively impact the ecological values in these areas. We can provide spatial layers of grasslands that are currently unroaded, and would like to see these areas incorporated into your Initial Avoidance Areas.

Horizonwind

Logan Winston

The WREZ project should incorporate wildlife data with great care and allow for continuing data updates as wildlife data will improve over time. Given this, adjustments of development within WREZs can avoid or mitigate newly discovered or defined wildlife conflicts. Lastly, final designation of WREZ should proceed on the basis of including areas where generalized wildlife

concerns are asserted, or where some stakeholders raise “sensitivities” about wildlife, but where adequate a scientific basis for exclusions, or exclusions based on regulation or law, cannot be shown.

Specific Concerns regarding Initial Avoidance Areas and Exclusion Areas

We believe the following areas identified as Initial Avoidance Areas do not necessarily preclude wind development:

- Area of Critical Environmental Concern: ACEC's, instead of as currently listed, the Initial Avoidance Areas needs to conform to the language in BLM Instruction Memorandum No. 2009 - 043, which states:

Wind energy development is permitted in one National Conservation Area, the California Desert Conservation Area (CDCA), in accordance with the provisions of the California Desert Conservation Area Plan 1980.

All land use planning efforts initiated after the issuance of this IM will address wind resource potential, public concerns, and opportunities for wind energy development within the land use planning area consistent with the BLM Land Use Planning Handbook (appendix C). Field offices will incorporate wind energy resource development potential in these planning efforts to facilitate the processing of future wind energy applications.

All new, revised, or amended land use planning efforts will address and analyze ACEC land use restrictions individually, including restrictions to wind energy development. For future land use planning efforts, ACECs will not universally be excluded from wind energy site testing and monitoring or wind energy development but will be managed consistent with the management prescriptions for the individual ACEC. Existing land use plans and planning efforts may be amended as necessary, with appropriate level of NEPA analysis and decision, to address this change in wind energy and ACEC policy, consistent with the procedures of 43 CFR 1610.5.5. A site - specific land use plan amendment to address this change in policy may be addressed concurrently with the processing of a wind energy application. This revised policy will continue to provide protection of sensitive resource values in ACECs consistent with the management prescriptions for the individual ACEC.

We believe the following areas identified as Initial Avoidance Areas and Exclusion Areas do not necessarily preclude wind development:

1. BLM Avoidance Areas: BLM land use plans may identify right - of - way avoidance areas or exclusion areas under the BLM land use planning guidelines (see Appendix C of the BLM Land Use Planning Handbook H - 1601 - 1). Avoidance areas, as defined by the land use planning guidelines, do not preclude the issuance of rights - of - way for wind energy site testing and monitoring activities or wind energy development or preclude the issuance of permits, leases, or easements under Section 302 of the Federal Land Policy and Management Act (FLPMA). These uses in avoidance areas may be available with special stipulations or mitigation measures. For such authorizations, the area's environmental sensitivity and other feasible alternatives will be strongly considered.

2. Visual Resource Management (VRM) classes: VRM Class I and II, the Initial Avoidance Areas needs to be amended to conform to BLM Instruction Memorandum No. 2009 - 043, which states: The VRM management classes are not intended to be used to exclude or preclude land uses, including opportunities for development of wind energy in areas with high wind energy resource potential.

3. OHV Open Areas: OHV Open Access areas should not be excluded or avoided.

4. BLM Wilderness Study Areas (WSAs): Horizon suggests that WSAs be moved to the List of “Initial Avoidance” Areas to allow for the possible future evaluation of these areas. Currently, a WSA does not preclude an area from all development. Oil and gas development, for example, are currently allowed in a WSA. If national policy aligned renewable energy with other types of development as public lands priorities (such as oil and gas, mineral rights, and livestock grazing), then renewable energy could in the future be allowed in a WSA.

By moving the WSAs to the List of “Initial Avoidance” Areas, if a WSA was found to be a critical path option for WREZ, the WSA could be submitted to the BLM in support of making the policy change.

Brendan Hughes

I suggest that the WGA site renewables on previously disturbed lands. These include former agricultural and mining lands. These areas are already near roads and transmission lines, and they do not have to go through the tremendous environmental hurdles that projects on public land need to go through. Also, know that the environmental community in California and elsewhere will vigorously fight any proposals for projects placed on undisturbed lands, even if that area could be developed legally. Additionally, rooftop solar placed in urban areas is a viable alternative to large, remote power projects. With rooftop solar, there is no need to go through an extensive permitting process or to build transmission lines hundreds of miles through pristine areas. It is a win-win situation, and the energy companies can still make money by owning the panels.

Invenergy Wind Development LLC

Karyn Coppinger

Preliminary WREZ are located on land controlled by BLM. BLM’s time lines for processing wind energy ROW applications is unacceptably long. In some areas it is taking over six months to obtain a ROW for Site Testing and Monitoring (i.e., just to erect meteorological towers), and a ROW for a project may be subject to 2- and 3-year NEPA analyses (even though BLM has a Programmatic EIS on wind energy development). Working with BLM presents risk to Independent Power Producers in terms of timing and the certainty that a renewable project might not be able to meet its contractual power delivery time lines. The lands committee should consider the presence of BLM land as a constraint for renewable energy development and should recommend methods for stream-lining the BLM’s application processing procedures. Similarly,

the WREZ study should look at special management areas such as VRM II areas and ACECs as it is difficult to develop projects in these areas.

Much of the solar WREZ area in California appear to overlap with Designated Wildlife Management Areas which limit ground disturbance to 1% of the land area. The presence of WMAs essentially eliminates the ability to build solar projects, and the WREZ study should include this limitation as a criteria for designating WREZ.

Similarly, greater-sage grouse has become a huge issue in sage brush habitats throughout the west, and the delineation of WREZ should take into consideration work that has been done to define core greater sage-grouse habitat.

Larimer County Natural Resource Department
Jeffrey Boring

ATTACHMENTS

A large area in north-central Colorado and south-central Wyoming, known as the Laramie Foothills Mountains to Plains, should be categorized under the Qualified Resource Areas as Exclusion Areas and/or Avoidance Areas. See [map illustrating the location and extent of the Laramie Foothills Mountains to Plains](#). The Laramie Foothills Mountains to Plains project is a landscape-scale conservation project that has protected over 55,000 acres of land in this area and has included over \$25 million in fee simple and conservation easement acquisitions by local governments, the State of Colorado and non-profit organizations.

The area composing the Laramie Foothills Mountains to Plains harbors a diverse assemblage of globally and state-rare plants, high-quality native plant communities, state-listed rare fish, healthy populations of mountain lion, black bear, elk, pronghorn, mule deer, and declining grassland birds. The area also includes significant riparian habitat that supports Preble's meadow jumping mouse, a federally-listed threatened species.

[A map identifying the properties in this project area that are protected by a conservation easement, and therefore are not eligible for renewable energy development is attached](#). These areas include Red Mountain Open Space, parts of Soapstone Prairie Natural Area and other eased lands. These areas qualify as Exclusion Areas and should be included on all products listing or highlighting Exclusion Areas related to this project. This map also displays additional areas that provide excellent and irreplaceable wildlife habitat and where mitigation may not be feasible or effective. These additional areas are protected by local governments and non-profit organizations as fee simple lands, but no additional statute, regulation or legal instrument exists to advance their level of protection. These areas qualify as Avoidance Areas and should be included on all products listing or highlighting Avoidance Areas related to this project. GIS shapefiles locating all protected areas within the Laramie Foothills Mountains to Plains can be provided by Larimer County Natural Resource Department staff upon request (see contact information below).

The following table lists the plants, animals and plant communities of concern located in the Laramie Foothills Mountains to Plains.

Common Name	Scientific Name	G-rank	S-rank
Birds			
McCown's Longspur	<i>Calcarius mccownii</i>	G5	S2B
Mammals			
Black-tailed prairie dog	<i>Cynomys ludovicianus</i>	G4	S4
Plants			
Bell's twinpod	<i>Physaria bellii</i>	G2	S2
Upland Plant Communities			
Western wheatgrass-Blue grama grassland	<i>Pascopyrum smithii-Bouteloua gracilis</i>	G5	S4
Mountain mahogany/Needle-and-thread foothills shrubland	<i>Cercocarpus montanus/Stipa comata</i>	G2	S2
Mountain mahogany foothills shrubland	<i>Cercocarpus montanus/Elymus lanceolatus x Pseudoroegneria spicata</i>	GU	S3
Mountain mahogany/New Mexico feathergrass foothills shrubland	<i>Cercocarpus montanus/Stipa neomexicana</i>	G2G3	S2S3
Mountain mahogany/Scribner's needlegrass foothills shrubland	<i>Cercocarpus montanus/Stipa scribneri</i>	G3	S3
Mountain mahogany/Griffith's wheatgrass	<i>Cercocarpus montanus/Pseudoroegneria spicata</i>	G4	S3
Mountain mahogany/Mountain muhly shrubland	<i>Cercocarpus montanus/Muhlenbergia montana</i>	G2	S3
Shale barren mountain mahogany	<i>Cercocarpus montanus</i> barrens (to be described)	GU	SU
Four-wing saltbush/Blue grama	<i>Atriplex canescens/Bouteloua gracilis</i>	G3	S3
Ponderosa pine/Spike fescue	<i>Pinus ponderosa/Leucopoa kingii</i>	G3	S3
Wetland Plant Communities			
Nebraska sedge wet meadow	<i>Carex nebrascensis</i>	G4	S3
Analogous sedge wet meadow	<i>Carex simulata</i>	G4	S3

Brookgrass-monkeyflower spring wetland	<i>Catabrosa aquatica-Mimulus spp.</i>	GU	S3
Beaked sedge wet meadow	<i>Carex utriculata</i>	G5	S4
Riparian Plant Communities			
Skunkbrush riparian shrubland	<i>Rhus trilobata</i>	G2	S2
Narrowleaf cottonwood/Bluestem willow riparian woodland	<i>Populus angustifolia/Salix irrorata</i>	G2	S2
Narrowleaf cottonwood/Chokecherry	<i>Populus angustifolia/Prunus virginiana</i>	G1Q	S1

See also

[Map -- 1 LFMTTP Wind QRAs 11x17.pdf](#)

[Map -- 2 SPNA RomanParcelspdf.pdf](#)

Montana Department of Environmental Quality

A transmission line that is proposed to be built in Montana that is defined as a ‘facility’ (generally greater than 69 kV and 10 miles long) must apply for a Certificate of Compliance under the Montana Major Facility Siting Act (MFSA). A person may not commence to construct a facility in the state without first applying for and obtaining a certificate of compliance issued with respect to the facility by the department. Commence to construct includes any clearing or excavation as well as the start of eminent domain proceedings. In order to obtain a certificate of compliance, the project sponsor must submit an application containing the information required by the Administrative Rules of Montana and in Circular MFSA-2 and the Department of Environmental Quality must make the findings specified in Montana’s Major Facility Siting Act (75-20-301 and 302, MCA). Circular MFSA-2 can be found at <http://www.deq.mt.gov/MFS/LawRules/Circular2.pdf>. Links to the Major Facility Siting Act, Circular 2 and Administrative Rules of Montana pertaining to transmission line siting can be found at the Montana MFSA home page at <http://www.deq.mt.gov/MFS/>

Circular MFSA-2 describes the application requirements pertaining to the alternative siting study, baseline study, and impact assessment of linear facilities (including transmission lines). Circular MFSA-2 contains a list of avoidance areas for transmission lines along with the preferred location criteria. The avoidance areas under Circular MFSA-2 are not the same as the ‘exclusion areas’ identified under WREZ. Also, the preferred location criteria under the Montana MFSA are different from the way in which WREZ selected its Qualified Resource Areas and the way in which WREZ is suggesting transmission line upgrades (and their respective costs). Therefore, some of the transmission lines that would be needed to connect Qualified Resource Areas to loads identified through the WREZ process may not meet the criteria established under Montana’s MFSA.

The list of avoidance areas for transmission lines along with the preferred location criteria in Circular MFSA-2 are as follows (<http://www.deq.mt.gov/MFS/LawRules/Circular2.pdf>):

SECTION 3.1, PREFERRED LOCATION CRITERIA

- (1) for electric transmission lines:
 - (a) where there is the greatest potential for general local acceptance of the facility;
 - (b) where they utilize or parallel existing utility and/or transportation corridors;
 - (c) to allow for selection of a location in nonresidential areas;
 - (d) on rangeland rather than cropland and on non-irrigated or flood irrigated land rather than mechanically irrigated land;
 - (e) in logged areas rather than undisturbed forest, in timbered areas;
 - (f) in geologically stable areas with non-erosive soils in flat or gently rolling terrain;
 - (g) in roaded areas where existing roads can be used for access to the facility during construction and maintenance;
 - (h) so that structures need not be located on a floodplain;
 - (i) where the facility will create the least visual impact;
 - (j) a safe distance from residences and other areas of human concentration;
 - (k) in accordance with applicable local, state, or federal management plans when public lands are crossed.

SECTION 3.2 DELINEATION OF THE STUDY AREA

- (d) For identification of study areas the following areas are to be avoided. If (i) or (ii) are crossed, the management agency or congress must approve it beforehand. If (iii) through (xi) are crossed, mitigating measures need to be identified.
 - (i) national wilderness areas;
 - (ii) national primitive areas;
 - (iii) national wildlife refuges and ranges;
 - (iv) state wildlife management areas and wildlife habitat protection areas;
 - (v) national parks and monuments;
 - (vi) state parks;
 - (vii) national recreation areas;
 - (viii) corridors of rivers in the national wild and scenic rivers system and rivers eligible for inclusion in the system;
 - (ix) roadless areas of 5,000 acres or greater in size, managed by federal or state agencies to retain their roadless character;
 - (x) rugged topography defined as areas with slopes greater than 30 percent; and
 - (xi) specially managed buffer areas surrounding national wilderness areas and national primitive areas.

SECTION 3.4 ENVIRONMENTAL INFORMATION FOR OVERVIEW SURVEY

When selecting alternative alignments the following areas are to be avoided. If they cannot be avoided, then mitigating measures must be identified.

