

SOLAR POWER PROJECT BRIEFING PAPER  
FOR THE OFFICE OF THE SECRETARY, DEPARTMENT OF THE INTERIOR

State Office: California State Office    Serial Number: CACA-048880

Project Name: Genesis Solar Energy Project (GSEP)

Field Offices and Counties involved: Palm Springs-South Coast Field Office, Riverside County

The California Energy Commission (CEC): The CEC approved applicant's Application for Certification on 9/29/10

Other agencies part of the project and/or decision: Department of Energy, Fish & Wildlife Service, California Energy Commission, and California Department of Fish & Game.

Summary of Preferred Alternative

Genesis Solar, LLC, a wholly owned subsidiary of NextEra Energy Resources, LLC, submitted a right-of-way (ROW) application CACA-048880 to the Bureau of Land Management (BLM) to develop the proposed GSEP, a solar thermal parabolic trough facility capable of generating 250 megawatts (MW) nominal of solar power on 4,640 acres of public land. The preferred alternative is the issuance of a ROW lease/grant on 1,949.53 acres with a limit of 1,746 acres of permanent disturbance. The project will consist of two adjacent and independent power block units of 125 MW nominal capacity each and will be built in two phases. Phase I will consist of the western powerblock, access road, natural gas pipeline, fiber optic lines, and an electric transmission line; Phase II will consist of the eastern powerblock.

Both phases will share the following onsite facilities: administration building, parking area, maintenance building, switchyard, two evaporation ponds, surface water control facilities, access and maintenance roads (dirt, gravel or paved), perimeter fencing, central gas pipeline, a distribution line, fiber optics line, water wells, and temporary construction laydown areas. Shared offsite facilities include access to the site, a distribution line, gas pipeline, above and below-ground fiber optic lines, and a new 10 mile single-circuit 230 kilovolt (kV) generation-tie (gen-tie) line.

Summary of Transmission

The 230 kV gen-tie line will be a ROW routed southeasterly from the powerblock and eventually connecting to the existing 230/500kV Colorado River Substation via the existing Blythe Energy Project Transmission Line between the Julian Hinds and Buck substations. The California Independent System Operator has conducted an Interconnection Study and determined that the GSEP's power can be fully delivered without overloading the existing transmission system.

Summary of Technology

The GSEP utilizes solar parabolic trough technology to generate electricity. With this technology, arrays of parabolic mirrors collect heat energy from the sun and refocus the radiation on a receiver tube located at the focal point of the parabola. A heat transfer fluid (HTF) is heated to high temperature (740 degrees Fahrenheit) as it circulates through the receiver tubes. The heated HTF is then piped through a series of heat exchangers, where it releases its stored heat to generate high-pressure steam. The steam is then fed to a traditional steam turbine generator, where electricity is produced. The preferred alternative utilizes dry-cooling technology to minimize impacts to water resources.

Summary of Process

The EIS considered six alternatives including the Agency preferred alternative, including:

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1. The project as proposed by the applicant (250 MW, 4,640 acres water cooled facility - the applicant revised the project to a dry cooled facility and a smaller footprint as the environmental review process proceeded)
2. A Dry-Cooling Alternative (250 MW, 1,746 acres) (Agency preferred alternative)
3. A Reduced Acreage Alternative (125 MW, 950 acres)
4. No Action Alternative A (no ROW grant and no California Desert Conservation Area (CDCA) Plan Amendment)
5. No Action Alternative B (no ROW grant, but amend the CDCA Plan to make the project site unavailable for any type of solar development)
6. No Action Alternative C (no ROW grant, but amend the CDCA Plan to make the project site available for any type of solar development)

Important dates for this project are as follows:

- 04/09/2010: Notice of Availability and Draft EIS
- 08/27/2010: Notice of Availability and Final EIS
- 09/27/2010: End of protest and comment period
- Dec. 2010: Planned commencement of construction
- May 2013: Target for Unit One to begin sending power to the grid
- April 2014: Target for Unit Two to begin sending power to the grid

Following publication of the Final Environmental Impact Statement (EIS), the BLM received three timely protests on its decision to amend the CDCA Plan from the following parties/groups: Natural Resources Defense Council, Sierra Club, The Wilderness Society, Defenders of Wildlife (a single protest that has now been withdrawn), the Center for Biological Diversity, and California Unions for Reliable Energy (CURE).

In addition, during the 30-day comment period that was concurrent with the protest period, the BLM received ten comments. The comments did not raise additional issues on the Final EIS from those previously raised on the Draft EIS. Responses to comments can be found in Appendix 1 of the ROD.

