



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105**

Mr. Robert Hawkins
USDA Forest Service
c/o POWER Engineers, Inc.
731 Ball Road, Suite 100
Anaheim, CA 92805

Subject: Draft Environmental Impact Statement for the Barren Ridge Renewable Transmission Project, Kern and Los Angeles Counties, CA (CEQ # 20110274)

Dear Mr. Hawkins:

The U.S. Environmental Protection Agency has reviewed the DEIS for the Barren Ridge Renewable Transmission Project pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The EPA supports the project purpose to enable the delivery of renewable energy to meet the Los Angeles Department of Water and Power's Renewable Portfolio Standard and increase LADWP's system reliability and flexibility in the utilization of renewable energy sources – an important step towards accommodating renewable energy transmission and reducing the demand for traditional forms of energy production that contribute significantly to air pollution, including climate changing greenhouse gases. We also support the proposed action to minimize environmental effects by maximizing the use of existing transmission line right-of-way, and appropriate siting of infrastructure. That said, in light of the potentially large influx of renewable energy projects in the Tehachapi and Mojave Desert area that this project intends to accommodate, we are particularly concerned about direct and cumulative impacts to vulnerable aquatic, cultural, and biological resources, including threatened and endangered species.

We have rated the DEIS as *Environmental Concerns – Insufficient Information (EC-2)*. Please see the enclosed "Summary of EPA Rating Definitions." Because of the complex nature of this proposed project, including a new 61-mile transmission line, and the variety of landscapes, land uses and habitat areas that would be affected, we have identified several concerns and recommendations, summarized below. Our detailed comments are enclosed.

The EPA is concerned with the level of impacts to biological and aquatic resources that would result from Alternative 2 (Proposed Action) due, in part, to the new 200 foot wide ROW

proposed adjacent to an existing LADWP transmission line, as well as the crossing of 66 riparian conservation areas in the Angeles National Forest. To utilize the existing ROW to the maximum extent possible, we recommend a full evaluation of either an expanded 3-Circuit mitigation measure to cover the full length of the proposed new line, or a more detailed consideration of the Quad-Circuit Tower alternative, which would substantially reduce the additional ROW needed. We recommend the FEIS provide a summary of the environmental impacts from such a minimized ROW expansion alternative so that the environmental consequences are clearly understood by the decision makers and the public.

Further, we are concerned about the project's compliance with Section 404 of the Clean Water Act. We recommend the FEIS provide a discussion of Clean Water Act jurisdictional waters that could be filled by project activities, and include descriptions of type and acreage of jurisdictional waters, measures to avoid impacts, and consistency with the *Compensatory Mitigation for Losses of Aquatic Resources; Final Rule*. We are also concerned with the level of impacts from stream crossings in the Angeles National Forest and recommend clarification on the extent to which helicopter mitigation in the ANF can further reduce these impacts. The FEIS should also discuss crossings in non-National Forest Service lands and describe how spoils from construction activities will be stored and disposed to avoid environmental impacts, including aquatic resources.

To reduce impacts from helicopter emissions, we are pleased that the DEIS includes EPA's prior recommendations to utilize best available emission control technologies and schedule heavy helicopter usage primarily in the fall and winter months when ozone formation is lowest. Due to potentially high levels of emissions from construction of this project, we would like to emphasize our recommendation that the FEIS and Record of Decision include a commitment to advanced notification to sensitive receptors of potential health risks and any exposure avoidance measures they should consider during construction periods.

Additionally, as the proposed project is located partially within the Desert Renewable Energy Conservation Plan study area and may overlap with areas evaluated by the Solar Programmatic EIS, we believe it is imperative that the FEIS discuss how the proposed project will demonstrate consistency with these ongoing efforts. While we recognize the qualitative cumulative impact analysis, the DEIS does not describe mitigation measures that project proponents, other agencies, or officials can implement to reduce identified significant cumulative impacts, as advised by the Council of Environmental Quality (CEQ 40 Questions No. 19(b)).