- (b) state or federal waterfowl production areas;
- (c) national natural landmarks, natural areas, research natural areas, areas of critical environmental concern, special interest areas, research botanical areas, outstanding natural areas designated by the national park service, the USDA forest service, the bureau of land management, or the state of Montana;

- (d) designated critical habitat for state or federally listed threatened or endangered species;
- (e) habitats occupied at least seasonally by resident state or federally listed threatened and endangered species;
- (f) national historic landmarks, and national register historic districts and sites;
- (g) national register historic districts and sites nominated to or designated by SHPO (state historic preservation office);
- (h) municipal watersheds;
- (i) streams and rivers listed in Montana department of fish, wildlife and parks river database as being class I or II streams or rivers;
- (j) streams listed by the department pursuant to 75-5-702, MCA, that are not attaining designated beneficial uses of water;
- (k) highly erodible soils and areas with severe reclamation constraints, defined as soils developed on Cretaceous shales, intrusives and certain lacustrine deposits;
- (l) areas where the presence of the facility would be incompatible with published visual management plans or regulations designed to protect viewsheds adopted by federal, state, or local governments;
- (m) the winter distribution of elk, deer, moose, pronghorn, mountain goat and bighorn sheep and areas where they concentrate during severe winters, as identified by the Montana department of fish, wildlife and parks, the bureau of land management, and the USDA forest service;
- (n) major elk summer security areas which are any forested areas greater than 1/2 mile in minimum radius, more than 1/2 mile from an existing road, and identified through consultation with the Montana department of fish, wildlife and parks, the bureau of land management, and the USDA forest service as elk summer range;
- (o) habitats occupied at least seasonally by mountain sheep and mountain goats as identified through consultation with the Montana department of fish, wildlife and parks;
- (p) sage grouse and sharp-tailed grouse breeding areas, the winter distribution of sage grouse and sharp-tailed grouse, and areas where they concentrate during severe winters as designated by the Montana department of fish, wildlife and parks;
- (q) areas with high waterfowl population densities including prime waterfowl habitat that have been identified through consultation with the Montana department of fish, wildlife and parks and other areas identified by the Montana department of fish, wildlife and parks or US fish and wildlife service as waterfowl concentration areas or low-level feeding flight paths;
- (r) any undeveloped land or water areas that contain known natural features of unusual scientific, educational or recreational significance;
- (s) areas with geologic units or formations that show a high probability of including significant paleontological resources;
- (t) sites that have or may have religious or heritage significance and value to Indians;
- (u) standing water bodies, including any lake, wetland, marsh or reservoir; and intermittent water bodies and internally drained basins that reach a surface area of 20 acres or more at least one year out of ten;
- (v) surface supplies of potable water.

Comments on Generation and Transmission Modeling Work Group-Transmission Characteristics Sub-group

The Montana DEQ would like to present some general examples of costs of new transmission lines currently proposed to be constructed in Montana.

The Final Environmental Impact Statement for the Montana Alberta Tie Ltd. (MATL) 230-kV Transmission Line, (VOLUME 1, September 2008, United States Department of Energy State of Montana and Department of Environmental Quality) can be found at [http://www.deq.mt.gov/MFS/MATL/MATL_FEIS/Volume1MATL-FEIS\(Sept%202008\).pdf](http://www.deq.mt.gov/MFS/MATL/MATL_FEIS/Volume1MATL-FEIS(Sept%202008).pdf) . On page S-55 of that document are given the estimated costs for the selected alternative within the Montana portion of that line. For 129.9 miles of transmission line within Montana (56 miles monopoles, 74 miles H-frames), the estimated total construction cost with mitigating measures was \$44,769,832. Likely the cost is higher with recent increases in price. That does not include the financing costs of building the line, the operation and maintenance, nor the purchase of right-of-ways, etc., property taxes, nor annual payments.

The entire MATL line would include another 73 miles in Canada. All capital costs for the entire 203 mile long line were estimated by the project owners in 2007 at \$144 million (including the line, substations, a phase shifting transformer, and development costs. Operating and Maintenance costs plus property taxes were estimated at just over \$4 million annually (Letter from Bob Williams of MATL to Montana DEQ dated August 10, 2007).

A second transmission line being proposed in Montana and Idaho is called the Mountain State Transmission Intertie or MSTI for short. The estimated total construction costs from this 400 to 430 mile 500 kV line are just over \$1 billion dollars total (MSTI Application, Appendix A-1). The application also examined costs of alternative structure designs and voltage levels. The portion of the application that provides information on the costs of various alternatives can be viewed at http://deq.mt.gov/MFS/MSTI/VOLUME_IVA/Chapter%2010.pdf

National Trust for Historic Preservation

Barbara Pahl

I. The ELWG Should Obtain Cultural Resource Data from Individuals, Agencies, and Organizations with Expertise in Cultural Resources.

The National Trust feels strongly that soliciting cultural resource data from a variety of federal and state agency representatives, tribes, and non-governmental organizations in the same way that wildlife stakeholders were invited to contribute would greatly benefit WREZ. These individuals and groups can provide ELWG with the legal descriptions of areas designated for the purpose of protecting cultural resources (e.g., National Monuments, National Heritage Areas, National Historic Trails, and Traditional Cultural Properties) that WREZ should consider including in the list of Exclude, Initial Avoidance, and High Sensitivity areas. Using a geographic information system format, these cultural resource individuals and groups also can provide ELWG with information concerning other areas that contain significant concentrations of cultural sites, without necessarily sharing the exact locations of individual sites.

Individuals and groups from which cultural resource data should be requested include, but are not limited to, the following: State Historic Preservation Officers; state archaeologists; Tribal

Historic Preservation Officers; directors of tribal historic preservation offices; Bureau of Land Management (BLM), U.S. Forest Service (USFS), and National Park Service regional office archaeologists and managers; the National Trust; Society for American Archaeology; Society for Historical Archaeology; Society of Architectural Historians; Archaeological Conservancy; Crow Canyon Archaeological Association; Colorado Plateau Archaeological Alliance; Center for Desert Archaeology; Dominguez Archaeological Research Group; Arizona Archaeological Council; New Mexico Archaeological Council; Colorado Council of Professional Archaeologists; Utah Professional Archaeological Council; Nevada Archaeological Association; Society for California Archaeology; Wyoming Archaeological Society; Oregon Archaeological Society; Association for Washington Archaeology; Idaho Archaeological Society; Montana Archaeological Society; Alliance of National Heritage Areas; Sonoran Institute; and Partnership for the National Trails System.

II. The ELWG Should Include Areas Designated or Identified for the Purpose of Protecting Significant Cultural Resources in the Exclude, Initial Avoidance, and High Sensitivity Area Categories.

The National Trust feels that ELWG should add the following areas designated or identified for the purpose of protecting significant cultural resources to the Exclude, Initial Avoidance, and High Sensitivity area categories:

Exclude: (with viewshed buffers, as appropriate)

- * National Monuments where a statute, proclamation, or regulation precludes development.

Avoid: (with viewshed buffers, as appropriate)

- * USFS Archaeological Areas;

- * National Monuments where a statute, proclamation, or regulation does not preclude development;

- * National Historic Landmarks and Landmark Districts;

- * National Historic Districts and Archaeological Districts eligible for or listed in the National Register of Historic Places;

- * National Historic Sites;

- * National Heritage Areas;

- * Sacred sites identified by an Indian tribe in accordance with Executive Order 13007;

- * Traditional Cultural Properties eligible for or listed in the National Register of Historic Places or an equivalent state register;

- * High potential route segments and high potential historic sites of National Historic Trails;

- * National Scenic Byways;

- * Areas designated as “Very Rare and Uncommon” by the Wyoming Environmental Quality Council; and

- * Areas designated by Congress for the purpose of protecting cultural resources (e.g., the Galisteo Basin of New Mexico through the Galisteo Basin Archaeological Sites Protection Act of 2004).

High Sensitivity: (with viewshed buffers, as appropriate)

* Areas identified by individuals, agencies, or organizations with expertise in cultural resources as containing “significant” concentrations of known archaeological sites. The following factors should be taken into account when determining whether an area contains a “significant” concentration of sites: site density, type and time period, and surrounding topography and environment.

III. Conclusion

Historic and prehistoric sites and Traditional Cultural Properties are irreplaceable elements of our personal and collective connections with the past, our ancestors, and the land on which we live. Accordingly, the National Trust believes that WREZ should make every effort to identify and plan for the protection of significant cultural resources prior to identifying areas for renewable energy development.

NRDC

Johanna Wald

NRDC submits these additional comments that pertain to issues not discussed in a separate, joint letter submitted by The Wilderness Society, Western Resource Advocates, and other organizations. The first section of the letter relates directly to content of the WREZ; the second section of the letter contains an offer to integrate NRDC’s land and resource mapping project for the remainder of the WREZ process.

NRDC appreciates and commends the hard work of the many participants who have moved the Western Renewable Energy Zones project forward. The Governors deserve recognition and respect for their interest in sharply increasing the West’s renewable energy production in accordance with the 2006 Clean and Diversified Energy Project report and the associated Governors’ policy resolution. The West abounds with renewable energy potential and can lead the nation and potentially the world in bringing renewable energy to market.

SECTION 1 – The WREZ Process and Comments

General Comments

We are providing several general comments that do not fit within the single categories that WGA has offered for public response.

Market-based, market-tested analysis. Although the general purpose of the WREX process is to identify renewable energy zones for future development, the process is criticized by a number of observers who point out that wind resources now under option or in development (for instance in New Mexico) fall outside the WREZ-identified zones. Looking for large amounts of wind, solar or geothermal energy far distant from load centers might not be as useful as looking for numerous smaller pockets of such resources closer to market. Some of the parameters of the WREZ process seem to prefer longer-distance, larger-yield generation and transmission. This may set a precedent for federal decisionmaking that will overlook important, available, sufficient, affordable, lower-impact resources that might deserve as much renewable

development/transmission streamlining and financial preference as the large, distant resources identified in WREZ. We are hopeful that the process will move forward in stages that are better tested for actual market and development conditions.

Climate and efficiency. Besides the relevant commitments to transmission review and development, in 2006 the CDEAC and the WGA also committed to policies that will slow, stop, and reverse greenhouse gas emissions trends in the region. The WGA climate resolution (06-03) recognizes the impact of climate change on the West, calls for the Western Governors to cooperate in projects that help reduce emissions, and states that the development of clean energy and energy efficiency will be economically beneficial for the West. (Although the CDEAC mostly focused on clean energy and energy efficiency, and did not treat climate change as a goal, it recommended coal policies that suggested specific strategies to support near-zero emission advanced coal development.) Seven western governors have also committed to the Western Climate Initiative, which, like state-level efforts in many western states, could seriously limit carbon emissions and encourage energy efficiency reducing transmission demand.

These efficiency and climate commitments could be better contained in the general supply-side approach of the WREZ (although notably and commendably the January 28 WREZ TEPPC study request does include a variety of climate and efficiency options). The focus on “environment and lands” issues appears to have been on exclusion areas and initial avoidance areas. These are very important and should be accompanied by a robust dialogue on other critical environmental issues, such as carbon emissions and efficiency – both of which could dramatically affect the number, size and type of needed transmission improvements in the West. Additionally the WREZ process should consider climate and efficiency options as integral to achieving the right overall balance of renewable energy development in the WECC.

Several of the highest-profile long-distance transmission proposals in the West, put forward by syndicates of LSE’s and labeled as projects enabling renewable energy transmission, include significant amounts of conventional coal backup. Other proposals do not. The WREZ process should recognize that expanding the development and use of renewable energy is a needed step, but one that must, over time, be accompanied by efforts to reduce high-emitting generation. This is fundamental. Transmission proposals that enable a significant increase in conventional coal generation, through new capacity builds and increased dispatch of existing units, can increase the carbon impact of power production for decades to come. This could also further expand the scope of future investments needed to access the renewable sources that will meet carbon reduction goals as the amount of low carbon power needed to meet abatement goals grows and as the increased emissions from new conventional coal put upward pressure on carbon market prices moving forward.

The study cases presented by WREZ to TEPPC in January 1[1] distill some of the WREZ managers’ expectations regarding the WREZ process. The requests generally refer to higher efficiency and carbon-constrained options. They also mention different levels of carbon pricing. However, price may not be the only constraint. Washington and California have adopted greenhouse gas performance standards affecting the carbon content of new energy acquisitions and transmission. Similar policy at the state and federal level could likewise prevent wider distribution of conventional coal energy. The WREZ process models different potential carbon

prices, but does not appear to consider an option such as a greenhouse gas performance standard that would disallow sales and contracts for high-emitting resources. (Notably a greenhouse gas performance standard does not attempt to eliminate transmission of electrons produced by high-emitting generation; instead it affects the allocation of transmission capacity by sales.)

Additionally, the WREZ process would benefit from a thorough discussion of the economics and issues related to backing significant new regional renewable energy transmission with coal vs. gas or geothermal. We realize that carbon constraints may be coming in some form or another; the analysis suggested to TEPPC seems to indicate this; the WREZ process should also indicate different ways that this might be achieved. In summary the WREZ process should not be about bringing new renewables to market unless it does so in a way that achieves long-term carbon emissions reduction goals.

Merchant vs. utility transmission proposals. Consideration of non-LSE, merchant generation and transmission concepts, shown as a real-world possibility by specific proposals that have entered into permitting, seems to be lacking. Several merchant wind transmission projects in various stages of development in the southwest could result in significant delivery of low-emitting resources, relatively quickly and affordably, without high-emitting resources. In contrast, larger long-line proposals put forward by the LSE's are generally associated with significant amounts of conventional coal generation and transmission. (An example: the June 2008 High Plains Express phase I feasibility study of High Plains Express found that the preferred generation blend would include about 25% coal generation, which could amount to several thousand megawatts in due time. Shorter lines crossing fewer states, such as SunZia, could carry similar amounts of wind at full buildout, without the conventional coal. Yet because SunZia is effectively a merchant line, the basic assumptions underlying its market-based appearance on the western transmission scene appear to be relatively understudied in the WREZ process). The WREZ January 28 TEPPC study request says:

A key long-run objective is to avoid the prospect of building multiple lower capacity transmission lines across multiple right-of-ways to carry power that could be delivered by a higher capacity transmission line on a single right-of-way.

As applied to regional transmission demand, this is inaccurate. A single new right-of-way can connect one state to another. A second new right-of-way can later connect a third state's renewable energy to the previous two. In other words, sequenced and staged development of multiple lower-capacity lines and multiple rights-of-way could actually present the most economic, the fastest, and the lowest-impact transmission development scenario. (And eventually, these smaller lines connect to become "a higher capacity transmission line on a single right-of-way.") This is not to endorse the status quo situation in transmission planning but instead to suggest that smaller, sequential development, oriented to demand, might prove sensible. A serious regional, interconnection-wide planning effort involving all stakeholders and considering multiple issues, not just economic cost and size of resource, would be a good idea. It would be valuable for the WREZ to consider phasing of demands and transmission growth to include these shorter, merchant-initiated transmission projects rather than focusing so heavily on large regional lines from the beginning.