#### Summary of Protests

Three parties submitted letters protesting the Genesis Plan Amendment/Final EIS. All protesting parties had standing and raised valid protest issues. The Natural Resources Defense Council, Defenders of Wildlife, Sierra Club, and The Wilderness Society withdrew their joint-protest on October 22, 2010.

Issues raised in the letters included the following:

#### **Compliance with NEPA:**

- Consideration of system upgrades as connected actions.
- The BLM failed to consider that the Plan Amendment would approve “all other types of solar energy development” in the area.

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- Failure to include consideration of a reasonable range of alternatives, including distributed generation and off-site alternatives on private lands or on previously disturbed or degraded lands.
- Failure to adequately identify and analyze impacts to rare plants and the Couch's spadefoot toad.

**Consistency with the CDCA Plan:**

- Plan Amendment is inconsistent with the CDCA Multiple Use Class – Moderate Use designation ('a controlled balance between higher intensity use and protection of public lands').

**Cultural Resources:**

- The BLM failed to take a "hard look" at cultural resources within the Project site and its area of impact, as required by NEPA.

Based on our analysis, the BLM has determined that this plan complies with applicable law, regulation, and policy. Thus, no changes were needed to the CDCA Plan Amendment decision, and the protests were denied.

Summary of Major Issues

Following the Draft EIS and Final EIS comment periods, the BLM identified the main concerns regarding this project as follows:

1. Wildlife Resources –Habitat types impacted by the proposed GSEP include creosote bush scrub, ephemeral drainages and stabilized and partially stabilized sand dunes. The GSEP would result in the loss of marginal unoccupied desert tortoise habitat which will be minimized by the 1:1 compensation. The US Fish & Wildlife Service Biological Opinion will be attached as an appendix to the ROD and the terms and conditions will be added to the right-of-way requirements.
2. Cultural Resources – Consultation with federally-recognized Indian tribes and with the California State Historic Preservation Office (SHPO) has been completed. Pursuant to Section 106 of the National Historic Preservation Act, the BLM has prepared a Programmatic Agreement (PA) in consultation with the Advisory Council for Historic Preservation, SHPO, CEC, and interested tribes (including tribal governments as part of government-to-government consultation) to establish a process for consultation, review, and compliance with the National Historic Preservation Act. Resources documented include prehistoric-to-historic period Native American archaeological sites and historic-period military training sites. The PA was signed on October 7, 2010 and is attached to the ROD.
3. Water Resources – Construction activities for the GSEP Dry Cooling Alternative (Agency Preferred Alternative), expected to last 39 months, would result in the pumping/consumption of 616 to 1,368 acre feet of groundwater per year. Operations associated with the Dry Cooling Alternative would consume approximately 218 acre feet of groundwater per year. This would not exceed the groundwater basin's positive yearly balance of 2,608 acre feet per year. During construction, operation, and decommissioning of the GSEP, relatively minor impacts would result for surface water quality, groundwater quality, groundwater level, and

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drainage and flooding. Implementation of Bureau and CEC required mitigation measures including modeling, monitoring, and off site mitigation would reduce impacts on water resources.

4. Visual Resources – The Dry Cooling Alternative would be dissimilar to the surrounding natural landscape. The large fields of parabolic mirrors would produce glint and glare at various times of the day. The facility would also include 120-foot cooling towers. These impacts would affect travelers along the Interstate 10 and nearby local roads, users of Wiley's Well Rest Area, and dispersed recreational users in the area. Required mitigation measures, which require surface treatments for solar panels, revegetation of disturbed areas to the greatest practical extent, and dust control, are required to minimize visual intrusion and color contrasts.

Summary of Mitigation Measures and Monitoring

The following measures will be implemented to avoid, minimize, rectify, reduce, or compensate for adverse impacts of the Genesis Solar project:

- Funding for acquisition and enhancement of 1,870 acres of habitat suitable for Desert Tortoise.
- Funding for acquisition and enhancement of 136 acres of equivalent lands to offset impacts to vegetation communities and habitat suitable for Mojave fringe-toed lizard (CEC).
- Funding for acquisition and enhancement of 111 acres from impacts to Waters of the State (CEC).
- Annual inventories during construction for golden eagles and a monitoring and management plan if eagle nests are detected within 1 mile of the project.
- Other management Plans to include: Avian Protection Plan, Weed Management Plan, Raven Management Plan, and a Worker Environmental Awareness Program.
- Further CEC requirements to mitigate impacts to state species of concern, including the western burrowing owl.
- CEC license includes 211 Conditions of Certification.