The EPA also encourages the LADWP to commit to working with the California Public Utilities Commission and the California Independent System Operator to ensure that future decisions regarding interconnections to the project are consistent with the project purpose of delivering renewable energy. We also encourage LADWP to work closely with state and Federal agencies, and other utilities, on the development of the Desert Renewable Energy Conservation Plan to ensure coordinated transmission planning that balances the tapping of renewable sources with resource conservation and environmental protections.

The attached detailed comments provide additional information regarding the above-stated concerns, and provide additional recommendations regarding a revised environmental justice analysis to consider existing health burdens, general conformity, coordination with tribal governments, and the use of tubular steel towers to reduce visual and avian impacts. Thank you for the opportunity to review this DEIS. When the FEIS is published, please send one hard copy to us at the address above (Mail Code: CED-2). If you have any questions, please contact me at 415-972-3521, or contact Tom Plenys, the lead reviewer for this project. Tom can be reached at 415-972-3238 or plenys.thomas@epa.gov.

Sincerely,

/s/

Kathleen Martyn Goforth, Manager
Environmental Review Office

Enclosures: Summary of EPA Rating System
EPA's Detailed Comments

cc:

Lynette Elser, Bureau of Land Management
Daniel Swenson, U.S. Army Corps. Of Engineers
Charles Holloway, Los Angeles Department of Water and Power
Brian Croft, U.S. Fish and Wildlife Service
John Boccio, California Public Utilities Commission

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

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

"EU" (Environmentally Unsatisfactory)

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

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

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

"Category 2" (Insufficient Information)

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

"Category 3" (Inadequate)

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

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

U.S. ENVIRONMENTAL PROTECTION AGENCY'S DETAILED COMMENTS ON THE BARREN RIDGE RENEWABLE TRANSMISSION LINE PROJECT DRAFT ENVIRONMENTAL IMPACT STATEMENT, KERN AND LOS ANGELES COUNTIES, CA, OCTOBER 25, 2011

Alternative Analysis

To accommodate the new 230 kilovolt transmission line, the Los Angeles Department of Water and Power is seeking a Bureau of Land Management right-of-way grant and a US Forest Service Special Use Authorization for an additional 200 foot wide ROW adjacent to LADWP's existing BR-RIN ROW (at p. 2-43). While we were pleased to note that LADWP, BLM and USFS agree that Alternative 2 (Proposed Action) is both the preferred alternative and the environmentally superior alternative under the California Environmental Quality Act, EPA is concerned with the level of impacts to biological and aquatic resources that would result from construction and operation of Alternative 2 resulting, in part, from the new 200 foot wide ROW requested. Additionally, property acquisition would have to occur to secure the width of this ROW along 44 miles of private lands crossed by the project.

Recommendation:

To utilize the existing ROW to the maximum extent possible, we recommend a full evaluation of either an expanded 3-Circuit mitigation measure to cover the full length of the proposed new line, or a detailed consideration, to the greatest extent feasible, of the Quad-Circuit Tower alternative, previously eliminated from further evaluation, which would have substantially reduced the width of the additional ROW needed. We recommend the FEIS provide a summary of the environmental impacts from such a minimized ROW expansion alternative so that the environmental consequences are clearly understood by the decision makers and the public.

Waters of the U.S.

Clean Water Act Section 404

The DEIS identifies impacts to drainages, wetlands, Waters of the State, Waters of the US (WUS), and blue-line streams as "potential significant issues" for the project (p. 2-12). The DEIS also indicates a Clean Water Act Section 404 permit is anticipated (p. 1-2), and construction activities associated with the construction of the transmission line and switching stations "could impact wetlands by removing wetland vegetation and soils, or by filling wetlands with upland soils and destroying hydrological connectivity" (p. 4-531). Mitigation Measures BIO-3 and 4 (p. 4-361) describe avoidance of jurisdictional waters, commit to utilizing the appropriate State and federal permitting process, and discuss mitigating unavoidable impacts through the creation, restoration and/or preservation of suitable jurisdiction habitat; however, there does not appear to be a jurisdictional delineation or even an estimate of the acreage of different types of jurisdictional waters that could be filled by the project.