Zone Identification and Technical Analysis (ZITA)

The tasks assigned to the ZITA [1) “areas in the West with the best and most concentrated renewable energy resources” and 2) technology-specific information to determine costs of renewable resources from identified areas] underplay several important issues. First, cost of moving renewables can be lowered by inclusion of high-emitting resources in some cases. In fact, inclusion of high-emitting resources may be the only way to justify moving renewables over long distances rather than choosing renewables nearer load centers that don’t have high-emitting resources as backup. Second, the distance that these concentrated resources may lie away from load centers is significant. Developing the resources themselves may be affordable at a distance, but the transmission distance may be significantly longer. The ZITA goals aren’t clear about whether the ZITA is looking at the costs of renewables where they may be consumed, or at the site of development.

At WREZ/ZITA/Step2.pdf, “(t)he underlying assumption...is that higher-class wind and solar are more economical to develop and will be developed first.” This is true as far as it goes, but depends on the function of distance, the costs of transmission, and a variety of factors in siting, environmental impact, efficiency and renewable portfolio-type screens at the load centers, carbon costs or prohibitions for associated conventional resource generations and transmission, and community acceptance.

Under Task 1, the ZITA work group identified renewables zones “that are large enough and contain sufficient resources to warrant the investment that will be required for large-scale transmission projects.” The term “large-scale” isn’t defined for readers who weren’t involved in ZITA – this could mean large DC lines, lines over 500 kv, etc. This sort of screen prefers giant renewables centers regardless of distance from load, whereas sequential access by smaller lines to closer, smaller renewables zones could actually bring renewables to markets faster and less controversially. The Western Climate Initiative states within the WGA – which comprise most of the region’s electricity consumption – are committed to significant energy efficiency programs. If these programs succeed, the load growth in these centers will be minimal. Renewables will play an important part in reducing dependence on high-emitting conventional coal in these states, and will be needed as plug-in vehicle transportation penetrates western markets. But it would be unreasonable to assume that this means western markets will demand hundreds of thousands of megawatts of energy from the “best and most concentrated renewable energy resources” in the West, which also happen to be the most distant from large southwestern and West Coast markets. This is especially true when existing feasibility analyses for specific transmission project proposals already in play indicate that the economics of these large regional transmission lines accessing these “best and most concentrated” renewable resources are backed by conventional coal in the preferred economic scenarios.

Much of the resource in these “best and most concentrated” areas of wind energy may be accessed only with severe limitations. The Montana Nature Conservancy recently issued a study indicating that almost 8 million acres, or about 40%, of the state’s bountiful wind energy is available in places that are critically important to 30 species of Montana wildlife. Although the Environment and Lands work group has indicated some exclusion areas, it certainly has not been able to identify these local wildlife habitat conflicts in detail. Avoiding national parks or Wilderness areas is obvious as development in these zones would be illegal. Making the call on

wildlife and habitat conflicts and recreational issues is far more difficult (as noted, the maps “do not include information on wildlife sensitivity”). Further, since accessing these “best and most concentrated” resources requires much longer-distance and potentially higher-voltage transmission, there are likely to be more transmission land and wildlife impacts. And because the proponents of specific projects from these “best and most concentrated” areas have already indicated that the economics of transmission development into these zones prefer at least 25% conventional coal transmission, the impacts of extended conventional coal generation should also be considered as corollary impacts of identifying the zones of the “best and most concentrated” renewable energy potential in the region.

Thus the ZITA group’s findings may indicate huge resource potential in some areas that simply are too far away from markets, that would require too much conventional coal transmission as part of their economic justification, and that carry primary and secondary generation and transmission impacts that will not be identified in the WREZ process, despite the good work of the Environment and Land group. We appreciate that there will be an opportunity to comment on the narrowing of QRA’s to REZ’s in late spring.

Generation and Transmission Modeling (GTM)

This area was very difficult to understand. The Powerpoint presentations provide little context, no general descriptions, discussion or conclusions. There is little linkage to on-the-ground implications of the modeling – where is renewable energy needed? What are the most significant and/or expensive transmission congestion points, bottlenecks, and opportunities? From some of the content in this section, it appears that the eventual product will include this kind of information, but reviewing it now is difficult.

The WREZ segments list was unexplained. Distances are not provided. Yellow highlighting was not explained. Size of corridors is not defined.

(http://www.westgov.org/wga/initiatives/wrez/gtm/documents/WREZ_SEGMENTS_112208.xls) Similarly the powerpoint on the modeling tool was difficult to understand and would have benefited from some basic explanation and notes (some questions: What are the numerals 1,2,3 and 4 meant to depict on slides 8-9 of GTM Methodology? What are the generation profiles on slide 10?)

SECTION 2 – Mapping and information support

The Western United States hold significant sources of renewable energy which the states and the nation need to develop in order to solve global warming. The West too is home to unique and sensitive resources – remarkable wilderness and stunning landscapes, diverse wildlife, fragile ecosystems and irreplaceable cultural resources. Development and delivery of renewable power must be done in a way that does the least damage to these resources and must acknowledge that not all places, particularly on the public lands, are appropriate for these activities. And, of course, development must take place in a responsible manner.

The Western Governors’ Association (WGA) Western Renewable Energy Zones (WREZ) initiative is a very important process for facilitating responsible renewable energy and

transmission development, and we support the goals of this initiative. NRDC is pleased to have the opportunity to provide input into the WREZ process and to help ensure that its final products are as helpful as possible in protecting lands, wildlife, and other resources while facilitating renewable energy development.

For some time, NRDC has been in the process of developing a Google Earth map for use by government agencies, citizens, utilities, generators, transmission proponents, and others in identifying places where renewable energy and transmission development is not appropriate. While we have not yet made this map public, our website will be launched later this month and the WGA can access our map at the following link:

http://www2.nrdc.org/googleearth/ConsSolRenewUSWest_GE_NRDC/Conservation_Solutions_for_Renewables_US_West_NRDC.kml

In addition, we will supply you with our original, raw GIS data for your use in April.

Our map consists of geographic data compiled for 19 types of sensitive areas across 13 western states. Our data have been merged into three categories of land: where energy development is prohibited, restricted or should be avoided. These categories are summarized immediately below. We hasten to add that our map is not meant to suggest that excluded areas or lands are good candidates for siting energy and transmission projects. NRDC has only identified the most well-known sensitive lands and additional information, especially from state fish and game departments, will be needed to identify all inappropriate lands as well as those that are appropriate. Knowing where the most sensitive lands are is the first step towards ensuring that the new developments – both generation and transmission – that we need to meet the climate challenge are built in the right places and in the right ways.

Category I. Energy Development Prohibited by Law or Policy on these Federal Lands

- * Units of the National Park System – The National Park System includes, in addition to national parks, national monuments and national preserves managed by the National Park Service as well as national recreation areas and national historic parks. These units of the system have been designated by Congress to conserve outstanding resources – both natural and historic – of importance to the nation. The Park Service’s management of these units must preserve the values for which each was designated from degradation for the enjoyment of present and future generations.

- * National Wildlife Refuges – The U.S. Fish and Wildlife Service (FWS) manages the National Wildlife Refuge System. The system includes National Wildlife Refuges and Wildlife Management Areas. These areas were established to maintain the biological integrity, diversity, and environmental health of the refuge system and to facilitate compatible wildlife-dependent recreation and only uses which are compatible with those purposes are allowed.

- * Designated Wilderness Areas – All of our major federal land systems – national parks, wildlife refuges, national forests and lands managed by the Bureau of Land Management (BLM), an agency in the Interior Department – include lands designated by Congress as Wilderness Areas. Part of the National Wilderness Preservation System, these areas have no roads and the “hand of man” is not visible within their borders. Their values of solitude, natural quiet and “wildness” as well as their scenic values and the opportunities they provide for non-motorized recreation are all intended to be preserved forever. In general, roads, motorized vehicles and machines, including power tools, are prohibited.

* Inventoried Roadless Areas – These areas were identified by the U.S. Forest Service to preserve the remaining roadless areas on our National Forests and the ecological services and social values that are associated with those areas. In general, road construction and logging are prohibited.

* Wilderness Study Areas (WSAs) – Designated by the BLM, these areas qualify for congressional designation as Wilderness Areas. (See “Designated Wilderness Areas” above.) Their values of solitude, natural quiet, and “wildness” as well as their non-motorized recreation opportunities and scenery must be preserved until Congress determines otherwise. As in Wilderness Areas, roads, vehicles and machines, including power tools, are generally prohibited.

* BLM National Conservation Areas – These areas were designated by Congress to protect and preserve the unique, sensitive and/or important natural and historic resources of each, such as scenery, habitat for significant numbers of endemic plant and animal species and/or archeological values. They include California’s King Range National Conservation Area, Nevada’s Red Rock Canyon National Conservation Area, and New Mexico’s El Malpais National Conservation Area.

* BLM National Monuments – While most national monuments are managed by the National Park Service, some are found on BLM lands. At least one is found on Forest Service lands. Established by presidents to protect unique, sensitive and/or important natural and historic resources, such as scenery, habitat for significant numbers of endemic plant and animal species and archeological values, the management of these areas is governed by the presidential proclamations which designated them and which generally direct that their special resources be preserved. Examples include the Giant Sequoia National Monument in California’s Sequoia National Forest and Arizona’s Ironwood Forest National Monument on BLM-managed land in Arizona.

* National historic and scenic trails – These areas are designated by Congress and are included in the National Trails System. National scenic trails are long-distance (over 100 miles each), while national historic trails commemorate major, nationally significant routes of historic (and pre-historic) travel in the US. Both must provide for significant outdoor recreation.

* National wild, scenic and recreational rivers – Designated by Congress, these are free flowing streams that are mostly inaccessible, scenic and primitive, and that possess “outstandingly remarkable values” such as scenery, recreational resources, fish and wildlife, and historic values.

* USFS national recreation areas – Here NRDC includes National Recreation Areas other than those managed by the National Park Service.

Category II. Energy Development Restricted by Applicable Land Use and Other Plans for Federal Lands

* BLM Areas of Critical Environmental Concern (ACECs)– These areas have been designated by BLM to protect and prevent irreparable damage to “important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards” pursuant to statutory authority given the agency in 1976. Designation typically takes place during the land use planning process for a larger BLM-administered area and involves environmental review and public participation. In California, the BLM has designated 145 ACECs on the 15.2 million acres it administers in that state.

* Designated critical habitats for federally listed endangered and threatened species – Species are placed on the federal list by the FWS following its determination that they are either in danger of extinction throughout all or a portion of their ranges (“endangered”) or likely to become endangered in the foreseeable future (“threatened”) according to specific congressional and

regulatory criteria including impacts to habitat, overuse by humans, and disease or predation. Generally, Congress intended for critical habitat to be proposed at the same time as the listing of a species was proposed and to be designated at the time of listing, if its critical habitat was determinable and prudent; if not determinable at the time of listing, the FWS can propose and designate critical habitat at a later date. A proposed designation involves review and comment by the public, state and local governments and others. Areas can be excluded from final designation as critical habitat, which is defined as the area “essential to the conservation of the species,” for economic and other reasons, if the exclusion will not jeopardize the continued existence of the species.

Category III: Energy Development Should be Avoided in these Federal and Non-Federal Lands

- * Proposed wilderness lands – numerous areas on federal lands have been identified as suitable for congressional designation as Wilderness Areas by citizens as well as by land management agencies. Many of these proposals have been forwarded to Congress and are awaiting passage, such as America’s Red Rock Wilderness Act, which would designate more than 9.5 million acres of public lands in southern Utah as wilderness. Still others have not yet had the opportunity to be considered by Congress. Because these special places meet the criteria for wilderness protection, development on these lands should be avoided to the maximum extent possible.

- * State parks – State parks are diverse and important assets for state residents and residents of other parts of the nation and the world. Most states protect these areas, including by state laws that prohibit commercial exploitation of their resources.

- * State Wilderness Areas – Numerous states have officially designated their own wilderness areas in recognition of the importance of such areas and the need for their permanent protection. Typically, the state definitions of “wilderness” are similar to the congressional definition.

- * State wildlife areas and ecological reserves – States like California have established areas managed by their fish and game departments for protection of their wildlife values. In general, energy development is not allowed on these lands. (Our map currently includes only such lands in California but NRDC will add such information for other states as we acquire the data).

As noted above, identification of areas which are not appropriate for development is the first step toward identifying areas that are appropriate. The latter include those that have already been disturbed or degraded and that are close to existing transmission and load centers. Focusing on such areas will minimize controversy and attendant delay, and thus facilitate responsible production and delivery of renewable energy.

1[1] NOTE: The WREZ/WGA TEPPC request preceded completion of the WREZ process, and preceded even the completion of the public comment period. In this sense, because of TEPPC’s annual cycle, the WREZ study request may have jumped the gun. NRDC requests that concerns about climate and efficiency issues and effects on modeling would be considered as the TEPPC study process is refined through this calendar year.

The Nature Conservancy

Michael Powelson/Joe Kiesecker

Thank you for the opportunity to comment on the Western Governor’s Association (WGA) Western Renewable Energy Zones (WREZ) Qualified Resource Area (QRA) maps and data. The WREZ process and the associated QRA maps and data represent a significant amount of work by the WGA and are representative of the WGA’s commitment to supporting renewable energy

development while protecting important ecological resources. The significant needs and breadth of renewable energy across the west, coupled with the increasing impacts being seen from climate change as a byproduct of our use of fossil fuels, calls for a comprehensive approach in development of our renewable energy resources, and we applaud the WGA on its efforts.

The Nature Conservancy is dedicated to preserving the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters these species and communities need to survive. The Conservancy has nearly one million members and over 1,900 corporate sponsors. We currently have programs in all 50 states and in 27 other countries. To date our organization has protected more than 14.5 million acres in the United States and more than 101 million acres in other countries through local partner organizations. The Conservancy manages more than 1,400 private preserves in the United States – the largest private system of nature sanctuaries in the world. Our conservation work is grounded in sound science, strong partnerships with other private and public landowners, and tangible results at local places.

