

IV.26 OTHER NATIONAL ENVIRONMENTAL POLICY ACT CONSIDERATIONS

Each chapter in Volume IV describes the effects of BLM’s Proposed Land Use Plan Amendment (LUPA) alternatives for each renewable energy technology type (i.e., solar, wind, and geothermal) and associated transmission facilities. Volume IV resource chapters also compare the impacts of each alternative with those of the Preferred Alternative. Such analyses satisfy many of the requirements under the National Environmental Policy Act (NEPA); however, some topics considered under these laws are independent of a specific resource. These other subject areas are addressed separately in this chapter.

NEPA regulations (40 Code of Federal Regulations [CFR] 1500-1502 et seq.) require that an EIS discuss and analyze the following:

- The relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity (40 CFR 1502.16).
- Any irreversible or irretrievable commitments of resources, if the project is developed (40 CFR 1502.16).
- Energy requirements and the conservation potential of various alternatives and mitigation measures (40 CFR 1502.16[e]).
- Indirect effects, including growth-inducing effects (40 CFR 1502.16[b], 1508.8[b]).
- Possible conflicts between proposed actions and the objectives of federal, state, local, or tribal land use plans, policies, and controls (40 CFR 1502.16[c]).

The following sections address these NEPA requirements.

IV.26.1 Relationship of Short-Term Uses of the Environment and Long-Term Productivity

NEPA regulations (40 CFR 1502.16) and the BLM NEPA Handbook (H-1790-1) require discussion of the relationship between short-term uses of the human environment and the maintenance and enhancement of long-term productivity, should a project be developed.

For purposes of this discussion, “short term” refers to the project construction period—the multiyear period when (1) individual renewable energy and transmission projects are built, (2) habitat preservation and management designations are developed, and (3) other related actions are undertaken. “Long term” refers to the indefinite period beyond initial facility construction. It includes ongoing operations, maintenance, and decommissioning.

The specific impacts of implementing the Proposed LUPA would vary in type, intensity, location, and duration, depending upon activities occurring at any given time. Implementation of the LUPA would unavoidably require trade-offs between short-term uses of the environment and long-term productivity.

Implementing the Proposed LUPA would accelerate attaining both the state's short-term and long-term renewable energy goals and habitat preservation and management objectives, but at the expense of creating some long-term impacts.

Short-term impacts include:

- Economic losses from changes in recreational uses and other potential alternative uses of the land.
- Construction impacts such as noise, dust, traffic delays, detours, and nesting bird disturbances.
- Recreational impacts such as reducing or eliminating access to certain lands.
- Air quality impacts, including exceeding state and federal emission standards.

Short-term benefits include:

- Increased jobs and revenue generated during construction.

Long-term impacts include:

- Loss of plant and wildlife resources.
- Loss of grazing land and mineral resources.
- Loss of open space.
- Loss of visual quality.
- Increased noise (primarily at wind or geothermal facilities).
- Consumption of construction materials and energy to build and operate facilities.
- Loss of or restricted access to cultural and archaeological sites.

Long-term benefits include:

- Achieving the state's renewable energy production goals.
- Access to renewable energy supplies.
- Increased protection for certain habitats.

- Designation of additional public lands for recreation and for limited development.
- Designation of additional public lands for conservation purposes such as National Conservation Lands, Areas of Critical Environmental Concern, and wildlife allocations.

Under the No Action Alternative, without the LUPA, projects would receive approvals and permits through existing programs, in a manner consistent with past procedures and programs. Some of these programs and their related policies would restore or preserve sensitive habitat through mitigation requirements, and some could cause some of the losses listed earlier. However, the No Action Alternative, which would perpetuate the status quo, would neither provide the LUPA's comprehensive approach to project siting nor minimize adverse impacts to habitats and species in the DRECP area.

IV.26.2 Irreversible and Irretrievable Commitment of Resources

NEPA regulations (40 CFR 1502.16) and the BLM NEPA Handbook (H-1790-1) require discussions of both adverse effects that cannot be avoided, and irreversible and irretrievable commitments of resources (assuming a project is developed). Adverse effects are summarized in the Executive Summary and discussed in detail in individual chapters within Volume IV.