Summary of Project Costs

- Genesis Solar project represents approximately \$1 billion in project costs.
- The DOE loan guarantee program could provide up to 80% of project costs in loan guarantees – up to \$800,000,000 (application pending– DOE decision expected early 2011).
- Genesis Solar, LLC will get 30% of project costs in investment tax credit funding – this equals approximately \$300,000,000.
- Genesis Solar, LLC will be responsible for paying back approximately \$500,000,000 in loans
- Initial Bond Payment will be \$275,000
- Initial Base Rental (for Oct, Nov and Dec, 2010) will be \$102,031.
- Annual Base Rental (Jan-Dec 2011) will be \$612,066.
- Total Reclamation Cost Estimate is \$2,730,000.

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Summary of Potential Project Benefits

Approval, construction and operation of this project are anticipated to create a number of benefits in the public interest, including, but not limited to:

- Renewable Power Supply: The 250 MW nominal of clean electricity is estimated to power over 75,000 homes
- Job Creation: Estimated creation of 646-1,085 (at peak) temporary direct construction positions and 65 direct permanent positions
- Revenue Generation: Estimated \$628,000 in annual property taxes paid to Riverside County. Estimated \$14.5 million filtered into the local economy during construction for locally purchased materials and \$6.5 million annually in overall economic output once the project is up and running

Summary of Agency Actions

1. The California Energy Commission (CEC) – The CEC approved applicant’s Application for Certification on 9/29/10.
2. U.S. Army Corps of Engineers (ACOE) – The Corps provided a No Jurisdiction Determination for the GSEP project on 05/09/10.
3. The U.S. Fish and Wildlife Service (FWS) – The FWS will issue a Biological Opinion in late October. All mitigation measures associated with BO will be added as terms and conditions in the right-of-way lease/grant. The Biological Opinion will be attached as an appendix to the ROD.
4. The State Historic Preservation Officer (SHPO) – Section 106 Consultation, a complete Programmatic Agreement is attached as an appendix to the ROD.
5. Mojave Desert Air Pollution Management District (MDAPMD) – The MDAPMD issues the federal New Source Review permit under 40 CFR Parts 52 and 60.

## **DECISION MEMORANDUM FOR THE SECRETARY**

**FROM:** Robert Abbey  
Director, Bureau of Land Management

**SUBJECT:** Record of Decision – Genesis Solar Energy Project (CA)

### **INTRODUCTION**

Genesis Solar, LLC, a wholly owned subsidiary of NextEra Energy Resources, LLC, submitted a right-of-way (ROW) application CACA-048880 to the Bureau of Land Management (BLM) to develop the proposed Genesis Solar Energy Project (GSEP), a solar thermal parabolic trough facility capable of generating 250 megawatts (MW) nominal of solar power on 4,640 acres of public land. The preferred alternative is the issuance of a ROW lease/grant on 1,949.53 acres with a limit of 1,746 acres of permanent disturbance. The project will consist of two adjacent and independent power block units of 125 MW nominal capacity each and will be built in two phases. Phase I will consist of the western powerblock, access road, natural gas pipeline, fiber optic lines, and an electric transmission line; Phase II will consist of the eastern powerblock. Development of the GSEP also requires amendment of the California Desert Conservation Area (CDCA) Plan to identify the site as suitable for solar development.

Both phases will share the following onsite facilities: administration building, parking area, maintenance building, switchyard, two evaporation ponds, surface water control facilities, access and maintenance roads (dirt, gravel or paved), perimeter fencing, central gas pipeline, a distribution line, fiber optics line, water wells, and temporary construction laydown areas. Shared offsite facilities include access to the site, a distribution line, gas pipeline, above and below-ground fiber optic lines, and a new 10 mile single-circuit 230 kilovolt (kV) generation-tie (gen-tie) line.

### **BACKGROUND**

The GSEP utilizes solar parabolic trough technology to generate electricity. With this technology, arrays of parabolic mirrors collect heat energy from the sun and refocus the radiation on a receiver tube located at the focal point of the parabola. A heat transfer fluid (HTF) is heated to high temperature (740 degrees Fahrenheit) as it circulates through the receiver tubes. The heated HTF is then piped through a series of heat exchangers, where it releases its stored heat to generate high-pressure steam. The steam is then fed to a traditional steam turbine generator, where electricity is produced. The preferred alternative utilizes dry-cooling technology to minimize impacts to water resources.

The 230 kV gen-tie line will be a ROW routed southeasterly from the powerblock and eventually connecting to the existing 230/500kV Colorado River Substation via the existing

Blythe Energy Project Transmission Line between the Julian Hinds and Buck substations. The California Independent System Operator has conducted an Interconnection Study and determined that the GSEP's power can be fully delivered without overloading the existing transmission system.