Working with partners to take a science-based approach to conservation planning, the Conservancy has completed assessments of the biological resources for all ecoregions in the western US, western Canada and the Baja California peninsula. Ecoregional planning is a methodical and comprehensive process for identifying a set of places or areas that, together, represent the best opportunity for conserving the majority of species, natural communities, and ecological systems found within a particular ecoregion. The key feature of ecoregional-based conservation is the clear articulation of a biodiversity vision that incorporates the full range of biological features, how they are currently distributed, and what minimum needs each feature has to maintain long-term persistence. An ecoregional portfolio, the end product of ecoregional planning, is a selected set of priority areas that represents the full distribution and diversity of these systems.

The creation of a vision and the implementation of an ecoregional plan depend on the active involvement of all levels of government, experts of many disciplines, local stakeholders and NGOs, and the general public who live and work within the ecoregion. Ecoregional assessments in the western US have engaged and received input from state wildlife agencies, local, national and international conservation organizations, federal natural resource agencies (i.e. BLM, DOD, DOE, USFS, USFWS), local governments and private landowners.

The Nature Conservancy has previously provided its ecoregional portfolio to the WGA for those areas under consideration by the WREZ process, and welcomes and invites questions from the WGA on its development and use. It is important to note that the portfolio represents the minimum needed to conserve biodiversity, and thus is a very conservative estimate of the extent of habitat required to ensure persistence over time. The western US is undergoing significant change from energy development, urbanization, population growth – and most importantly, from the impacts of climate change. These changes demand dramatic conservation actions to be taken at a landscape scale.

Given the comprehensive and collaborative nature in which this portfolio of conservation areas is designed, and that it represents the minimum needed to conserve biodiversity, we recommend the inclusion of the entire portfolio in the list of WGA WREZ Initial Avoidance Areas. We

strongly believe that this provides the best opportunity to conserve biodiversity in the near term, while allowing significant development of renewable energy resources. Further, given that US DOE estimates suggest an additional 12,000 miles of transmission lines will be needed nationally to support renewable energy development, we also recommend that the WGA include the needs for new transmission in the development of WREZ, and consider the Initial Avoidance Areas when planning for and siting of transmission lines and its associated infrastructure to support Renewable Energy Zones.

The sum of the renewable energy potential, across the purview of the WGA graphically represented by the WGA QRA, represents roughly 83 million acres, of which approximately 28 million acres intersects with the Conservancy's ecoregional portfolio. This would still provide a substantial land base and ample opportunity (~55 million acres) to design, configure and site renewable energy development while avoiding impacts to high priority conservation areas. Consider that, based on the US Department of Energy's (DOE) goal of generating 20% of our nation's power from renewable energy sources by 2030, that approximately 12 million acres of wind energy are projected to be required for the entire United States, far less than what is available for development under the avoidance strategy we are recommending.

Additionally, responses to climate change to protect our natural resources will require both mitigation and adaptation efforts, and renewable energy serves as one of the leading climate change mitigation strategies. Key adaptation strategies will likely involve increasing and buffering conservation areas beyond what we are recommending. We emphasize the need to site renewable energy development in a manner that is consistent with the needs to buffer conservation areas so that the benefits of climate mitigation from renewable energy development can be fully realized. We also urge the WGA to consider advocating the necessity of appropriate mitigation where impacts to conservation areas cannot be avoided. Despite the best attempts to avoid these and other sensitive areas, in light of the scale of anticipated development, impacts are likely to occur. These impacts should be offset, and require that compensatory mitigation be a key component of the permitting process.

The Nature Conservancy greatly appreciates the hard work of the WGA in their efforts to establish Western Renewable Energy Zones. We encourage the WGA, in the face of climate change and a changing environment to act boldly. The most important and effective method to protect the biodiversity and the ecological wealth that spans the western United States is for the WGA to include The Nature Conservancy and its partners' portfolio in the Initial Avoidance Areas of the Western Renewable Energy Zones.

National Wildlife Federation et. al.

Kathleen C. Zimmerman

As an organization, the National Wildlife Federation (NWF) represents the power and commitment of four million members and supporters joined by affiliated organizations in 47 states and territories and the District of Columbia. NWF and its affiliates have a long history of working to conserve the wildlife and wild places in the West. Many members of NWF and its affiliates use the lands and resources that will be impacted by utility-scale renewable energy

generation and transmission facilities. These comments are submitted by the National Wildlife Federation and its Rocky Mountain state affiliates, the Colorado Wildlife Federation, the Montana Wildlife Federation, the New Mexico Wildlife Federation, and the Wyoming Wildlife Federation (Wildlife Federations).

NWF recognizes that global warming poses an enormous threat to both the human environment and the earth's biologic diversity. For that reason, NWF has called for a rapid transition to energy sources other than fossil fuels that contribute to greenhouse gas (GHG) emissions and global warming. The generation of electricity via wind, solar, and geothermal is an important component of that transition. Without immediate and decisive steps to curb GHG emissions, the long-term survival of many wildlife species is in jeopardy.

The Western Governors' Association's (WGA) Western Renewable Energy Zones (WREZ) initiative could be an extremely important process for facilitating responsible renewable energy and transmission development. WREZ intends to "generate (1) reliable information for use by decision-makers that supports the cost-effective and environmentally sensitive renewable energy development in specified zones, and (2) conceptual transmission plans for delivering that energy to load centers."¹ The Wildlife Federations strongly support the goal of the WREZ to facilitate renewable energy development that conserves important fish and wildlife habitats as well as other resource values. We do not believe that goal has been furthered, however, by proposing renewable energy development areas or "Qualified Resource Areas" (QRAs) without any assessment of the potential impacts on fish and wildlife. Unfortunately, the maps now available for public comment provide no useful information on how to identify those areas of "low conflict" where the potential for renewable energy generation is high while the impacts to other important resources are low. Identifying those areas is the surest path to the rapid expansion of renewable energy resources.

Similarly, the current lists of "Exclusion" and "Avoidance" areas contain only those lands where there may be legal impediments to utility-scale renewable energy development. Sensitive wildlife habitats such as sage-grouse breeding areas and winter concentration areas²; raptor concentration areas; crucial winter ranges for big game; calving and fawning areas; and migration corridors are not yet included on these lists.³

Development of utility-scale renewable energy generation facilities will transform the lands upon which they are located. An inappropriately sited and constructed renewable energy facility has the potential to cause significant damage to the environment and to eliminate wildlife habitat. Accordingly, it is crucial that WGA commit to avoiding sensitive wildlife habitats in designating the final Renewable Energy Zones (REZs).

Development of renewable energy and transmission should be prioritized in already degraded areas which are close to existing infrastructure and have minimal environmental conflicts. Prioritizing development on these types of lands will conserve fish, wildlife and other natural resources. It will also facilitate faster permitting and development of renewable energy by reducing potential conflicts and promoting public acceptance.

The Wildlife Federations understand that WGA is compiling data from state wildlife agencies and others. 4 We also understand that WGA's Environment and Lands Work Group intends to consider additions to the Exclusion and Avoidance lists in April 2009. However, it is unclear at this point how the fish and wildlife data will be incorporated into the final REZ designations or whether the public will be invited to comment on these decisions. Currently proposed QRAs which include important fish and wildlife habitats may require significant adjustments for them to be useful as REZs.5

These adjustments could substantially reduce the size of some QRAs such that utility-scale development would be impractical. In such cases, WGA should remove the QRA. Incorporation of the wildlife data may also suggest the need to expand some QRAs in order to support utility-scale development once important fish and wildlife habitat within these areas has been set aside. The Wildlife Federations urge WGA to re-open comment on QRAs once the fish and wildlife data are available. Finalizing the REZs without providing for additional public involvement will undermine the success of the WREZ process by limiting stakeholder buy-in for the final REZs.

WGA should proceed both expeditiously and transparently in its completion of the WREZ. The Wildlife Federations look forward to reviewing and providing comments on QRAs when data regarding important fish and wildlife habitats have been made available.

Oregon Natural Desert Association

ATTACHMENT

Please accept and consider these comments from the Oregon Natural Desert Association ("ONDA") on Western Governors' Association Western Renewable Energy Zones Qualified Resource Areas ("QRA") maps and tables. ONDA is a non-profit public interest organization dedicated to preserving and protecting the public lands of eastern Oregon. ONDA has a long history of interest and involvement in public land management and energy facility siting issues in eastern Oregon. ONDA's mission is to protect, defend, and restore forever the health of Oregon's native deserts. The members and staff of ONDA use and enjoy the public lands, waters, and natural resources within the project area for recreational, scientific, spiritual, educational, aesthetic, and other purposes. ONDA and its members also participate in information gathering and dissemination, education and public outreach, commenting upon proposed agency actions, promoting the responsible development of renewable energy, and other activities relating to government management and administration of the public lands of eastern Oregon.

Our comments are focused on the QRAs in Oregon indicated in the draft maps ONDA recognizes the potential importance of wind, solar, geothermal and other alternative sources of low-carbon-emission energy for reducing this country's reliance on fossil fuels and beginning to reverse the effects of global climate change. Renewable energy, sited with sensitivity to other resources on public and private lands which may be displaced or obliterated by development, holds great potential for offsetting potential harm to public lands and natural resources from climate change. However, renewable "green" energy is not truly "green" if it results in the unacceptable sacrifice of other resources on our public lands. Areas that possess particular

significance as wildlife habitat and as roadless potential wilderness are inappropriate ONDA for many energy development projects. Locating an industrial energy development in those areas will often result in the destruction of wildlife, its habitat, or the wilderness character of the land.

Citizens Proposed Wilderness

ONDA has inventoried millions of acres of public lands managed by the federal Bureau of Land Management (“BLM”) in eastern Oregon which have wilderness character. ONDA has previously submitted five sets of citizen inventories and proposed Wilderness Study Areas to BLM’s district offices in Oregon. These inventories are as follows:

September 2002: Andrews Resource Area (Steens) Wilderness Inventory

November 2002: Supplement to Andrews Resource Area Wilderness Inventory

February 2004: Vale District Wilderness Inventory

April 2005: Lakeview District Wilderness Inventory

September 2007: Three Rivers Resource Area Wilderness Inventory

BLM is required to inventory public lands and resources on a continuing basis. 43 U.S.C. § 1711(a). As the U.S. Court of Appeals recently held, wilderness and roadlessness are resources for which BLM must keep a current inventory. *Ore. Natural Desert Ass’n v. BLM*, 531 F.3d 1114, 1119, 1138 (9th Cir. 2008).¹ Having inventoried lands with wilderness or roadless characteristics, BLM then must provide for the management of these wilderness and roadless resources in its land use plans, and consider “whether, and to what extent, wilderness values are now present in the planning area outside of existing WSAs and, if so, how the Plan should treat land with such values.” *Id.* at 1143. Because the evaluation of the wilderness character of managed public lands is a prerequisite for development on those lands, lands that retain wilderness character should be not be included within a designated Renewable Energy Zone.

The U.S. District Court for the District of Oregon has held that impacts to such proposed wilderness areas must be considered in conducting environmental impact evaluations under NEPA. The court held that the BLM “was obligated under NEPA to consider whether there were changes to or additions to the wilderness values within [the project area], and whether the proposed action in that area might negatively impact those wilderness values, if they exist.” *Ore. Natural Desert Ass’n v. Rasmussen*, 451 F. Supp. 2d 1202, 1213 (D. Or. 2006). The court enjoined a BLM decision to develop grazing infrastructure within the project area until the agency had completed its inventory of wilderness values, requiring BLM to inventory wilderness values and prepare a valid NEPA document that considers the impact of the proposed action on wilderness characteristics. BLM’s obligation to inventory wilderness resources attaches to many areas that are designated as draft QRAs.²

¹ In addition to roadlessness, “wilderness characteristics” include naturalness and providing opportunities for solitude or primitive recreation. *Ore. Natural Desert Ass’n v. BLM*, 531 F.3d at 1137.

² Litigation is currently pending in federal courts against the Department of the Interior concerning impacts to wilderness values in many areas in eastern Oregon where citizen-proposed wilderness areas are at issue and where BLM has not adequately inventoried wilderness characteristics—for example, *Ore. Natural Desert Ass’n v. BLM*, No. 05-35931 (9th Cir.) ONDA Comments on WGA’s Draft QRAs, March 2, 2009 Page 3

The attached map, Exhibit 1, shows locations where there are conflicts between the draft QRAs in Oregon and citizen proposed wilderness.³ ONDA has also included a .zip file with these comments containing GIS layers representing ONDA's citizen proposed wilderness areas in eastern Oregon. As discussed further below, many of the citizen wilderness inventory areas in Oregon are also strongholds for species which are under consideration for listing under the Endangered Species Act ("ESA"), particularly sage grouse and pygmy rabbit. The roadless nature of the citizen proposed wilderness areas helps preserve relatively intact and unspoiled habitat for these species. Because of their wild character and their importance as habitat for species in serious decline, these areas are generally inappropriate for any form of industrial energy development, including generation facilities or transmission lines.

As ONDA has indicated in signing on to comments submitted by The Wilderness Society and Western Resource Advocates, we recommend that the WGA carefully refine the QRAs to actually exclude all areas on the "Exclude" list, altering QRA boundaries to ensure that they avoid designated wilderness and the Steens Mountain Cooperative Management and Protection Area. In addition, citizen inventoried wilderness areas and citizen proposed wilderness indicated on the attached map and show on the enclosed GIS layers should be added to the "Avoid" list. Three of the Oregon draft QRAs—OR_SO_1883, OR_SE_2179, and OR_NE_1683—should be re-evaluated and altered in shape or eliminated to avoid serious conflicts with lands with wilderness characteristics and largely intact sage steppe habitat which, as discussed below, is crucial for the survival of sage grouse, pygmy rabbits, and other sage-steppe obligate species.

Wildlife Impacts

The draft QRAs overlay many areas that are currently undisturbed and relatively intact wildlife habitat. The effect of any industrial energy generation and transmission in these areas will likely be to degrade wildlife habitat and ecological communities within the area affected by such development, and to fragment important areas of the remaining sagebrush steppe ecosystem. Noss et al. (1995) identified the sagebrush steppe as the 3rd most degraded ecosystem of the United States. Another paper (Sagebrush Sea, 2007) identified numerous threats to the sagebrush ecosystem including fragmentation by utility corridors and roads. Attached is a graphic from Wisdom et al. (2003) that illustrates the distribution of sagebrush habitat with various levels of fragmentation. See Exhibit 2. Exhibits 2, 3, and 4 (below) illustrate the biological significance of southeastern Oregon as an area of remaining unfragmented habitat and very high bird and mammal species diversity. (regarding the South Eastern Oregon RMP), *Ore. Natural Desert Ass'n v. Shuford*, No. 06-242 (D. Or.) (regarding the Andrews-Steens RMP), *Ore. Natural Desert Ass'n v. Gammon*, No.07- 35728 (9th Cir.) (regarding the Lakeview RMP), *Ore. Natural Desert Ass'n v. Freeborn*, No.06- 1311 (D. Or.) (regarding the Louse Canyon GMA), in addition to administrative appeals over several other projects and plans.