The DEIS also lacks a clear discussion of avoidance measures that would be implemented to prevent impacts and to comply with CWA Section 404(b)(1) Guidelines (Guidelines) that require selection of the *Least Environmentally Damaging Practicable Alternative* (LEDPA). For each alternative, the FEIS should: 1) quantify the extent of WUS; 2) quantify the unavoidable impacts

to waters by habitat type for each project component; and 3) describe measures to avoid and minimize project impacts. The FEIS should also provide a more detailed discussion of the availability of mitigation opportunities and compliance with the *Compensatory Mitigation for Losses of Aquatic Resources; Final Rule* (Mitigation Rule) 33 CFR Parts 325 and 332, and 40 CFR Part 230 found at: <http://www.epa.gov/wetlandsmitigation/> and at: http://www.usace.army.mil/CECW/Pages/final_cmr.aspx.

Recommendations:

Expand the FEIS discussion of impacts to jurisdictional waters to include an estimate of type(s) and acreage, and include a discussion of impact avoidance measures, mitigation availability, and compliance with the Guidelines and Mitigation Rule.

The FEIS should include a table and clear narrative on the direct, indirect/secondary and temporary impacts to waters, including wetlands.

Analysis of Alternatives – 40 CFR 230.10(a)

In order to comply with the Guidelines, the applicant must comprehensively evaluate a range of alternatives to ensure that the “preferred” alternative is the LEDPA. Identification of the LEDPA is achieved by performing an alternatives analysis that estimates the direct, indirect, and cumulative impacts to jurisdictional waters resulting from a set of on- and off-site project alternatives. Project alternatives that are not practicable and do not meet the project purpose are eliminated. The LEDPA is the remaining alternative with the fewest impacts to aquatic resources, so long as it does not have other significant adverse environmental consequences. Only when this analysis has been performed can the applicant and the permitting authority be assured that the selected alternative is the LEDPA (40 CFR 230.10(a)).

Based on information in the DEIS, it cannot be determined whether Alternative 2 is the LEDPA without a Corps’ delineation of the geographic extent of jurisdictional waters.

Recommendation:

Provide an analysis of project alternatives demonstrating compliance with the 404(b)(1) Guidelines and identification of the LEDPA, if applicable. This analysis should consider changes to the preferred alternative or application of mitigation measures that could reduce the environmental impacts. The FEIS should also contain sufficient detail to allow for meaningful comparison between alternatives.

Mitigation of Potential Adverse Impacts

If impacts to aquatic resources cannot be avoided, alternatives that minimize impacts must be fully considered. With projects such as transmission lines, there are opportunities to avoid and minimize impacts to waters through sensitive design criteria such as the placement of towers out of waters, including drainages and washes, and a reduction of the construction footprint. Additional avoidance and minimization alternatives should be explored, such as bridging and the use of at-grade crossings or Arizona crossings. Pursuant to the Guidelines, the applicant must

mitigate for unavoidable impacts to WUS. EPA offers the following recommendations to help facilitate compliance of the project with the Section 404 Guidelines:

Recommendations:

Include a mitigation plan for unavoidable impacts to WUS, as required by Corps and EPA regulations, and describe how the proposed project would meet 404 (b)(1) Guidelines, which require that projects first avoid, then minimize, and, finally, mitigate any impacts to WUS, including wetlands and other special aquatic sites.

Characterize the functions of any aquatic features that could be affected by the project that are determined not to constitute WUS, and discuss potential mitigation.

Pursuant to the Guidelines, mitigation of project impacts begins with the avoidance and minimization of direct, indirect, and cumulative impacts to the aquatic ecosystem, followed by compensatory measures if a loss of aquatic functions and/or acreage is unavoidable. Compensatory mitigation is, therefore, intended only for unavoidable impacts to jurisdictional waters after the LEDPA has been determined. For this reason, it would be premature to examine in detail any mitigation proposal before compliance with 40 CFR 230.10(a) is established.