## **POSITION OF INTERESTED PARTIES**

Based on input received from agencies, organizations, Native Americans and Tribal Governments, and members of the general public, several areas of controversy related to the GSEP are:

1. Wildlife Resources –Habitat types impacted by the proposed GSEP include creosote bush scrub, ephemeral drainages and stabilized and partially stabilized sand dunes. The GSEP would result in the loss of marginal unoccupied desert tortoise habitat which will be minimized by the 1:1 compensation. The US Fish & Wildlife Service Biological Opinion will be attached as an appendix to the ROD and the terms and conditions will be added to the right-of-way requirements.
2. Cultural Resources – Consultation with federally-recognized Indian tribes and with the California State Historic Preservation Office (SHPO) has been completed. Pursuant to Section 106 of the National Historic Preservation Act, the BLM has prepared a Programmatic Agreement (PA) in consultation with the Advisory Council for Historic Preservation, SHPO, CEC, and interested tribes (including tribal governments as part of government-to-government consultation) to establish a process for consultation, review, and compliance with the National Historic Preservation Act. Resources documented include prehistoric-to-historic period Native American archaeological sites and historic-period military training sites. The PA was signed on October 7, 2010 and is attached to the ROD.
3. Water Resources – Construction activities for the GSEP Dry Cooling Alternative (Agency Preferred Alternative), expected to last 39 months, would result in the pumping/consumption of 616 to 1,368 acre feet of groundwater per year. Operations associated with the Dry Cooling Alternative would consume approximately 218 acre feet of groundwater per year. This would not exceed the groundwater basin's positive yearly balance of 2,608 acre feet per year. During construction, operation, and decommissioning of the GSEP, relatively minor impacts would result for surface water quality, groundwater quality, groundwater level, and drainage and flooding. Implementation of BLM and CEC required mitigation measures including modeling, monitoring, and off site mitigation would reduce impacts on water resources.
4. Visual Resources – The Dry Cooling Alternative would be dissimilar to the surrounding natural landscape. The large fields of parabolic mirrors would produce glint and glare at various times of the day. The facility would also include 120-foot cooling towers. These impacts would affect travelers along the Interstate 10 and nearby local roads, users of Wiley's Well Rest Area, and dispersed recreational users in the area. Required mitigation measures, which require surface treatments for solar panels, revegetation of disturbed

areas to the greatest practical extent, and dust control, are required to minimize visual intrusion and color contrasts.

## **DECISION OPTIONS**

The EIS considered six alternatives including the Agency preferred alternative, including:

1. The project as proposed by the applicant (250 MW, 4,640 acres water cooled facility - the applicant revised the project to a dry cooled facility and a smaller footprint as the environmental review process proceeded).
2. A Dry-Cooling Alternative (250 MW, 1,746 acres) (Agency preferred alternative).
3. A Reduced Acreage Alternative (125 MW, 950 acres).
4. No Action Alternative A (no ROW grant and no California Desert Conservation Area (CDCA) Plan Amendment).
5. No Action Alternative B (no ROW grant, but amend the CDCA Plan to make the project site unavailable for any type of solar development).
6. No Action Alternative C (no ROW grant, but amend the CDCA Plan to make the project site available for any type of solar development).

The BLM has decided to approve the preferred alternative including additional mitigation measures and monitoring necessary to avoid, minimize, reduce, or compensate for adverse impacts of the project. This decision would authorize the building of two adjacent and independent power block units, capable of generating a total capacity of 250 megawatts (MW) of electricity, as well as all associated ancillary facilities.

## **RECOMMENDATION**

I recommend you approve the decisions regarding the GSEP. Your approval of this decision constitutes the final decision of the Department of the Interior and, in accordance with the regulations at 43 CFR 4.410(a)(3), is not subject to appeal under Departmental regulations at 43 CFR Part 4. Any challenge to this decision, including the BLM Authorized Officer's issuance of the right-of-way as approved by this decision, must be brought in federal district court.

### **DECISION BY THE SECRETARY:**

APPROVE: \_\_\_\_\_

DISAPPROVE: \_\_\_\_\_

COMMENTS:

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Ken Salazar



# EXECUTIVE SUMMARY

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## ES.1 Background and Organization

In August 2007, the United States Bureau of Land Management (BLM) California Desert District and the California Energy Commission (CEC) entered into a Memorandum of Understanding (MOU) to jointly develop the environmental analysis documentation for solar thermal projects which are under the jurisdiction of both agencies. Consistent with that MOU, the BLM and the CEC prepared a joint environmental compliance document to address the requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) for the Genesis Solar Energy Project (GSEP). Specifically, a Staff Assessment/Draft Environmental Impact Statement (SA/DEIS) was prepared and was circulated for agency and public review and comment between April 9, 2010, and July 8, 2010. The SA/DEIS is incorporated by reference in this Plan Amendment/Final Environmental Impact Statement (PA/FEIS).