³ The attached map in Exhibit 1 shows citizen proposed wilderness areas inventoried and mapped by ONDA, along with proposed wilderness areas inventoried by Oregon Wild and other citizens' groups in Oregon.

The WREZ process is meant to draw zones on a map that will guide future development of industrial-scale energy projects in Oregon and the interior west. In this process, it is crucial that the zones be drawn to protect sensitive species. Avoiding fragmentation of remaining habitat is

of particular concern in the sage-steppe environment of eastern Oregon and other interior western states, where fragile lands and species that depend on them are already seriously threatened by chronic overgrazing, increasing pressures from oil and gas development, and growing threats from destructive wildfires, drought, and climate change. Because of its relative remoteness and lack of development, eastern Oregon remains a stronghold for several species which are federally protected or are being considered for federal protection.

Eastern Oregon is one of the largest relatively intact sections of sage-steppe habitat remaining in the West. The public lands on and surrounding the proposed Hart Mountain and Beaty Butte WSAs comprise a significant, critical swath of habitat linking Hart Mountain National Antelope Refuge to the northwest to Sheldon National Wildlife Refuge in northern Nevada, and connecting with designated wilderness and WSAs to create a corridor to Steens Mountain to the northeast. These areas are part of the proposed Hart-Sheldon Sage Grouse National Conservation Area. Exhibit 5. The area supports a vast array of wildlife, and includes critical winter and migratory habitat for pronghorn, as well as important habitat for sage grouse, pygmy rabbits, Western big-eared bats, ferruginous hawks, burrowing owl, desert and shorthorned lizards, and countless other birds and mammals. The neighboring Hart Mountain and Sheldon refuges are unique in that they comprise the largest area in the Great Basin no longer grazed by livestock.

The Greater sage grouse population has declined as much as 45–80 percent over the past 20 years due to habitat destruction, degradation and fragmentation, with the current breeding population estimated at 140,000 individuals, representing only about eight percent of historic numbers. A 2004 survey by state and federal scientists found that sage grouse are in long-term decline, with the report concluding it was “not optimistic about the future of sage-grouse because of long-term population declines coupled with continued loss and degradation of habitat and other factors (including West Nile Virus).”⁴ Preserving areas of intact habitat is critical to avoid the loss of this species.

Recognizing that Oregon is an area of critical importance for the species’s survival, Oregon’s Department of Fish and Wildlife (“ODWF”) has adopted a conservation strategy for the sage grouse,⁵ underscoring that human activities and structures decrease the quality of sage grouse habitat and can result in habitat loss and direct bird kills. The strategy, at pages 83–84, recommends that land management agencies carefully evaluate actions that could lead to harm to sage grouse habits. Specifically, new energy development and associated transmission projects “should avoid surface occupancy within 3.2 km (2 mi) of known/occupied sage-grouse habitat” and follow “existing utility corridors and rights-of-ways to consolidate activities to reduce habitat loss, degradation, and fragmentation by new construction.” If energy projects and their associated transmission lines could not be built immediately adjacent to existing transmission lines, ODWF recommends that planners “seek to minimize disturbance to known breeding, nesting, and brood-rearing habitats by placing power line corridors >3.2 km from these areas.” ODWF’s strategy highlights the importance of preserving habitat integrity and connectivity, noting that Habitat loss and fragmentation are probably the 2 leading causes for the long-term decline in sage-grouse. Current and future land management will need to examine landscape patterns of sagebrush habitat and seek strategies to ensure that large connected patches of sagebrush are present. The implementation of the connectivity model and habitat monitoring

techniques suggested in the Plan will help minimize the impacts of habitat loss and fragmentation.

Greater Sage-Grouse Conservation Assessment and Strategy for Oregon at 84. Similar guidance, stressing the importance of maintaining intact habitat, is found in the BLM's National Sage Grouse Habitat Conservation Strategy and BLM's guidelines regarding Special Status Species such as sage grouse.

In December 2007, the U.S. District Court for the District of Idaho ordered the FWS to evaluate properly whether the Greater sage grouse should be listed as threatened or endangered under the Endangered Species Act. The FWS has begun its new review of the sage grouse's status. The WGA must move very cautiously before designating "Renewable Energy Zones" on lands important to this species whose status is so precarious that it may be listed under the ESA. This is particularly true in light of the well-documented and devastating effect that oil and gas development has had on sage grouse populations in the Rocky Mountain states.

Energy generation projects and associated transmission are likely to harm sage grouse. The birds need contiguous, undisturbed areas of high-quality habitat, and geothermal exploration rigs and production facilities, sprawling industrial wind generation facilities, large solar arrays, associated transmission lines, pipelines, and access roads may adversely affect habitats important to sage grouse by causing fragmentation, reducing habitat value, or reducing the amount of habitat available. Power plants, transmission lines, pipelines, and other structures can also provide perches and nesting areas for raptors and ravens that may prey upon gallinaceous birds.

The Oregon Department of Fish and Wildlife is in the process of mapping priority areas for sage grouse protection, and the Western Governors' Association must ensure that this and other wildlife data is incorporated and presented for public review *before* designating Renewable Energy Zones. It is crucial that QRAs be revised, and WREZs ultimately be designated, to fully protect sage grouse habitat from potential industrial-scale energy development. Some of the areas of eastern Oregon shown as draft QRAs are also habitat for pygmy rabbits. On January 8, 2008, the U.S. Fish & Wildlife Service announced a positive 90-day finding on a petition to list the pygmy rabbit under the ESA, beginning the listing review process. Pygmy rabbits, like sage grouse, are dependent on large areas of intact sage-steppe habitat for their survival. Any activities that fragment pygmy rabbit habitat—including exploration and development of renewable energy—could lead to increased pressure on the species and its continued existence. Southeastern Oregon is also a region of major importance for pronghorn. In recent years, pronghorn populations throughout the west have suffered significantly accelerated loss of habitat from increased oil and gas development. Because of pressure on pronghorn from oil and gas development projects in states such as Wyoming and Colorado, it is particularly important to preserve large, connected swaths of pronghorn habitat in areas, such as southeastern Oregon, where they are still relatively intact and undisturbed. In Oregon, the federal government has set aside 278,000 acres as the Hart Mountain National Antelope Refuge, while more than half a million acres are protected as pronghorn wintering habitat in the Sheldon National Wildlife Refuge in northern Nevada. The FWS, which administers both areas, refers to them as the "Sheldon-Hart Mountain National Wildlife Refuge Complex."

Pronghorn summer and calve at Hart Mountain and at Steens Mountain, and migrate south to winter in Sheldon. Recognizing the importance of a similar migration corridor, in June 2008 FWS signed a pledge, along with the National Park Service and U.S. Forest Service, to protect the “Path of the Pronghorn,” a migration corridor from Grand Teton National Park to central Wyoming, included among the “Exclusion” Areas for the WREZs. However, the corridor between Hart Mountain and Sheldon conflicts with the draft QRA OR_SO_1883. This QRA should be eliminated or drastically modified to protect the pronghorn migration routes.

The area between Hart Mountain and Sheldon consists of enormous, contiguous areas of designated wilderness, WSAs, or lands retaining wilderness characteristics which ONDA has proposed as WSAs. Exhibits 1, 5. However, energy development in this area could have deleterious effects on this important wildlife habitat. The construction of new roads and transmission lines associated with energy development and transmission would also result in soil disturbance, encouraging the spread of non-native weeds and grasses and further disturbing the relatively intact sage-steppe habitat in this area. Where particularly valuable areas of intact habitat remain for sensitive species, those lands should be avoided for any industrial-scale energy development, even if it involves renewable energy.

Recommendations

- Incorporate wildlife data - it is critical that WGA gather and incorporate wildlife data as planned in the WREZ process, and provide another round of public comment on maps after wildlife data has been added.
- Confer with the federal Fish & Wildlife Service before designating WREZs – WGA specifically should incorporate the latest information on the status of species that are candidates for ESA listing in the WREZ process before designating areas that may conflict immediately with potential critical habitat for a newly-designated species. The WGA should clarify the process by which wildlife data will be considered in further revisions to the QRAs and ultimate designation of REZs.
- Refine QRAs to exclude all areas on the Exclude list - the current QRA boundaries intersect with designated Wilderness, National Monuments, and other areas on the Exclude list.
- Add the Columbia River Gorge National Scenic Area to the “Exclusion” list
- Avoid conflicts with Citizens’ Wilderness Inventory Areas and Citizens’ Proposed Wilderness by adding these areas to the “Avoidance” list – GIS analysis of the QRAs indicates varying levels of conflict with citizens’ inventoried wilderness areas and citizens’ proposed wilderness. As shown in the map “Intersection of Citizens’ Proposed Wilderness and Qualified Resource Areas – Oregon” (Exhibit 1), QRAs have:
 - Very little conflict (OR_NE_1683)
 - Some conflict (WA_SO_3618 and WA_SE_2502)
 - Serious conflict (OR_SO_1883, OR_SE_2179 and OR_WE_1459)

The QRAs should be reduced in size or changed in shape to avoid these conflicts.

- Re-evaluate QRAs with serious conflicts – for those QRAs that have serious conflicts with protected areas and areas proposed for protection, water resources, and other environmental considerations, WGA should consider removing the QRA entirely. In particular, OR_SO_1883 has serious conflicts not only with proposed wilderness, but also with crucial sage grouse and pronghorn habitat. See Exhibits 1, 2, 5. Please consider eliminating this QRA entirely, and also please consider drastically reducing the size of QRA OR_SE_2179 to avoid conflicts with

proposed wilderness and areas of important, intact sage steppe habitat. QRA OR_WE_1459 appears to intersect with the Columbia River Gorge National Scenic Area and several citizen proposed wilderness areas in the Cascade Range, and should be modified accordingly to avoid these areas. WA_SO_3618 also appears to intersect with the Columbia River Gorge National Scenic Area.

- Additional opportunities for public comment should be provided as maps and data are updated and revised. Because the draft QRAs do not incorporate wildlife data or citizen proposed wilderness information, the WGA should extend its timeframe for promulgating WREZs and provide another public comment period on revised draft QRA maps that incorporate wildlife data and additional Exclude and Avoid data. Particularly in Oregon, where several QRAs have serious conflicts with proposed wilderness and sensitive species habitat, it is critical that the public be provided the opportunity to comment on these changes and for WGA to fully consider any issues identified or recommendations made. Once the WREZ working groups obtain and apply the wildlife and other missing data and take a second cut at modify the existing QRAs, we suggest at least thirty days of additional public comment at this stage. Finalizing the WREZs without providing for public involvement at this stage will limit the usefulness and effectiveness of the WREZ process and would almost certainly limit the amount of stakeholder buy-in for the final WREZs.

Conclusion

Identification of priority areas for species habitat conservation and protection of remaining intact areas that retain wilderness character should be the first step in deciding where development of renewable energy and related transmission is appropriate. We agree that development of renewable alternative sources of energy is essential for the long-term protection of wildlife and wild lands from the effects of global climate change. However, such development to guarantee long-term benefits must avoid sacrificing roadless wilderness and the species that depend on these relatively undisturbed ecosystems for their survival. The WREZ process should encourage development within areas that are already degraded as habitat and not eligible for designation as wilderness, and which are close to existing transmission lines and have fewer resource conflicts. Encouraging development in such areas while avoiding intact, essential bird and wildlife habitat will protect the imperiled species while maximizing stakeholder support for new renewable energy projects.

PNM

Doug Campbell

Exclusion and Initial Avoidance Areas

The level of detail provided on the web site is not sufficient to validate the resulting QRA that are being presented. More documentation of the individual Exclusion Areas is no doubt available to the work groups but is either unavailable or not easily assessable from your web site. For example, from our location it was never possible to identify features from the mercator.nrel.gov map site. The weight given to Initial Avoidance Areas is troubling as each class of avoidance is not, in reality, equally prohibitive. Of course, not having the next round of wildlife and environmental areas to evaluate at this time also lessens our ability to comprehensively evaluate work products.

There seems to be an uncertain relationship between Exclusion Areas as mapped and the QRA put forth by the Zone Identification and Technical Analysis Work Group. Many proposed QRA overlap Exclusion or Initial Avoidance Areas. This is especially evident in Southern California. Further refinement of the QRA is needed or further discussion of the reasons for such overlap is suggested.

SDG&E

Steve Rahon

SDG&E appreciates the opportunity to comment on the Draft Preliminary Environmental and Technical Exclude and Avoid Area map and documents. The Environment and Lands Working Group (E & L Working Group) of the Western Governors' Association's Western Renewable Energy Zone (WREZ) project developed these documents and seeks public input on their draft conclusions. The WREZ Steering Committee will eventually rely on these and other working group documents to make detailed, informed recommendations identifying western areas with vast, concentrated and developable renewable energy resources, and low land development conflicts.

The documents generated by the E & L Working Group include summary lists and a detailed map highlighting various areas that should, in the Group's opinion, be "excluded" or "initially avoided" from consideration as a qualified resource area. Specifically, the Working Group defines "Exclusion Areas" are areas that should be excluded from consideration as qualified resource areas "because utility-scale renewable energy development is precluded by law or regulation." Similarly, "Initial Avoidance Areas" are indicated as such because the Working Group believes "purpose, policy, restrictions, conflict or controversy" prevent renewable development. The map developed by the group attaches a specific color to each of the legal, regulatory, or policy restrictions that form the basis of an "exclude" or "avoid" designation, and then plots that color to a specific area on the map where that restriction prevents development. The end result is a map with no less than eighty (80) different colors splashed across what appears to be the vast majority of the western United States and Canada.

SDG&E is committed to developing renewables in its own backyard, and to creating access to renewables developed within the boundaries of its western neighbors. Consistent with this goal, SDG&E is concerned that the seemingly over-exclusive nature of the documents at issue may create unintended barriers to development down the road. As indicated above, the working group identified more than 80 federal and state regulations, initiatives or policies that would ostensibly prevent renewable development in specific areas throughout the West. When the areas affected by the identified restrictions or hindrances are plotted back map, the result is a map of the west that seems to indicate there are relatively few, if any, areas where renewable resource and transmission development can occur.