Recommendations:

Include an outline of the requirements of a compensatory mitigation plan, and a commitment to timely implementation of a wetland/riparian mitigation plan to ensure no temporal loss of the affected habitat, as applicable.

Describe contingency measures that would be implemented should the initial plan fail to meet specified goals, and specify who will be responsible for implementing the contingency measures.

Ephemeral Washes and Other Water Resources

Ephemeral Washes

The FEIS should include additional detailed information on the functions and locations of ephemeral washes. In addition to Pine Tree Canyon and Cache Creek, we note that multiple unnamed ephemeral and intermittent drainages would be crossed between mile marker 0 and mile marker 13.2 (p. 3-194). Natural ephemeral washes perform a diversity of hydrologic and biogeochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. Healthy ephemeral waters with characteristic plant communities control rates of sediment deposition and dissipate the energy associated with flood flows. Ephemeral washes also provide habitat for breeding, shelter, foraging, and movement of wildlife. Many plant populations are dependent on these aquatic ecosystems and adapted to their unique conditions. Potential damage that could result from disturbance of flat-bottomed washes includes alterations to the hydrological functions that natural channels provide in arid ecosystems: adequate capacity for flood control, energy dissipation, and sediment movement, as well as impacts to valuable habitat for desert species.

Recommendations:

Provide, in the FEIS, additional information on the functions and locations of ephemeral washes in the project area and their hydrologic and biogeochemical roles in relationship to higher-order waters downstream.

The FEIS should commit to avoiding, if possible, or minimizing direct and indirect impacts to ephemeral streams (such as erosion, migration of channels, and local scour).

The FEIS should quantify the likely impacts to ephemeral streams from the proposed project, project alternatives, including the proposed switching stations.

Demonstrate that downstream flows will not be disrupted due to proposed changes, including from the switching stations, to any natural washes.

Stream Crossings in Riparian Areas

The proposed action (Alternative 2) would cross 66 Riparian Conservation Areas, of which 50 would be affected within the Angeles National Forest (p. 3-201). We support mitigation measure BIO-3a which indicates towers will not be constructed in riparian areas (p. 4-361) as well as General Practice-35 which would create exclusion zones when possible (p. 2-75); however, the EPA is still concerned with the potential direct impacts, such as clearing vegetation, and indirect impacts, such as sedimentation to riparian areas from road widening, that could result at these crossings. As written, the DEIS does not describe the type of crossing or provide sufficient detail on the activities at each of the 50 affected RCAs to help the reader ascertain the level of direct or indirect impacts. The DEIS also does not consider the extent to which helicopter mitigation can further reduce impacts to RCAs for the proposed action (p. 4-373).

Recommendations:

Discuss, in the FEIS, the different types of crossings and their potential impacts to RCAs in the ANF, and provide a similar discussion for crossings on non-NFS lands.

Maximize, to the extent possible, helicopter mitigation in the Angeles National Forest to further reduce impacts to RCAs as part of Alternative 2. Quantify the result of additional impact avoidance in the FEIS. Update all resource analyses to account for helicopter mitigation as an integral component of the proposed action.

Reconcile, in the FEIS, the apparent discrepancies in the number of RCAs crossed by each alternative (e.g. we note that p. 2-98 indicates Alternative 2 would only cross 21 RCAs)

Flooding and Debris Flow

The new 230 kV transmission line would result in the placement of towers within the 100 year flood hazard area. These structures could potentially impede flood flows or redirect flood flows to areas not currently within a flood hazard area by raising the base flood elevation (p. 4-532). While the DEIS includes mitigation measures HYD-5 and 6 to ensure structures are designed to

not impede or redirect direct flood flows and minimize the capture of flood debris, no additional details are provided.

Recommendation:

The FEIS should identify areas subject to flash floods where structures are likely to be placed, discuss the impacts of the project on flood flows and demonstrate how flows will not be impeded and flood debris will obstruct flows or result in scouring.