Generally, irreversible and irretrievable commitments of resources cannot be changed once a change is made. A change is irreversible when an action uses or alters a resource so that restoration of that resource to its original condition is not possible, even with mitigation. An irreversible commitment of resources would occur when the direct or indirect effects of a project limit future land use options, or when resources are either removed or consumed so that they are no longer available for future use.

Construction of renewable energy projects under the LUPA or in the No Action Alternative would require amendments to existing plans, policies, and land use designations. While the Proposed LUPA would streamline the permitting of renewable energy and transmission facilities, supplemental project-level NEPA documents would address consumption of some resources specific to each project, including:

- Land altered permanently and occupied for an extended period by facilities developed for renewable energy production and transmission.
- Land permanently set aside for habitat conservation and preservation.
- Nonrenewable energy (fossil fuels and other sources of nonrenewable electricity), oils, and lubricants used (1) in the operation of equipment and vehicles during construction, ongoing facility operations, and maintenance; and (2) in the

production and shipping of glass, wire, concrete, aggregate, steel, and other construction materials.

- Consumption of raw materials to produce wire, glass, concrete, aggregate, steel, and other materials required for the construction of photovoltaic panels, heliostats, wind turbines, foundations, structures, fencing, and other energy-capturing and electric transmission project components.

The construction and operation of renewable energy projects would commit land to new uses for extended periods. This represents a long-term, indeterminate commitment of land to these uses, and decreases the amount of land available for other uses. On the other hand, public access, which could cause land damage, could be limited to authorized personnel, so disturbance of these lands would be reduced.

Physical disturbance of the land surface and subsurface through grading or other means would severely alter or destroy existing site conditions. Land surface and subsurface characteristics would be permanently altered, and species currently residing on or otherwise using the site would be displaced. With decommissioning and removal of facilities, the landscape could not be fully restored to its pre-project condition. Even with implementation of a post-decommissioning restoration effort, re-establishment to pre-project conditions (e.g., desert pavement) could take centuries if not millennia.

Under the Proposed LUPA, certain public lands would be conserved as habitat for various species, as recreation areas, or as places of cultural and tribal importance. More restrictive designations on certain lands would limit land use for other purposes and limit types of access on these lands. Specific restoration and mitigation requirements for individual projects have not been specified since their precise locations have not yet been identified; therefore, although conservation may be required as mitigation, it is not possible to quantify the areal extent or locations of specific habitats on private land that would be preserved through these actions. This would depend upon both willing sellers and the suitability of the land for intended conservation and mitigation.

Implementation of the Proposed LUPA and the subsequent construction of renewable energy and transmission facilities would possibly require time and expenditures from jurisdictional agencies for (1) oversight and inspections during project construction; (2) agency-related activities associated with project operations, maintenance, and decommissioning; and (3) the protection, operation, and periodic maintenance of conserved habitat areas. If ongoing funding for these long-term agency activities is not specified and provided as part of a project's approval process, future generations could be obligated to meet these ongoing expenditures.

IV.26.3 Energy Requirements and Conservation Potential of Various Alternatives and Mitigation Measures

NEPA also requires discussion of energy requirements and the conservation potential of alternatives and mitigation measures (40 CFR 1502.16[e]). All of the LUPA's action alternatives have essentially the same energy requirements during construction and operation of renewable energy and transmission facilities. The LUPA identifies areas suitable for project development, but does not require that they be built. If built, these projects would require energy to produce and deliver construction materials, prepare project sites, and build the facilities.

While renewable energy facilities do not reduce the total number of kilowatt hours of electricity used per capita, displacing some fossil-fueled generation reduces the per capita consumption of energy from nonrenewable sources. A key goal of the LUPA is to streamline the siting and construction of renewable energy and transmission projects by systematizing the permitting process. Under the LUPA, these projects may come on line sooner than without the Plan. As a result, earlier generation of electricity from renewable resources avoids additional consumption of nonrenewable fossil fuels that would have been needed to produce an equivalent amount of electricity.