SDG&E appreciates the enormity of the E&L Working Group's tasks, and also appreciates the tension inherent in the WREZ Group's commitment to identify areas with the highest renewable development potential coupled with the lowest levels of legal, regulatory or environmental barriers to development. The goal to identify high concentration/low resistance areas must necessarily involve ranking some areas as less than ideal given current legal, policy or

environmental restrictions. But SDG&E questions whether being overly exclusive best advances the WGA's stated goal of supporting renewable development in the west.

To be sure, the Working Group delineated the "exclude" and "initially avoid" areas simply to objectively outline existing legal, regulatory and policy positions that would prevent development if it were undertaken today. SDG&E fears, however, that the overly exclusive nature of the documents fails to account for the possibility barriers that exist today, may not exist tomorrow. Obviously, attitudes can change, resistance may abate, and political and environmental climates continually evolve. At bottom, the singular focus on exclusion fails to recognize that compromises and solutions to existing legal, regulatory and environmental siting barriers can emerge. Indeed, crafting solutions and reaching compromise positions on existing siting barriers is often the rule in renewable resource and transmission development, not the exception.

The Working group should take care that through broad (and exceedingly colorful) brush strokes and expansive verbiage, it does not erect unintentional barriers to developing certain areas down the road. By striving to highlight areas whose current development potential is less than ideal, SDG&E is concerned that the map and documents under review here could, if left unrevised, be viewed as foreclosing on, and not fostering, renewable development opportunities in the future.

SDG&E recommends that the Working Group pare down or mitigate the exclusionary conclusions highlighted in the documents under review. At a minimum, SDG&E suggests the documents include several caveats indicating that the identified restrictions and barriers simply represent a snapshot in time, and are not meant to preemptively preclude or foreclose on future renewable resource or transmission development in the affected areas.

Shell WindEnergy Inc.

Krista Johnson

Shell WindEnergy Inc. is involved in eleven wind-generating facilities across the US and Europe with approximately 1100 MW of gross capacity in operation. Within the WGA footprint, Shell has four existing wind-generating facilities in operation and several proposed large-scale projects in various stages of development. As a developer of large-scale wind generating facilities, Shell is keenly interested in harnessing the potential of robust renewable resources in location-constrained regions.

With regards to the WREZ Environmental and Lands workgroup's determinations on Exclusion and Initial Avoidance areas, Shell recommends a flexible approach to determine exclusion areas pertaining to siting of future transmission infrastructure needed to unlock the renewable energy potential within the Qualified Resource Areas (QRA). Significant new transmission infrastructure will be required in both new and existing corridors. Exclusion areas for such transmission infrastructure should be designated in such a manner as to address the need for environmental protection but without compromising the development of untapped renewable energy resources contained in the QRA's.

Shell has a strong interest in the advancement of the WREZ Project and wishes to participate in discussions regarding future phases and implementation.

Andre Sobolewski

Self

I am a resident of the Sunshine Coast in British Columbia, a region North of Vancouver that is the epicenter of Independent Power Producers (IPPs) activity. We hold tremendous potential for run-of-river (RoR) hydroelectric power production, a potential recognized by the Western Renewable Energy Zones (WREZ) initiative and designated as a distinct Qualified Resource Area (QRA). I offer comments regarding Exclusion or Initial Avoidance Areas within this area (the Coast).

The British Columbia Environmental Assessment Office (BCEAO) has received more than a dozen applications for IPPs on the Coast. In addition, the Integrated Land Management Bureau (ILMB) has issued several hundred water licenses for potential RoR projects. This has created considerable public interest and controversy. For example, the recently submitted application by Plutonic Power Corporation for its Bute Inlet Hydroelectric Power project has elicited 900 individual submissions in response to BCEAO's call for Pre-Application Public Comments [Available at http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_project_doc_list_316_p_pub.html ; accessed Feb 26, 2009

A number of organizations have called for a moratorium on IPPs until the provincial government establishes a framework to rationalize their development. Clearly, the potential and proposed developments have roused strong interest and passions among British Columbians.

The nature of their concerns can readily be garnered from public comments made at open houses for these projects, of which I attended three. They can be summarized as follows:

Is the power produced by the project needed, and is it intended for domestic use or for export?
What are the immediate impacts of the proposed project on local fish and wildlife?
What are the cumulative impacts of this project on fish and wildlife, when added to those from past and future activities in the region?

There is a strong public sentiment that these developments are more or less chaotic, and that they are potentially devastating to the environment. In the Bute Inlet case, public interest is focused on preventing further declines in fish and wildlife populations, after they suffered severe impacts by past logging activities. Specially valued are salmon, grizzlies and mountain goat. In addition, the Marbled Murrelet presents a special interest, due to its endangered status and complete dependence on Old Growth forest stands. This is resulting in a growing resistance to this and other IPP proposals.

The land use plans in the Bute Inlet area, such as the Homathko Landscape Unit Plan or the Johnstone-Bute Coastal Plan, offer no specific guidance in planning this development, though they identify valuable assets in their respective areas. More broadly, no government directive

provides for any orderly development of RoR projects, save (nominally) for the requirement to assess cumulative effects during the permit application for a project. However, we have seen that this requirement was ineffective during the East Toba/Montrose application, when the proponent was not required to consider past projects or the other near-term projects planned in the immediate vicinity of their proposed RoRs. This engenders a lack of confidence in the assessment process.

The public call for the orderly development of these projects cannot be dealt with by the Environment & Lands work group: it is a policy matter that ought to be addressed at the government level. However, it is within the E&L mandate to address their potential environmental impacts. Specifically, E&L can identify exclusion or initial avoidance areas.

On the Coast, there are several designated Old Growth Management Areas (OGMAs, identified in Landscape Unit Plans) set aside to provide nesting habitat for endangered Marbled Murrelets. Designated OGMAs be shifted around in response to forestry or other industrial activities, though proposed transmission corridor is not likely to be permitted to run through or very near an OGMA.

The E&L work group can and should consider more than OGMAs when identifying initial avoidance areas. It can recommend appropriate densities of RoRs in an area, so as to avert or minimize cumulative impacts on sensitive wildlife populations. This is a simple and logical extension of its mandate, and is called for by present circumstances on the Coast. As things stand, several RoR projects can be sited in an area with large hydroelectric potential, until a cumulative effects assessment determines that more projects will be harmful. However, the methodology and application of this analysis is weak, as mentioned above for East Toba/Montrose (See also P.N. Duinker and L.A. Grieg. 2006. The Impotence of Cumulative Effects Assessment in Canada: Ailments and Ideas for Redeployment. *Environmental Management*. Vol. 37, No. 2, pp. 153–161). The work group can make it its mandate to develop and recommend methodologies for cumulative effects assessments that are protective of sensitive wildlife populations where ever-increasing numbers of projects are being proposed. This scenario is not unique to grizzly or mountain goat populations on the Coast: it is likely applicable to other Qualified Resource Areas.

In fact, failure to rectify this problem may result in legal challenges and substantial delays for proposed projects. Such was the case for the Cheviot Mine in Alberta, where environmental groups successfully mounted legal challenges against federal review agencies over the soundness of the Cumulative Effects Assessments (Barnes, J. L., C. L. Horvath, and L. Matthews. 2002. *Addressing cumulative environmental effects: Scoping and the implications of recent court decisions*. Pages 43–60 in A. J. Kennedy (ed.), *Cumulative environmental effects management: tools and approaches*. Alberta Society of Professional Biologists, Edmonton, Alberta.). The legal status of the Marbled Murrelet and other sensitive species in the area makes this a distinct possibility.

- The export of Canadian power to the USA is largely opposed in British Columbia because no one cares to meet the power appetites of our Southern neighbors at the expense of our own environment. The perceived

weaknesses and failures of past environmental assessments ground this opposition. The E&L work group can address this reality by developing robust assessment methodologies, focusing particularly on Cumulative Effects Assessments.

Southern Ute Alternative Energy

Rebecca Kauffman

Given the enormous task of finding, consolidating and levelizing the data for this, it is a commendable result in the given time frame.

A few comments that would improve the visibility to the work and add to the work product overall.

- Inclusion of all the environmental data with the ZITA and Transmission pieces. This looks like it is a matter of time vs. content from my reading of the documents.

- Distillation of all the great data provided in the spreadsheets to the outline at a high level what was included and what was not able to be included. Having the data spreadsheet is great, but isn't the easiest to understand the big picture in terms of where the team thought things should be.

SouthWestern Power Group

David Getts

For your information, SWPG is participating in the Zone Identification and Technology Assessment (ZITA) work group and applauds the efforts of the WGA, the WGA staff and the many parties that are collaborating to help identify and quantify renewable energy generation and transmission opportunities in the West through the WREZ project.

SWPG is also the project developer and one of 5 parties that are funding the development of the SunZia Southwest Transmission project (SunZia), a proposed 460-mile, double circuit 500kV renewable transmission line. SunZia is a merchant transmission project that seeks to bring renewable energy to market by electrically interconnecting central New Mexico with southern New Mexico, southern Arizona and the metro-Phoenix area. SunZia primary customers are wind, solar and geothermal energy generation projects that are interested in obtaining firm or conditional firm transmission service.

Specific Comments:

1. The Transmission Characteristics document (titled Preliminary Transmission Input Assumptions) includes right-of-way (ROW) widths associated with different voltage levels of transmission line projects. Since ROW costs can have a significant impact on the overall cost of a given transmission line, we believe these ROW widths should be representative of what actually is required to facilitate a commercial transaction. In general they appear narrower than what we think is realistically required. Particularly when an applicant is seeking ROW with state and federal agencies, the ROW width may have to be wider than the minimum desired by the applicant. In addition, at higher

voltage levels it may not be possible to maintain phase separation on a single set of towers for double circuits and thus require two independent lines and towers. For example, we do not believe a single set of towers can accommodate a 500kV double circuit.

2. The Initial Avoidance List does not include Designated Critical Habitat areas. We believe these should be included as one of the many limitations on developing generation resources.

Trout Unlimited

Bradley Powell

Exclusion and Initial Avoid List

It is unclear how a QRA designation will affect the development of renewable resources and the protection of important fish, wildlife, water and air resources. Additionally, it is unclear how identification of “exclusion” areas and “initial avoidance” areas will affect development.

- The affects of these designations (QRA, exclusion, and initial avoidance) on renewable energy development and the protection of important fish, wildlife, water and air resources need to be made explicit.
- Wildlife sensitivity areas should be identified *before* QRAs are designated.
- Wildlife sensitivity areas should provide for the protection of important fish, wildlife, water and air resources.
- Development of renewable energy resources should be precluded from wildlife sensitivity areas.
- The process for identifying “exclusion” and “initial avoidance” areas should incorporate the work done by the Western Governor’s Association Wildlife Corridors Initiative Oil and Gas Working Group and Wildlife Habitat Councils with the intent of protecting important fish, wildlife, water and air resources.
- Certain areas in the list of “initial avoidance” areas should instead be included in the list of “exclusion” areas. These areas include:
 - Federal:
 - BLM RMP designated lands which have development constraints, such as:
 - No Surface Occupancy (NSO) Restriction areas
 - Research Natural Areas
 - Wildlife Management Areas (and Sikes Act tracts)
 - Lands inventoried by BLM and found to have wilderness characteristics
 - BLM lands managed for wilderness characteristics.
 - Lands proposed for designation in federal legislation (Omnibus Public Land Management Act of 2009, California Wild Heritage Act of 2007, California Desert and Mountain Heritage Act, Sequia-Kings Canyon National Park Wilderness Act, and Eastern Sierra and Northern San Gabriel Wild Heritage Act)
 - US Forest Service Inventoried Roadless Areas in the 10th Circuit
 - State/Provincial:

- Lands acquired through federal funds for conservation purposes (i.e. Pittman-Robinson or Section 6 grants)
- State Wildlife Areas
- State Parks
- Existing Conservation and Mitigation Banks
- British Columbia Biodiversity Areas
- Alberta Sensitive Habitat Areas

Utah Native Plant Society

Tony Frates

Native plant species and their pollinators must always receive priority attention when "wildlife" concerns or issues are addressed as they quite literally support our existence. We are concerned about the impact to native plants, and to any number of rare plant species in connection with this initiative.

In this process you should be specifically obtaining data from the Utah Natural Heritage Program (State of Utah, DWR) in connection with their extensive data and maps for all plant species that have been given a G1, G2 or G3 global rank, and for any varieties with a subspecies rank of T1 or T2 in Utah's west desert (and in connection with any other areas in Utah under consideration). This should then be overlayed with any proposed developments including the impacts of roads, transmission wires, etc. and these species/varieties should be avoided.

Another although not all-inclusive resource, Utah rare plant guide maintained by us at www.utahrareplants.org should be consulted. BLM sensitive species lists should also be consulted, however, these lists are not complete and do not adequately address the protection of sensitive plant species in Utah.

There are a number of rare plant species of particular concern in Utah's west desert. Currently there are no plant species endemic to the west desert that are federally listed under the Endangered Species. The need for listing could change depending on the actions potentially taken here.

Utah has no state laws that help to protect plant species. This needs to change as these and other extensive proposals progress in order to adequately protect rare plants as the cumulative impacts will likely be severe and potentially cause extinctions. In addition, the primary Utah state lands management agency, SITLA, needs to become a better land manager rather than a land developer and it needs to give attention to "best management practices" and obtain the data available to it from its own sister agencies in making decisions that impact natural resources to the extent that Utah state lands may be involved in this process.

Renewable energy sources are important and need to be investigated. However wind farms, for example, have many impacts and create many concerns. There is no such thing as "clean energy." All energy proposals have impacts that have to be evaluated on their merits, and the cumulative impacts have to be taken into account.

Avoiding rare plant populations requires adequate surveying (and not just a single field season) and planning. Ensuring the protection of rare plant populations (and their pollinators, typically bees which are a critical resources and which do NOT necessarily live where the rare plants are found) does typically not stop a proposed course of action. But the smallest possible footprint/impact needs to be sought to protect the integrity of ecosystems and in order to minimize global warming.

Washington Department of Fish and Wildlife

Michael Ritter

The Washington Department of Fish and Wildlife (WDFW) has reviewed the documents posted on the Western Governor's Association website prepared by the Zone Identification and Technical Analysis (ZITA), and the Environment and Lands (E&L) Working Groups and offers the following comments at this time. Other comments may be offered as the project progresses.

At this point, renewable energy zones (REZ) in Washington State have not been identified, or any where else in the Western Interconnection, but their predecessors, qualified resource areas (QRA) have. In Washington State, these QRAs occur in the south central and southeastern part of the state and may be contiguous with parts of Oregon. Coincidentally, these QRAs coincide with areas in the state currently experiencing significant wind power development.