Construction spoil disposal

Project construction includes auguring for transmission tower foundations and the creation of concrete batch plants. The EPA is concerned that these activities could generate significant amounts of sediment runoff into aquatic resources. According to the DEIS, 25 to 120 cubic yards of concrete would be needed for each tower foundation, depending on the design (p. 2-58). These volumes would presumably replace similar volumes of excavated and/or augured spoils. Concrete batch plants are estimated to be approximately 2 acres each in size. The DEIS indicates spoil material would be spread around the tower site and used for fill where suitable (p. 2-58). Spoils generated from these activities could result in substantial volumes of loose sediment potentially contributing to water quality degradation and habitat impacts, as well as air quality impacts from fugitive dust. The FEIS should describe in detail what would be done with construction spoils and commit to storage and disposal methods that would avoid and minimize impacts.

Recommendation:

Describe in detail how the construction spoils will be used and how environmental impacts would be avoided.

Air Quality

Mitigation Measures

The proposed project is located in the South Coast and Mojave Desert Air Basins which are both in non-attainment for eight hour ozone (p. 3-4). The South Coast is also in non-attainment for particulate matter smaller than 10 and 2.5 microns (PM₁₀ and PM_{2.5}). Of significant concern are potential air quality impacts in the Santa Clarita region which is in extreme federal and State non-attainment for ozone. The DEIS states that daily construction emissions are expected to exceed the Air Quality Management Districts' regional planning thresholds for nitrogen oxide (NO_x) and reactive organic gases (ROGs), which contribute to ozone formation, as well as PM_{2.5}, PM₁₀ and carbon monoxide (p.4-19).

EPA supports incorporating mitigation strategies to minimize fugitive dust emissions, as well as emission controls for PM and ozone precursors for construction-related activity. We note the numerous General Practices proposed by LADWP (p. 2-72) and commend USFS and BLM for the additional mitigation measures presented in Table 4.2.1-3. We were also pleased that, to reduce helicopter emissions, BLM and USFS have adopted EPA's prior recommendations to

utilize best available emission control technologies and schedule heavy helicopter usage primarily in the fall and winter months when ozone formation is lowest.

In order to further reduce potential air quality impacts, the responsible agencies should also include a Construction Emissions Mitigation Plan and adopt this plan in the Record of Decision (ROD). In addition to measures included in the DEIS and all applicable local, state, or federal requirements, EPA recommends that the following mitigation measures be included in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of PM, NO_x, ROG_s and other toxics from construction-related activities:

Recommendations:

Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate at active and inactive sites during workdays, weekends, holidays, and windy conditions;
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions; and
- Prevent spillage when hauling material and operating non-earthmoving equipment and limit speeds to 15 miles per hour. Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:

- Plan construction scheduling to minimize vehicle trips;
- Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections (Note: The California Air Resources Board has a number of mobile source anti-idling requirements, see their website at: <http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm>);
- Maintain and tune engines per manufacturer's specifications to perform at CARB and/or EPA certification levels, prevent tampering, and conduct unscheduled inspections to ensure these measures are followed;
- If practicable, lease new, clean equipment meeting the most stringent of applicable Federal¹ or State Standards². In general, commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible³;
- Lacking availability of non-road construction equipment that meets Tier 4 engine standards, the responsible agency should commit to using CARB and EPA-verified particulate traps, oxidation catalysts and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site; and
- Consider alternative fuels such as natural gas and electricity (plug-in or battery).

¹ EPA's website for nonroad mobile sources is <http://www.epa.gov/nonroad/>.

² For ARB emissions standards, see: <http://www.arb.ca.gov/msprog/offroad/offroad.htm>.

³ Diesel engines < 25 hp rated power started phasing in Tier 4 Model Years in 2008. Larger Tier 4 diesel engines will be phased in depending on the rated power (e.g., 25 hp - <75 hp: 2013; 75 hp - < 175 hp: 2012-2013; 175 hp - < 750 hp: 2011 - 2013; and \geq 750 hp 2011- 2015).