The BLM and the CEC prepared separate final documents for compliance with NEPA and CEQA, respectively. Specifically, the BLM prepared this PA/FEIS for the GSEP. The SA/DEIS was the primary reference used in preparing this FEIS. The SA/DEIS is incorporated by reference in this FEIS. The comments received on the DEIS are addressed in this PA/FEIS. After the publication of this PA/FEIS, the BLM will prepare a Record of Decision (ROD) regarding the Proposed Action (Agency Preferred Alternative). The publication of the ROD in the Federal Register is the final step required of the BLM to meet the requirements of NEPA for the GSEP.

## ES.2 Lead Agencies' Roles and Approvals

The BLM's authority for the Proposed Action includes the Federal Land Policy and Management Act (FLPMA) of 1976, Section 211 of the Energy Policy Act, and BLM's Solar Energy Development Policy. The FLPMA authorizes the BLM to issue right-of-way (ROW) grants for renewable energy projects. BLM's authority also extends to the BLM lands in the Palm Springs/South Coast Field Office, which are governed by the California Desert Conservation Area Plan (1980, as amended) (CDCA Plan). Because the CDCA Plan would need to be amended to allow the GSEP on the proposed site, BLM would also oversee that CDCA Plan amendment process for the project.

The CEC has the exclusive authority to certify the construction, modification, and operation of thermal electric power plants in California which generate 50 or more MW. The CEC certification is in lieu of any permit required by State, regional, or local agencies. The CEC must review power plant Applications for Certification (AFCs) to assess potential environmental impacts and

compliance with applicable laws, ordinances, regulations, and standards (LORS). The CEC analyses regarding the BSPP in the SA/DEIS were prepared in accordance with the requirements of CEQA.

## **ES.3 Purpose and Need**

### **BLM Purpose and Need**

NEPA guidance published by the Council on Environmental Quality (CEQ) states that environmental impact statements' Purpose and Need section "shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the Proposed Action" (40 CFR 1502.13). The following discussion sets forth the purpose of and need for the action as required under NEPA.

The BLM's purpose and need for the GSEP is to respond to Genesis Solar, LLC's application under Title V of FLPMA (43 U.S.C. 1761) for a ROW grant to construct, operate, maintain and decommission a solar thermal facility on public lands in compliance with FLPMA, BLM ROW regulations, and other applicable Federal laws. The BLM will decide whether to approve, approve with modification, or deny issuance of a ROW grant to Genesis Solar, LLC for the proposed GSEP. The BLM's action will also include consideration of amending the California Desert Conservation Area Plan (CDCA) 1980, as amended concurrently. The CDCA, while recognizing the potential compatibility of solar generation facilities on public lands, requires that all sites associated with power generation or transmission not identified in that plan be considered through the land use plan amendment process. If the BLM decides to approve the issuance of a ROW grant, the BLM will also amend the CDCA as required.

In conjunction with FLPMA, BLM authorities include:

1. Executive order 13212, dated May 18, 2001, which mandates that agencies act expediently and in a manner consistent with applicable laws to increase the "production and transmission of energy in a safe and environmentally sound manner."
2. The Energy Policy Act 2005 (EPAAct ), which sets forth the "sense of Congress" that the Secretary of the Interior should seek to have approved non-hydropower renewable energy projects on the public lands with a generation capacity of at least 10,000 MW by 2015.
3. Secretarial Order 3285A1, dated March 11, 2009 and amended on Feb 22, 2010, which "establishes the development of renewable energy as a priority for the Department of the Interior."

### **Department of Energy Purpose and Need**

The Applicant submitted an application to DOE on June 4, 2010 for a Federal loan guarantee for the GSEP in response to a DOE competitive solicitation, "Commercial Technology Renewable Energy Generation Projects Under the Financial Institution Partnership Program." This solicitation was issued under section 1705, Title XVII, of the Energy Policy Act of 2005 (EPAAct). Section 406 of the American Recovery and Reinvestment Act of 2009 (the "Recovery Act")

amended EAct, adding section 1705, designed to address the current economic conditions of the Nation, in part, through eligible renewable projects to generate electricity, to commence construction no later than September 30, 2011. DOE is carrying out a detailed financial, technical, and legal evaluation of the project in response to that solicitation, and is in the course of negotiating the terms and conditions of a possible federal loan guarantee pursuant to its procedures set out at 10 CFR Part 609. DOE is a cooperating agency on this EIS pursuant to a Memorandum of Agreement between DOE and BLM signed in January 2010, and would use this EIS to meet its NEPA requirements in making a determination of funding.