We are in general agreement with the screening process used by the ZITA to identify the QRAs in Washington State. However, the areas in Washington State depicted on the QRA map may not be consistent with the information we submitted to the E&L in late 2008. Sensitive lands in Washington (i.e. State Critical Habitat and WDFW Game Reserves) submitted to the E&L may qualify as "exclude" or "avoid" lands and may need to be included in the on-going QRA refinement process before the REZ screening begins. Additionally, Priority Habitats and Species (PHS, WDFW 2008) and Species of Greatest Conservation Need (SGCN, Washington's Comprehensive Wildlife Conservation Strategy, WDFW 2005) may also qualify as "exclude" or "avoid" lands. We do have concerns that PHS and SGCN data are not consider in QRA development.

It is our recommendation that QRAs go through another screening process before the E&L assess wildlife sensitivity in these areas. Overall, data are lacking for 26% of all categories on the Exclusion and Avoidance List. On the 'Avoidance List' only, data are lacking for 64% of the categories," which includes 42% for State/Provincial data. Further refinement of the QRAs will most likely benefit the E&L as they assess wildlife data within these areas. If presented with only the existing data, QRAs and REZs in Washington State could give the public and wind power developers the false impression that natural resource concerns are minimal and lead to additional wind development interest in areas of the state where sensitive species and habitats occur, including PHS, SCGN, and federal and state listed species.

Western Business Roundtable

Jim Simms

The Roundtable strongly believes that a responsible federal energy policy must include environmentally sensitive development and utilization of all the available domestic energy resources, including the West's vast array of renewable energy options. We understand that only through development of a robust and broad energy supply portfolio, combined with strong conservation and efficiency initiatives, can we hope to meet the twin objectives of energy independence and environmental stewardship that are so important to the long-term economic and national security of our nation.

The Roundtable would like to make two thematic observations about the expectations outlined by the foundation documents for initiating the WREZ process. The first is that we understood the WREZ process to be supportive of greater renewable energy production and we certainly agree with producing more energy from all sources. In light of this guidance for the process, we ask that you be mindful of and take action to mitigate against the potential for the WREZ's exclude and avoid lists to take on significance greater than what was intended by the E & L work group or the process that was initiated by the Western Governors to enhance renewable energy development in the West. As we will further discuss in our comments below, this process has excluded vast areas that are legally available for energy development simply because those lands have been proposed for other more exclusive uses such as proposed wilderness or proposed roadless areas. A WREZ process exclusion of those lands even though they are legally available could result in a de facto limitation on further discussion of renewable energy in those areas. This may in turn result in a shortsighted and unnecessary limiting of renewable energy development. We believe that outcome was not intended for this WREZ initiative.

In addition, we note that the Western Governors identified job creation across the West as a benefit of promoting renewable energy development through the WREZ process. We caution that another byproduct of over exclusion may be a failure to nurture the very jobs the Governors anticipated from this process. Fortunately, you have the opportunity to adjust so that excluded and avoided lands are not de facto designated as "off limits" for debate and discussion about renewable energy opportunities. You also have the opportunity to stimulate more opportunity for job creation by supporting renewable energy in all of the places where it is viable in the West not just those places where the E & L work group has identified it is without conflict.

The Western Business Roundtable appreciates this opportunity to comment and will focus on two main areas of concern:

- The broad-brush, exclusionary process utilized by the E&L Work Group will relegate Western renewable energy development zones to only those lands that purport to offer no conflicts, whether actual or anticipatory. We think this misses the goal the Western Governors set out in establishing the WREZ process (WGA Resolution 08-8): to support development of Western renewable energy resources.

Should the Steering Committee accept the E&L Work Group recommendations, the WREZ process seems in danger of devolving to one that is intended to erect hurdles - - rather than encourage and help expedite -- Western renewable energy development. Upon review of the map offered by the work group for the areas that are either excluded or will be avoided, (and "no utility scale development allowed"), it is a true challenge for us to imagine where renewable

energy facilities could be reasonably located and then integrated with viable transmission connections to the Western electricity grid.

- This process may intrude upon state authority and it certainly appears to ignore state and project process protections that would allow for both renewable energy project development and environmental protection.

Comment 1: Over-Exclusion in the “Exclude” And “Avoid” Areas.

We appreciate the work group’s efforts to assess the opportunities for responsible renewable energy development across a vast Western landscape. In particular, we think the blend of work group members between wildlife experts and renewable industry representatives is helpful in gaining a fuller perspective on the renewable energy opportunities in the West and how they can be best maximized.

We are concerned however, that this process has failed, so far, to take into account the opportunities to overcome challenges on the ground that may allow protection of our environment and wildlife resources and allow for renewable energy development. The two objectives do not always have to be exclusive, yet even in the proceedings of the E & L Work Group we have seen a level of inflexibility on this point as expressed in our prior comments on the first draft of the Exclude and Avoid areas.

Recent developments in this process have heightened our concern about this inflexibility. Specifically, it appears the role of the Western Governors’ Wildlife Council has increased to a point where work done by the E& L Work Group is now being given less weight or even discounted entirely after determination of the Council.

Currently, as the E & L Work Group map amply demonstrates, the process for determining renewable energy zones is a broad-brush process of elimination. This approach effectively relegates development opportunity to the “left over” lands. It is a short-sighted game plan given the tremendous need for additional renewable energy resources, the need for location diversity and taking into consideration the fact that once facility planners get into the process of choosing a site, many lands become ineligible for siting due to practical “on the ground” considerations.

The list of excluded and avoided lands includes lands that are proposed but not designated as “wilderness”, lands that are proposed but not lawfully designated as “roadless” and a whole host of other state and federal designations that can and should be managed for multiple purposes.

The Roundtable urges a different approach that finds ways to more readily include lands. We think relegating renewable energy development to the “left over” lands misses the WREZ goals. Unfortunately, renewable energy development opportunities have their own particular siting needs and we can not always hope that they will occur in locations where no conflicts (either real or potential) exist.

Comment 2: This Process Undervalues State Authority And Environmental Protections That Will Occur At The Project Level.

We are concerned that this focus on exclusion/avoid areas also intrudes upon the authority of each state to site renewable energy facilities. Each state has its own process for determining the location of renewable energy facilities and the associated transmission infrastructure necessary to take the energy to load centers. That process will always include an environmental analysis of proposed projects and the surrounding area at a level of detail far greater than what is happening in the WREZ process. While the Western Business Roundtable appreciates that the recommendations on the WREZs are clearly not legally binding, the unintended result of this broad-brush exclusionary process could be to preclude the development of areas that have never been properly studied.

As stated before, we recommend that the WREZ include a statement, similar to the stated core premises included in the work group's first request for public comment, noting that the exclusionary zone analysis used by the work group is simply a tool to identify those areas that are likely the most compatible areas for the development of renewable energy generation. Furthermore, the areas identified as "Avoid" or any other designation¹ that does not account for achieving a careful balance between environmental and renewable energy development objectives, are not deemed through this process as inappropriate for development. We believe this clarification is necessary to prevent the misuse of the recommendations given their breadth and the over exclusion noted above.

Conclusion

Instead of identifying zones where renewable energy production can be best accommodated, this process seems destined to result in "No Renewable Energy Zones" across the West.

The weakness with the approach outlined by the Environment and Lands Work Group to date, as demonstrated by the map offered for comment, is that it assumes vast areas across the West are excluded from any discussion at all. Once the Western Governor's Wildlife Council amends the map developed through the E & L Work Group process, we anticipate that even less acreage will be deemed compatible with energy development.

We are concerned that some of the areas colored in on the map may indeed present great opportunity for renewable energy facilities from a practical viewpoint. We argue that Western decision-makers and the public would be better served by a more thorough effort to find compatibility for renewable energy and environmental and wildlife objectives than to simply remove the renewable energy options from consideration. This "one size fits all" strategy will not meet the objectives of the WREZ.

¹ We understand that some of the designations such as "high sensitive" and "low sensitive" may be subject to change or described differently as the WREZ process proceeds to the Wildlife Council and onward to the Steering committee.

We understand and empathize with the difficulties in managing very broad-based "stakeholder" processes like the WREZ. We encourage the WREZ to take a more positive, pro-active approach to identifying lands that are suitable, with proper environmental safeguards, for renewable energy development. At the very least, a statement as outlined in our comment two would be beneficial.

**Wilderness Society
Western Resource Advocates
Center for Native Ecosystems
Oregon Wild
Oregon Natural Desert Association
San Luis Valley Ecosystem Council
Idaho Conservation League
San Luis Valley
Water Protection Coalition
Defenders of Wildlife
Natural Resources Defense Council
Arizona Wilderness Coalition
California Wilderness Coalition
New Mexico Wilderness Alliance
Southern Utah Wilderness Alliance**

ATTACHMENTS

The Western Governors' Association (WGA) Western Renewable Energy Zones (WREZ) initiative is an extremely important process for facilitating responsible renewable energy and transmission development, and we support the goals of the WREZ. As discussed below, responsible renewable energy development entails protecting lands, wildlife, and natural resource values, prioritizes development on already degraded lands close to load and existing transmission, and ensures transparent, stakeholder driven planning. The recommendations below aim to improve the WREZ process and help ensure that the final products of the initiative are as helpful as possible in facilitating truly responsible renewable energy development.

1. Additions to Exclusion and Avoid Areas

There are several additional categories of land which should be included in the Exclude and Avoid lists. (Some of these areas have also been recommended for inclusion on the exclude and avoid lists by the [Western Environmental Law Center in their January 14th, 2009 letter \(attachment 1\)](#)).

The Exclude and Avoid lists also contain some categories of land which should be included, but for which the WGA does not yet have data. It is critical that the WGA gather data for these areas and include it in subsequent maps and tables in the WREZ process.

a. Exclusion Areas

The following areas should be added to the Exclude list:

- Forest Service lands, including citations to Forest Service Manual (FSM):
 - National Monuments, National Recreation Areas, National Scenic Areas [FSM 2371]
 - National Trails [FSM 2353.4]
 - Wild and Scenic Rivers [FSM 1924 & 2354 FSH 1909.12 Chapter 80]
 - Wilderness Study Areas [FSM 1923 & 2320, FSH 2409.19]
 - Inventoried Roadless Areas [In a 9/22/06 national directive, the Forest Service was instructed: "Do not approve any further management activities in inventoried roadless

areas that would be prohibited by the 2001 Roadless Rule.” As written, the Roadless Rule prohibits road construction in identified roadless areas and the Forest Service has specifically acknowledged that development and construction of transmission lines and pipelines requiring roads would be prohibited. *See*, 66 Fed. Reg. 3243, 3270 (January 12, 2001).]

- The Trapper’s Point ACEC designated through the Pinedale RMP should be added to the list of exclusion areas, similar to the “Jackson Pronghorn Migration Corridor (WY)” that is already included.

b. Avoidance Areas

The following areas should be added to the Avoid list:

- Administratively designated Forest Service “Special Areas”:
 - Scenic, Geologic, Botanical, Zoological, Paleontological, and Historical Areas [FSM 2372, 36 CFR 294.1 (a)]
 - National Natural Landmark and National Historic Landmark [FSM 2373, FSM 2363.1]
 - Research Natural Areas [FSM 4063]
- Forest Service special wildlife “Management Areas”, similar to “Jackson Pronghorn Migration Corridor (WY)”:
 - Such as the Elkhorn Wildlife Management Area on the Helena National Forest
 - Because of their sensitivity, these areas should be mapped as Avoid. Though similar sensitivities exist with these areas and the “Jackson Pronghorn Migration Corridor (WY)”, these areas do not enjoy the same level of administrative recognition and protection as the “Jackson Pronghorn Migration Corridor (WY)”, so Avoid is more appropriate than Exclude.
- Other important lands that have been recently identified in Forest Plans via regional wildlife assessments, for example:
 - Southern Rockies Lynx Amendment in Forest Service Region 2 where connectivity was identified as critical and 38 “Lynx Linkage Areas” were identified
 - Greater Yellowstone Grizzly Bear Forest Plan Amendment that applied to Forest Plans in 3 different Forest Service Regions surrounding Yellowstone National Park
- Citizens’ Wilderness Inventory Areas, Citizens’ Proposed Wilderness and Citizen’s Conservation Proposals, as well as lands proposed for Wilderness or other protective designations in pending legislation
 - The Wilderness Society submitted extensive information regarding the importance of avoiding wilderness quality lands and the legal and regulatory requirements supporting such protection. In our [letter of October 28th, 2008, \(attachment 2\)](#) we described such lands as Congressionally Proposed Wilderness Included in 2008 Omnibus Bill, BLM-Inventoried Lands with Wilderness Characteristics, Citizens’ Wilderness Inventory Areas and Citizens’ Proposed Wilderness. We have already made available to the WGA any such data which we have; for your convenience, this data is included again here in a CD, along with an explanatory [excel spreadsheet \(attachment 3\)](#).

- The Avoid list already includes Congressionally Proposed Wilderness included in Omnibus Public lands Management Act of 2009 (S22, as passed by the Senate), as well as lands inventoried by BLM and found to have wilderness characteristics and BLM land managed for wilderness characteristics. We support the inclusion of these areas on the Avoid list. We have already made available to the WGA any such data which we have; for your convenience, this data is included again here in a CD, along with an explanatory [excel spreadsheet \(same as attachment 3\)](#).
- Citizens' Wilderness Inventory Areas, Citizens' Proposed Wilderness, and other Citizens' Conservation Proposal areas (such as proposed National Conservation Areas) should be added to the Avoid list.
- Other lands proposed for conservation designation by Congress, such as National Monuments and National Conservation Areas, should also be added to the Avoid list.

2. Additional information to inform Qualified Resource Areas

The QRAs open for comment are helpful in identifying areas with high resource potential which have undergone some environmental screens. However, additional screens are necessary before QRAs can become Renewable Energy Zones (REZs). Some of these screens, such as the Environmental Protection Agency's (EPA) data on Brownfields sites with renewable energy development potential, will enhance the usefulness of the eventually designated REZs by identifying already degraded lands with minimal conflicts with development. Other screens will enhance the usefulness of the REZs by identifying additional areas of conflict which should be avoided.

Further, analysis of the QRAs indicates that some QRAs have limited conflict with protected areas and areas proposed for protection, while others have significant conflict. QRAs with significant conflict will require additional adjustment for them to be useful as REZs. Where serious conflict exists with a QRA and resolution of the conflicts would substantially reduce the size (such that it would no longer be useful for large-scale development), the designation of the QRA as a REZ will be counterproductive for both focused, responsible renewable energy and transmission development and for environmental and resource protections. In such cases, WGA should consider removing the QRA.