Administrative controls:

- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking;
- Develop a construction traffic and parking management plan that maintains traffic flow and plan construction to minimize vehicle trips; and
- Identify sensitive receptors in the project area, such as children, elderly, and infirmed, and specify the means by which you will minimize impacts to these populations (e.g. locate construction equipment and staging zones away from sensitive receptors and building air intakes).

Public Health and Sensitive Receptor Notification

In light of the projected daily emission exceedances, the FEIS should include a detailed discussion of the potential health effects of these emissions to sensitive receptors and consider a mitigation measure that would inform sensitive receptors of these potential risks in advance of construction. This information should be provided concurrently with advanced notification of construction for noise impacts.

Recommendations:

Expand the air quality impact analysis to include a detailed discussion of the potential effects to sensitive receptors from exposure to PM₁₀ and PM_{2.5}, as well as toxic air contaminants.

Consider a mitigation measure that would provide advanced notification to sensitive receptors of the potential effects of PM₁₀ and PM_{2.5}, as well as toxic air contaminants.

General Conformity

The FEIS should ensure that the direct and indirect emissions from both the construction and the operational phases of the project conform to the approved State Implementation Plan and do not cause or contribute to violations of the NAAQS. The DEIS notes: "In addition to the regional and localized significance thresholds, the General Conformity Rule applicability emissions thresholds (also referred to as *de minimis* thresholds) are shown in Table 4.2.1-2 and would apply to those portions of the BRRTP that require Federal approval and would be in Federal nonattainment areas" (p. 4-9). The DEIS does not clearly state how the estimate of direct and indirect emissions attributed to the proposed action for general conformity purposes is consistent with the definition of "direct emissions" and "indirect emissions" in 40 CFR 93.152.

In addition to working with regional air quality agencies, the FS and BLM should consider consulting with the EPA prior to finalizing your general conformity determination. To consult with the EPA, please contact Dawn Richmond of the Air Division at (415) 972-3097, or by email at Richmond.Dawn@epa.gov.

Recommendation:

The FEIS should provide a detailed discussion on how the estimate of direct and indirect emissions attributed to the proposed action for general conformity purposes is consistent with the definition of "direct emissions" and "indirect emissions" in 40 CFR 93.152. In particular, please note that the emissions associated with reasonably foreseeable action-related activities occurring off Federal lands may be excluded from the general conformity evaluation only if the Federal action agency lacks the authority to practically control these emissions (such as through conditions on permits) or the agency lacks continuing program responsibility for such emissions. The FEIS should, therefore, explain in detail any limits to BLM's and USFS' authority with respect to such emissions.

Biological Resources

The DEIS indicates a Biological Opinion may be needed for impacts to habitats and avian species, however, it is unclear whether a BO is currently under development specific to plants, terrestrial species and federally listed avian species (p. 4-364, 4-449, 4-451). It is also unclear whether USFWS or the California Department Fish and Game have reviewed or commented on the adequacy of surveying and monitoring of biological resources conducted to date. We do note that formal consultation is being conducted with USFWS for impacts to condors (p. 453). The EPA is concerned with potential impacts to vegetative communities and to threatened and endangered species, including the desert tortoise. We urge USFS and BLM to coordinate on the timing of the FEIS and a comprehensive BO. The BO will play an important role in informing the decision on which alternative to approve and what commitments, terms, and conditions must accompany that approval.

Recommendations:

We urge BLM to coordinate with USFWS on the timing of the FEIS and the Biological Opinion. At minimum, the FEIS should provide an update on the consultation process. We strongly recommend including the Biological Opinion as an appendix.

Mitigation and monitoring measures that result from consultation with USFWS to protect sensitive biological resources, including desert tortoise, golden eagle, least Bell's vireo, southwestern willow flycatcher, and the California condor, should be included in the FEIS and, ultimately, the ROD.

Discuss, in the FEIS, coordination with USFWS and California Department of Fish and Game and their review of the surveying, monitoring, and reporting protocols completed to date. Include a commitment to consistent application of USFWS and CFG supported methods in future protection and mitigation efforts.