Title XVII of the Energy Policy Act of 2005 (EAct), P.L. 109-58 as amended by section 406 of the American Recovery and Reinvestment Act of 2009, P.L. 111-5 (the “Recovery Act”), established a Federal loan guarantee program for eligible energy projects that employ innovative technologies. Title XVII authorizes the Secretary of Energy to make loan guarantees for various types of projects, including those that “avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases; and employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued.” Section 406 of the Recovery Act added section 1705, which is designed to address the current economic conditions of the nation, in part, through eligible renewable and transmission projects to commence construction no later than September 30, 2011. The primary purposes of the Recovery Act are job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and state and local fiscal stabilization. The purpose and need for DOE action would be to comply with its mandate by selecting eligible projects that meet the goals of EAct and the Recovery Act.

## Energy Commission Project Objectives

The CEQA guidelines require a clearly written statement of objectives to guide the lead agency in developing a reasonable range of alternatives and aid decision-makers in preparing findings or a statement of overriding considerations. CEQA specifies that the statement of objectives should include the underlying purpose of the project (Section 15126.6(a)). After considering the objectives set out by the applicant, the Energy Commission identified the following basic project objectives, which are used to evaluate the viability of alternatives in accordance with CEQA:

1. To construct a utility-scale solar energy project of up to 250 MW and interconnect directly to the CAISO Grid while minimizing additions to electrical infrastructure; and
2. To locate the facility in areas of high solar insolation.
3. In addition, when considering retention or elimination of alternative renewable technologies, in addition to evaluating the likelihood of reducing or eliminating the potential impacts of Genesis Solar Energy Project at its proposed site, staff evaluated whether alternative technologies could meet the following key project objectives:
4. To provide clean, renewable electricity and to assist Southern California Edison (SCE) in meeting its obligations under California’s Renewable Portfolio Standard Program (RPS);
5. To assist SCE in reducing its greenhouse gas emissions as required by the California Global Warming Solutions Act; and

6. To contribute to the achievement of the 33% renewables RPS target set by California's governor and legislature
7. To complete the review process in a timeframe that would allow the applicant to start construction or meet the economic performance guidelines by December 31, 2010 to potentially qualify for the 2009 ARRA cash grant in lieu of tax credits for certain renewable energy projects.

## ES.4 Proposed Action and Plan Amendment

Genesis Solar, LLC, (Applicant) proposes to construct, operate, maintain and decommission the GSEP or Proposed Action which includes a 250 MW solar generating facility, 230-kV transmission line (gen-tie) and ancillary facilities (access road and natural gas pipeline) on BLM-administered land, approximately 25 miles west of the city of Blythe and five miles north of the Interstate-10 freeway (see Figure 1-1). The Applicant is seeking a right-of-way (ROW) grant for approximately 4,640 acres. Construction and operation of the GSEP would disturb a total of about 1,808 acres. Remaining acreage that would not be disturbed may not be part of the ROW grant.

The GSEP would include the construction and operation of two adjacent, independent, nearly identical power block units (Units) of 125 MW nominal capacity each for a total nominal capacity of 250 MW commercial solar parabolic trough generating station and ancillary facilities (see Figure 2-1 and Figure 2-2). The GSEP would be constructed in two phases. Each phase is designed to build one Unit to provide a approximately 125 MW of electricity and would occupy an estimated 900 acres. The GSEP would be connected to Southern California Edison's planned Colorado River Substation, which would be located approximately 11 miles southeast of the GSEP area, via the proposed gen-tie line, a 230 kV transmission line.

The Applicant did not request a CDCA Plan amendment directly. Nonetheless, the BLM has determined that a CDCA Plan amendment would be required if a ROW were granted for a solar power generating facility on the proposed site. Regardless of whether the proposed project is approved, the BLM could elect to amend the CDCA Plan. Consequently, the following range of outcomes of the BLM's potential CDCA Plan amendment process is as follows:

**PA1** – The CDCA (1980, as amended) would be amended to approve this site for development of this facility And all other types of solar energy development. (This is the proposed land use plan amendment.)

**PA2** – The CDCA Plan (1980, as amended) would not be amended. (This is No Action Alternative A, discussed in Table ES-1.)

**PA3** – The CDCA Plan (1980, as amended) would be amended to identify the GSEP application area as unsuitable for any type of solar energy development. (This is a no project alternative called "No Action Alternative B" and is discussed in Table ES-1.)

**PA4** – The CDCA Plan (1980, as amended) would be amended to identify the GSEP application area as suitable for any type of solar energy development. (This is a no project alternative called "No Action Alternative C" and is discussed in Table ES-1.)