During project site preparation, energy will be needed to power equipment and vehicles, deliver building materials, and build the facilities. The State of California and the U.S. Environmental Protection Agency have jointly established operational efficiency and emissions standards and a certification program for vehicles and engines used in off-road diesel-fueled construction equipment. By improving equipment efficiency, less fuel is required per unit of work when compared with older, less efficient equipment. By requiring that equipment used during project construction meet current fuel-efficiency standards, individual renewable energy projects would in turn be fuel efficient during construction. Limiting idling time for construction equipment, trucks, and vans would also reduce fuel consumption.

Overall, implementation of the LUPA would further California's statewide goal to increase renewable energy production in several key respects. The LUPA would provide clarity to potential project developers by streamlining the development process on BLM land from beginning to end: outlining the permitting process, clearly showing (in advance) locations designated for development, and fulfilling mitigation requirements.

California has many programs in place to reduce energy demand by reducing usage and decreasing demand. A few examples include enhanced efficiency of new buildings, installation of solar panels, higher efficiency standards for electrical equipment and appliances, and increased consumer awareness of energy usage. Increasing the percentage of

electricity generated from renewable energy sources strengthens and complements all of these conservation and efficiency programs. More power from renewable sources is a critical component of California's progressive, overall strategy to reduce fossil-fuel dependence and the related need to build more fossil-fueled power plants.

California leads the nation with the lowest per capita consumption of electricity of all the states. However, with continuing population growth and an expanding economy, California's need for additional power continues. While per capita consumption has not increased, total demand continues to rise. Efficiency and conservation help offset increased energy demand, but are not sufficient to meet it; new power sources are also needed to meet demand. In recognition of this need, state law now requires that statewide energy demand be met with increasingly large percentages of renewable energy resource generation.

Adoption of the Preferred Alternative or one of the action alternatives increases the likelihood that renewable energy facilities will be built and on line sooner than they would be without adoption of a LUPA. Although state and federal policies and programs would continue to encourage development of renewable energy facilities under the No Action Alternative, projects may take longer to come on line, requiring the generation of more fossil-fueled energy in the interim.

IV.26.4 Indirect Effects Including Growth-Inducing Effects

NEPA requires an analysis of indirect effects, including growth-inducing effects (40 CFR 1508.8[b]). Indirect effects include induced changes in patterns of land use, population density or growth rates and related effects on air, water, and other natural systems, including ecosystems.

As described in Chapter IV.23, Socioeconomics and Environmental Justice, the adoption of the LUPA would not cause permanent population growth, either directly or indirectly. While constructing renewable energy and transmission facilities is labor intensive, it is of short duration. During construction, there would be a short-term but multiyear increase in the need for local temporary housing. Not all labor needs are likely to be met by workers already located within commuting distance of a project site, so construction would require in-migration of workers needing short-term or temporary housing. Typically, such housing is in trailers, hotels, or in rented houses or rooms in nearby communities. Crews experienced in remote-site facility construction often bring their own trailers to a project site for the duration of the work, then return to their permanent homes upon completion of that work. Families of these workers typically do not relocate for short-term projects. Operation and maintenance of new generation facilities would require minimal permanent staff. There should be little to no need for additional temporary or permanent housing, and therefore no significant increase in permanent populations.

Respective resource topic chapters in Volume IV analyze the direct and indirect effects of renewable energy project development. Examples of indirect effects include increased demand for fuel, food, lodging, and other locally available materials. These increases, limited to the construction period, are not expected to permanently increase demand for new public facilities or businesses.

IV.26.5 Possible Conflicts between Proposed Actions and the Objectives of Federal, State, Local, or Tribal Land Use Plans, Policies, and Controls

NEPA requires a discussion of possible conflicts between a proposed action and the objectives of the land use plans, policies, and controls for the area concerned (40 CFR 1502.16[c]). Where an inconsistency exists, the EIS is to describe the extent to which the agency would reconcile the proposed action with the approved State or local plans and laws (40 CFR 1506.2[d]). The LUPA applies only to BLM-administered lands. Therefore, as a land use plan amendment, which must adhere to all applicable federal laws, regulations, and requirements, by definition the LUPA is not in conflict with the objectives the objectives of federal land use plans, policies, and controls. State, local, and tribal land use plans are not applicable.

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