Purpose and Need

The California Public Utilities Commission and LADWP should work with the California Independent System Operator to ensure the project's purpose is met. The EPA supports the project purpose to enable the delivery of renewable energy to meet LADWP's RPS and increase

their system reliability and flexibility in the utilization of renewable energy sources. The EPA also supports the appropriate development of renewable energy resources and reducing the use of fossil fuels for energy development as a critical step towards reducing major sources of greenhouse gasses that contribute to climate change. The proposed project would provide an important element toward overcoming transmission barriers to reaching renewable energy sources.

It is our understanding that the CAISO will ultimately decide what energy projects are permitted to connect to the proposed project, and that interconnection requests to the CAISO are approved based on the order they are received; therefore, there is currently no guarantee against other types of energy projects connecting prior to solar and wind projects.

Recommendations:

We strongly encourage the CPUC and LADWP to work with the CAISO to ensure that interconnection approval decisions would be consistent with the project purpose and would maximize, if not solely permit, wind and solar energy transmission.

The FEIS should include a discussion of the application and decision making process used by the CAISO to determine transmission line connection permits.

Cumulative Impacts and Connected Actions

Although some of the wind and solar projects proposed in the Tehachapi and Mojave Desert area may be located on private and State trust lands, while others are proposed on federal BLM lands, it appears many would be dependent on the federal permitting of the Barren Ridge transmission line and the construction and operation of the electrical switchyards. Thus, the impacts of constructing and operating the numerous wind and solar projects are considered relevant to BLM's and USFS's approval or denial of the proposed project. Further, potential impacts to condors, golden eagles and other avian species could hinder the approval of a number of the proposed wind projects in the Tehachapi area.

We support a proxy analysis for the impacts of proposed wind and solar based on the size, location, and resource impacts for the number of solar and wind projects the Barren Ridge Transmission Line would accommodate; however, it is difficult to evaluate the full extent of impacts of the proposed action based on the analysis in the Cumulative Effects chapter. Many of the potential cumulative impacts for hydrology, water and air quality, noise, biological and visual resources, and threatened and endangered species, such as the desert tortoise, would likely be significant and unavoidable due to the level of past, present, and reasonably foreseeable construction and development projects in wind and solar resources areas at the northern end of the proposed transmission line. While we recognize the qualitative cumulative impact analysis, the DEIS does not quantify impacts nor does it describe or evaluate mitigation measures to avoid or minimize the identified significant cumulative impacts.

Recommendations:

The FEIS should quantify cumulative impacts across resources areas, as well as describe and evaluate feasible mitigation measures to avoid and minimize the identified adverse

cumulative impacts. Although these mitigation measures may be outside the jurisdiction of the lead agencies or project proponents, describing them in the FEIS would serve to alert other agencies or officials who can implement these extra measures (CEQ 40 Questions No. 19(b)). Potential mitigation measures to evaluate include phasing project construction schedules, establishing a Multi-Species Habitat Conservation Plan for the region, and promoting smart growth development practices to avoid and minimize impacts of growth that may be induced by this project.

The FEIS should discuss the potential impacts on the proposed project under the scenario that the expected wind projects in the Tehachapi area are not permitted due to potential impacts to condors and golden eagles. We note that six golden eagles have been killed by LADWP's Pine Tree Wind Farm to date.

Consistency of the Proposed Project with the California Desert Renewable Energy Conservation Plan and the Solar PEIS

The California DRECP, scheduled for completion in December 2012, is intended to advance State and federal conservation goals in the desert regions while also facilitating the timely permitting of renewable energy projects in California. The DRECP will include a strategy that identifies and maps areas for renewable energy development and areas for long-term natural resource conservation. The Solar Programmatic EIS, scheduled for completion in Summer 2012, is being developed by the DOE and the BLM and is intended to apply to all pending and future solar energy development applications. The proposed project is partially located in the DRECP study area and may overlap with areas studied in the PEIS.