## **ES.5 Ancillary/Connected/Cumulative Actions**

### **Telecommunications and Telemetry**

Telecommunications services would be provided by a local provider via either fiber optic cable or microwave. Fiber optic cable would be buried in a shallow trench or strung on the power distribution line or gen-tie line, or a combination of both methods within the disturbed areas of the other linear facilities. (See Figure 2-8)

### **Natural Gas Pipeline**

A new eight-inch diameter, 6.5-mile long natural gas pipeline would be constructed to connect the project to an existing Southern California Gas (SCG) pipeline situated south of I-10. The line would be buried with a minimum three feet of cover depending on location.

Construction of the gas pipeline would be built to SCG standards and would take approximately three to six months. Most major pieces of pipeline construction equipment would remain along the pipeline ROW during construction with storage and staging of equipment and supplies located at the site or other acceptable site selected by SCG at the time construction is underway. Excavated earth material would be stored within the construction ROW.

### **Distribution Line**

Construction power would be provided by the local distribution system and routed to the site along wood poles within the 230 kV ROW (see Figure 2-8).

### **Colorado River Substation Expansion**

This Proposed Action involves expanding the already approved, but not yet constructed, 500 kV SCE switchyard by approximately 65 acres into a full 500/220 kV substation on approximately 90 acres of land.

### **Cumulative Scenario**

There are a large number of renewable energy and other projects proposed throughout the California desert that were identified as potentially contributing to cumulative environmental impacts. Those cumulative projects are discussed in detail in Section 4.1.4, Cumulative Scenario Approach.

## **ES.6 Alternatives to the Proposed Action**

Table ES-1 summarizes the GSEP, the Agency Preferred Alternative, as well as the other Alternatives evaluated in this PA/FEIS. The GSEP is the originally Proposed Action. All of these Alternatives are described in detail in Chapter 2, Proposed Action and Alternatives.

**TABLE ES-1  
SUMMARY OF ALTERNATIVES EVALUATED IN THE PA/FEIS**

<b>Alternative</b>	<b>Comments</b>
Proposed Action  250 MW; 1,807 acres disturbed BLM amends CDCA Plan for GSEP	This is the GSEP and was the original Proposed Action.
Dry Cooling Alternative  250 MW; 1,807 acres disturbed BLM amends CDCA Plan for GSEP	This is an alternative that would use dry cooling technology to generate the same energy output using the same footprint, but would reduce water consumption by 87%; it also is the Agency Preferred Alternative.
Reduced Acreage Alternative  125 MW (50 percent of MW of the GSEP); 1,012 acres disturbed (795 acres less than the GSEP) BLM amends CDCA Plan for Reduced Acreage Alternative	This is a reduced project that would develop only one of the two Units proposed under the GSEP. The same solar trough technology would be used as for the GSEP.
No Action Alternative A  BLM does not approve the ROW Grant for the GSEP BLM does not amend the CDCA Plan	This No Action Alternative was evaluated in the SA/DEIS under both CEQA and NEPA.
No Project Alternative B  BLM does not authorize the ROW grant for the GSEP; BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development.	This No Project Alternative was evaluated in the SA/DEIS under NEPA only.  This is not a typical "No Project" Alternative because the BLM would take action to amend the CDCA Plan under this Alternative. However, it was evaluated because it provided an opportunity for the BLM to consider the effects of not approving the ROW grant application and also amending the CDCA Plan to make the specific GSEP site unavailable for future solar development.
No Project Alternative C  BLM does not authorize the ROW grant for the GSEP; BLM amends the CDCA Plan to make the project site available for any type of solar energy development.	This No Project Alternative was evaluated in the SA/DEIS under NEPA only.  This is not a typical "No Project" Alternative because the BLM would take action to amend the CDCA Plan under this Alternative. However, it was evaluated because it provided an opportunity for the BLM to consider the effects of not approving the ROW grant application and also amending the CDCA Plan to make the specific GSEP site available for future solar development.

## ES.7 Affected Environment

The GSEP would be located on public land managed by the BLM approximately six miles north of the I-10 freeway and 25 miles west of the City of Blythe, California. The Proposed Action includes a 230-kilovolt (kV) transmission line that would interconnect with the regional grid at Southern California Edison's (SCE) planned Colorado River Substation about 11 miles southeast the plant site. The Applicant has applied for a right-of-way (ROW) grant from BLM for approximately 4,640 acres of flat desert terrain. Within these 4,640 acres, construction and operation would disturb approximately 1,808 acres. Remaining acreage that would not be disturbed would not be part of the ROW grant.