QRA Recommendations:

- Incorporate EPA data on Brownfields renewable energy development potential – EPA has mapped Brownfields, Superfund, and Resource Conservation Recovery Act areas to identify sites with high renewable energy development potential². WGA should incorporate this data ([included in attachment 3](#)) into the QRAs to help guide development to already degraded lands.
- Incorporate wildlife data - it is critical that WGA gather and incorporate wildlife data as planned in the WREZ process.
- Obtain and incorporate data on significant historical and cultural resources
- Refine QRAs to exclude all areas on the Exclude list - the current QRA boundaries intersect with designated Wilderness, National Monuments, and other areas on the Exclude list.
- Avoid conflicts with Citizens' Wilderness Inventory Areas and Citizens' Proposed Wilderness – GIS analysis of the QRAs indicates varying levels of conflict with Citizens' Wilderness Inventory Areas and Citizens' Proposed Wilderness. As shown in the map

“Intersection of Citizens’ Proposed Wilderness and Qualified Resource Areas – New Mexico” ([attachment 4](#)), QRAs can have:

- No conflict with Citizens’ Wilderness Proposals (NM_EA_11977)
- Very little conflict (NM_CT_2811 and NM_WE_1803)
- Some conflict (NM_SC_6161 and NM_SO_6155)
- Serious conflict (NM_SW_9724 and NM_SE_2086)
- Re-evaluate QRAs with serious conflicts - if a QRA has serious conflicts with protected areas and areas proposed for protection, water resources, and other environmental considerations, WGA should consider removing the QRA. ² Maps, data and additional information available at <http://www.epa.gov/renewableenergyland/>

3. Public comment should be provided as maps and data are updated and revised

We understand that WGA will be providing another comment period in April for WREZ maps and data after wildlife data and additional Exclude and Avoid data have been included. We fully support WGA providing this additional comment period - though the timeline for finalizing the WREZs is short, the inclusion of these data will have significant impact on the QRAs as they are finalized into WREZs, and it is critical that the public be provided the opportunity to comment on these changes and for WGA to fully consider any issues identified or recommendations made. Once the WREZ working groups obtain and apply the wildlife and other missing data and take a second cut at modify the existing QRAs, we suggest at least twenty-one (21) days of additional public comment at this stage. Finalizing the WREZs without providing for adequate public involvement at this stage will limit the usefulness and effectiveness of the WREZ process and could limit the amount of stakeholder buy-in for the final WREZs.

4. Additional issues for future analysis

Riparian areas and water quality and quantity

Throughout much of the Western U.S., water is a scarce resource. Our growing population, cities, and energy needs, combined with impacts from climate change, require careful planning to conserve and protect our water resources. On a regional scale, responsible renewable energy development can help protect water resources by replacing fossil fuel-based electricity generation and its attendant greenhouse gas emissions and heavy water use requirements.

However, renewable energy development can have negative impacts to water resources on a local scale. Some types of renewable energy development require large amounts of water for production, and improperly sited development can cause serious impacts to riparian areas and water quality and quantity.

We have outlined a process for “Consideration of Impacts on Water Quality and Quantity in the WREZ Process,” ([attachment 5](#)). Among the recommendations:

- Overlay the QRAs with a database/map of fully- or over-allocated groundwater and surface water supplies, as well as sensitive wetlands and riparian areas, so that both WGA and the public can understand the relationship of the QRAs to water sources
- Evaluate the Qualified Resource Areas (QRAs) in terms of both:
 - Legal and physical availability of water (ground or surface); and
 - Environmental impacts of new surface water diversions or groundwater pumping
- Identify and evaluate potential mitigation measures to protect water sources.

- Map sensitive riparian/wetland areas and categorize them as Exclusion or Avoidance areas.
- Map areas with serious water quality and quantity concerns and categorize them as Exclusion or Avoidance areas.

We understand that the timeline for completion of the WREZ process may preclude WGA from fully integrating water and riparian data into the WREZ process. At a minimum, however, we recommend overlaying the QRAs with USGS groundwater data (<http://pubs.usgs.gov/ha/ha730/gwa.html>) to begin the process of addressing water quality and quantity concerns. In addition, we hope that the WGA Wildlife Council process for identifying crucial wildlife habitat and corridors will identify sensitive riparian and wetland areas for exclusion and avoidance.

Conclusion

Identification of appropriate priority areas for renewable energy and transmission development is critical in ensuring protection of our wildlands and wildlife while meeting our energy needs and combating global warming. Development planning should be a transparent, public process which brings all affected stakeholders to the table and takes into account the socioeconomic and cumulative impacts of development. Development should be prioritized in already degraded areas which are close to existing transmission and load and have minimal environmental conflicts. Prioritizing development on these types of lands will protect natural resources and allow for faster permitting and development because conflicts will be avoided as much as possible.

Our comments are intended to assist the WGA WREZ initiative in prioritizing development of renewable energy in a manner that values our public lands, wildlife areas and other natural resources. Thank you for your consideration of these recommendations that we hope will improve the process and help ensure a smooth and timely transition to a new energy economy in the West.

Wyoming Office of State Lands

OSLI staff has reviewed the documents made available via the WGA website and offer the following comments. If you have any questions or need additional information or clarification, please contact Butch Parks, Commercial Property Manager for OS LI at 777-5762 and/or Jim Arnold, Assistant Director Real Estate & Farm Loan Division at 777-6639.

- 1) The costs portrayed under the Wind Assumptions for operations and maintenance appears significantly higher than what has been presumed by this office (\$3-5 per Mwatt-Hr versus \$18-25 per Mwatt-Hr). This may be because we have not considered all the costs. We would be interested in how these numbers were derived.
- 2) There was no Exclusion or Initial Avoidance discussion for sage grouse areas in Wyoming consistent with the Governor's Executive Order
- 3) Why would the QRA for Wyoming not consider wind classes below 5? Class 3 and 4 winds are currently being developed and available in the SW portion of the state that are closer to the anticipated load centers than higher class winds in the eastern part of the state.

- 4) It does not appear that population densities were considered in the analysis. Would it be prudent to do so given potential public responses to wind development?
- 5) Existing transmission lines are listed. Have proposed projects, that are likely to be developed, been considered?
- 6) After all other filters and exclusions have been applied, the remaining wind resource potentials are discounted to 25 percent. How is the value for Wyoming in the QRA summary determined? (Should be $127,000 \text{ MW} \times .25 = 31,750$ versus the 24,973 reported).
- 7) Should the 25 percent discount be applied to states with lower population densities as well as those with much higher population densities?
- 8) In order to improve the existing grid system, have alternative technologies, such as DC transmission, been considered? Would this be a good opportunity to evaluate alternative technologies versus those presently in use to effect an improvement of the transmission system versus status quo technology?

Wyoming Outdoor Council

Sophie Osborn

We thank the Western Renewable Energy Initiative (WREI) for this opportunity to comment on the initial steps it has taken to identify areas with high quality and developable renewable resources. We are commenting specifically on the Environment and Lands working group (E&L) products. We believe the E&L, working cooperatively with the Western Governors Wildlife Council (WGWC), has made a comprehensive assessment of those lands that should be considered “exclusion” and “avoidance” areas for Renewable Energy Zones within the Candidate Study Areas and look forward to evaluating the E&L’s compilation of sensitive wild lands and wildlife areas.

Given that stated “exclusion” lands have been selected because development of these lands is precluded by statute or by federal, state, or local designation, we have no comments on these lands other than to thank the E&L and WGWC for their thoroughness in identifying and highlighting those areas that are statutorily protected. We support the E&L’s “Initial Avoidance” Areas and urge that these become the designated “Avoidance” areas. We are particularly concerned that some entities may advocate the elimination of Areas of Critical Environmental Concern (ACECs) from this proposed list of avoidance areas and urge the WREI to maintain the inclusion of all ACECs on its avoidance list. These areas are critical to the maintenance of our natural and cultural resources. ACEC’s are defined as areas “Where special management attention is required ... to protect and prevent irreparable damage” to important resources, including fish and wildlife resources, ecological features, and historical, paleontological and archeological resources. 43 U.S.C. §1702(a). Since Congress has required that designation and protection of ACECs be given priority in Bureau of Land Management land use planning, we believe it is wholly appropriate for these lands to be considered as avoidance areas for the targeted development of renewable energy resources and urge the E&L and WGWC to retain

them as such. 43 U.S.C. § 1712(c)(3). These lands should be considered “Avoidance” areas and should not be relegated to the sensitive lands category.

We similarly believe that U.S. Forest Service inventoried roadless areas in the 10th Circuit should remain in the “Avoidance” areas category. Given that these areas remain under judicial review and have long been considered off-limits to development, we believe that it is wholly appropriate for these lands to be considered avoidance areas for the targeted development of renewable energy resources, rather than being classified merely as sensitive lands.

All other lands included in the “Initial Avoidance” areas should be retained as avoidance areas since these lands are justifiably considered inappropriate for the development of renewable energy resources. Given the importance of developing renewable energy resources for the benefit of our global climate and national energy independence, we believe it is essential to avoid the potential conflicts that would inevitably result from attempts to develop renewable energy resources on lands currently highlighted as “Initial Avoidance” areas. We feel that even if these areas are excluded, a substantial number of other high quality areas will remain available for development. We therefore urge the E&L and WGWC to include those lands selected by as initial avoidance areas on its final list of designated avoidance areas.

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Renewable Energy Systems

Carey Kling, et.al.

Renewable Energy Systems (RES) Americas Inc. appreciates this opportunity to provide the Western Governor's Association (WGA) with comments on the Western Renewable Energy Zone (WREZ) Project. RES Americas has been a leading wind energy company in the US since 1999 and developed and/or constructed 25-30% of the wind energy MWs to the U.S. grid in 2007 and 2008. In total, RES Americas has developed and/or constructed 3,500 megawatts (MW) of renewable energy in the U.S.. RES Americas is actively pursuing wind and solar projects within the WREZ Project area. The following are our comments and questions:

General WREZ Project Process

1. RES commends WGA efforts to openly seek input from a variety of stakeholder groups. Meetings and tele-conferences have been well noticed and organized. However, many attendees (particularly renewable industry participants) are only allowed to observe the conference calls and are unable to provide input. Therefore, stakeholder representation is inequitable. Additional members of industry should be invited as "representatives" rather than just "observers."
2. Comments and responses to comments should be posted to the WGA WREZ web page to facilitate the open process.
3. How will the WGA insure consistency with state initiatives (such as California's RETI process)? How will deviations be managed so as not to undermine state initiatives?
4. On one of the conference calls that RES Americas was 'observing', there was a discussion on mitigation. Mitigation should not be a part of the WREZ Project and should be addressed on a project-by-project basis under existing regulatory processes.
5. It would be very helpful for WGA to post a list of terms and definitions on the WREZ Project web page to insure a consistent understanding of terms being used by WREZ Project participants and stakeholders,.

Data Gathering and Modeling

6. RES Americas commends the breadth and depth of data gathering to identify and map areas of environmental importance. This is a huge task! However, it is important that all data used be transparent (where did it come from, how was it processed, etc.). It would be great if all maps, reports and other documents had a link to the metadata files for the data. What is the process for screening the quality of environmental data being used? A quality assurance/quality control process should be established and fully described on the WREZ Project web page.
7. Data being used to identify QRAs has the potential to be viewed by some (state and federal regulatory agencies, non-governmental organizations, NIMBY groups, etc.) as having a higher level of accuracy than is possible on large scale maps. To avoid this disclaimers, footnotes, and other warnings should be added to all products created by the WREZ Project stating that individual sites have their own unique environmental characteristics that may not be apparent at the scale or resolution used on WREZ maps. There should be a clear explanation that the data used to identify QRAs is not intended to be a constraints analysis for individual sites. Additionally it should be noted that renewable energy development outside of designated areas may be appropriate and

environmentally acceptable even if they appear to be in less preferable areas on WREZ maps.

8. WGA should provide a disclaimer stating that the QRA designations/conclusions are based on a model. Models by definition have inherent errors and are only as good as the weakest data source. WGA should include a disclaimer similar to the disclaimer contained on much of NREL's publications and maps to avoid confusion and misuse of the model results.

Exclusion and Initial Avoid List

9. The word 'Exclusion Areas' should be strictly limited to those areas that are legally regulated to not permit energy development. It would be more appropriate to use "less preferable" rather than "initial avoid list" when describing areas that are outside of the QRAs but not legally off limits.
10. The "initial avoidance list" includes Bureau of Land Management (BLM) Areas of Critical Environmental Concern (ACEC) for wind and solar development. Regarding ACECs, the WREZ Project should refer to BLM Instruction Memorandum No. 2009-043, which states, "Wind energy development is permitted in one National Conservation Area, the California Desert Conservation Area (CDCA), in accordance with the provisions of the California Desert Conservation Area Plan 1980."
11. Regarding the inclusion of 'Visual Resource Management Class I and II' in the initial avoid list should conform to BLM Instruction Memorandum No. 2009-043, which states, "The VRM management classes are not intended to be used to exclude or preclude land uses, including opportunities for development of wind energy in areas with high wind energy resource potential... The VRM management class designations must be carefully considered in areas with high wind energy resource potential (wind power class 5 and above)." Please provide documentation and regulation stating that BLM Visual Management Class I and II areas are excluded from renewable energy development. Only Class I appears to be an avoidance area.
12. The inclusion of BLM RMP designated lands which have development constraints such as 'OHV open areas' and 'Special Recreation Management Areas' should not be included in the initial avoid list as development of renewable energy may occur in these areas. And their initial avoidance could eliminate significant portions of some states where current renewable energy projects are being developed.

Generation and Transmission

13. It is RES Americas' understanding that the American Recovery and Reinvestment Act of 2009 that was signed by President Obama on February 17, 2009, included provisions for additional transmission. Will the funding designated in the act of Congress be used for any of the transmission lines be identified in this process?
14. Does the WREZ Project analysis supplement state-by-state assessments to provide a picture of potentially lower cost renewable energy generation alternatives? If so, how do the results compare?
15. How is the WREZ Project process determining the appropriate amount of transmission to build? What assumptions in generation capacity are being modeled?

16. How does the WREZ Project process compare to the Competitive Renewable Energy Zones process completed by Texas Public Utility Commission?
17. How will capacity on the new transmission lines be allocated between renewable energy and other generation types?