Recommendation:

We recommend that USFS and BLM elaborate on the DRECP and Solar PEIS in the FEIS; explain how BLM and USFS will ensure the proposed project's consistency with these efforts; and include up-to-date maps illustrating the current boundaries and conceptual alternatives. The FEIS should acknowledge that additional requirements and/or conditions may apply under the DRECP and the Solar PEIS.

Environmental Justice

The Environmental Justice section of the DEIS does a good job of looking at demographic and income data of the general population that resides along the proposed transmission alignment; however, the DEIS lacks any discussion of whether the impacts of the project would be appreciably more severe to any of the existing minority communities. The FEIS should discuss whether any of the EJ communities identified could be disproportionately affected by project impacts due to existing burdens that may already be affecting those communities.

Recommendation:

Revise the EJ analysis to consider whether any of the minority communities along the project alignment would be disproportionately affected due to existing burdens that may already be more significant in those communities than in other affected communities.

Cultural Resources and Coordination with Tribal Governments

Tribes have expressed concerns regarding large-scale solar and wind projects and it is especially important that effective tribal consultation occur for a project providing potential access to vast solar and wind resources in the Tehachapi and Mojave Desert area. Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (November 6, 2000), was issued in order to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States government-to-government relationships with Indian tribes.

Recommendation:

The FEIS should discuss how the any concerns raised by Tribes were addressed and resolved. Provide an update on the status of the Programmatic Agreement and whether coordination with Tribes is occurring. The FEIS should indicate whether the Tribes are in agreement that the Programmatic Agreement will reduce impacts to prehistoric and sacred sites to less than significant. We recommend that all measures to reduce impacts to tribal and cultural resources be adopted in the ROD.

Consultation for tribal cultural resources is required under Section 106 of the National Historic Preservation Act, which requires a federal agency, upon determining that activities under its control could affect historic properties, to consult with the appropriate State Historic Preservation Officer/Tribal Historic Preservation Officer (SHPO/THPO) and consider the effects of its actions on cultural resources, following regulation in 36 CFR 800. Under NEPA, any impacts to tribal, cultural, or other treaty resources, and measures that could mitigate those impacts, must be discussed in the EIS.

Executive Order 13007, *Indian Sacred Sites* (May 24, 1996), requires federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian Religious practitioners, and to avoid adversely affecting the physical integrity, accessibility, or use of sacred sites. It is important to note that a sacred site may not meet the National Register criteria for a historic property and that, conversely, a historic property may not meet the criteria for a sacred site.

Recommendation:

The FEIS should address Executive Order 13007, distinguish it from Section 106 of the NHPA, and discuss how the BLM will avoid adversely affecting the physical integrity, accessibility, or use of sacred sites, if they exist.

Tower Design

The proposed project would primarily use lattice steel towers (LSTs) instead of tubular steel towers (TSPs). Reduced bird-kills, as well as reduced visual impacts, are noted benefits of TSPs. We also note that TSPs have been proposed by LADWP as an available mitigation structure where appropriate to reduce potential impacts, such as conflicts with cultivation on agricultural lands (p. 2-51). The EPA supports the use of the TSPs over LSTs for all the reasons above and is

pleased the 3 Circuit mitigation measure specifies the use of TSPs for towers that would be in close proximity to the existing residential area of Green Valley.

Recommendation:

Consider utilizing TSPs for the length of project, and, at a minimum, include a mitigation measure that specifies the use of TSPs in natural settings near areas frequented by recreational users, such as in proximity to the Pacific Crest Trail, and near residences in close proximity to the project.

Noise

The FEIS should explore and describe additional mitigation measures to reduce or screen mobile equipment noise. Mobile construction equipment activities would violate the Los Angeles County noise standards even with proposed mitigation measures (p. 4-74).

Recommendation:

We recommend the project proponents and lead federal and State agencies explore additional mitigation measures to reduce or screen mobile equipment noise. If these measures are technologically and economically feasible, the FEIS should describe and consider implementation of the measures.