The Genesis Solar Energy Project (GSEP) would be located within the northeastern portion of Chuckwalla Valley, an area east of Palm Springs. The range of the Chuckwalla Valley is from 400 feet above mean sea level at Ford Dry Lake to approximately 1,800 feet above mean sea level along some of the bajadas that occur west of Desert Center, California with the surrounding mountains rising to over 3,000 above mean sea level (GSEP 2009a). Depending on the published reference, the GSEP site is located in either the southeastern portion of the Mojave Desert geomorphic province (CGS 2002a), or the northeastern quarter of the Colorado Desert geomorphic province (Norris and Webb 1990), in the Mojave Desert of Southern California near the Arizona border.

The GSEP area supports four major upland natural communities. The majority of the GSEP Disturbance Area supports Sonoran creosote bush scrub; the eastern portion of the GSEP Disturbance Area also supports stabilized and partially stabilized desert dunes. A small amount of playa and sand drifts over playa occur within the GSEP Disturbance Area along the margins of Ford Dry Lake. The larger surveyed area, the GSEP area, supports chenopod scrub, and desert wash woodland in addition to the two vegetation communities mentioned above (GSEP 2009a). All of these communities except the Sonoran creosote bush scrub are considered sensitive according to the NECO plan. Additionally, the southern linear facility route was determined by the applicant to support wash-associated, microphyll riparian woodland communities (GSEP 2009f, BIO-DR-70). Dry desert wash woodland and microphyllous riparian vegetation are described in detail in the section on Ephemeral Washes/ Waters of the State. A variety of wildlife occupies the habitats on and in the vicinity of the project site.

The GSEP Site lies on a broad, relatively flat, southward sloping surface dominantly underlain by alluvial deposits derived from the Palen Mountains to the north and the McCoy Mountains to the east. The alluvial deposits have created two distinct landform types and several discernable landform ages. The deposits immediately adjacent to the mountains have formed alluvial fans from multiple identifiable sources, and multiple fan surfaces have coalesced into a single bajada surface that wraps around each of these mountain fronts. Between the bajada surfaces from each mountain chain is a broad valley-axial drainage that extends southward between the mountains and drains to the Ford Dry Lake playa, located about 1 mile south of the Site (WPAR 2009a).

## **ES.8 Environmental Consequences**

Table ES-2 summarizes the environmental impacts that would occur as a result of the GSEP and Alternatives by environmental parameter. Appendix G, Conditions of Certification, identify the mitigation measures, project features, and other measures included to avoid or substantially reduce adverse impacts. The unavoidable adverse impacts that would remain after mitigation are also discussed at the end of each section in Chapter 4.

**TABLE ES-2  
SUMMARY OF IMPACTS BY ALTERNATIVE**

Resource	ALTERNATIVES					
	Proposed Action	Dry Cooling Alternative	Reduced Acreage Alternative	No Action Alternative	No Project Alternative B	No Project Alternative C
Air	<ul style="list-style-type: none"> <li>• <i>Construction</i>: NO<sub>x</sub>=182 tons/yr; VOC=46 tons/yr; CO=363 tons/yr; PM10=41 tons/yr; PM2.5=16 tons/yr; and Sox=0.47 tons/yr</li> <li>• <i>Operations</i>: NO<sub>x</sub>= 3 tons/yr; VOC=16 tons/yr; CO=7 tons/yr; PM10=21 tons/yr; PM2.5=7; tons/yr; and Sox=0.02 tons/yr</li> <li>• <i>Decommissioning</i>: Comparable in type and magnitude, but likely to be lower than, the construction emissions</li> </ul>	Slightly higher construction emissions; 3.8-tons per year reduction in operational particulate emissions; slightly lower operational emissions.	Similar to the Proposed Action	Likely delayed impact similar to the Proposed Action. Required acreage could be less, approximately the same, or more than the Proposed Action.	No impact, or impact specific to a future use other than solar energy generation.	Short term: no impact Long term: Similar to Proposed Action
Global Climate Change	<ul style="list-style-type: none"> <li>• <i>Construction</i>: GHG: 52,974 CO<sub>2</sub>-Equivalent and loss in carbon uptake of about 2,584 MT of CO<sub>2</sub> per year due to vegetation removal</li> <li>• <i>Operations</i>: 4,133 CO<sub>2</sub>-Equivalent</li> <li>• <i>Decommissioning</i>: Comparable in type and magnitude, but likely to be lower than, the construction emissions</li> </ul>	Slightly reduced from the Proposed Action	Approximately 50% less than the Proposed Action	Likely delayed impact similar to the Proposed Action. Required acreage could be less, approximately the same, or more than the Proposed Action.	No impact, or impact specific to a future use other than solar energy generation.	Similar to the Proposed Action
Cultural	<ul style="list-style-type: none"> <li>• 27 sites considered to be significant (12 prehistoric and 15 historic)</li> <li>• Possibly additional resources yet to be discovered during construction</li> <li>• The integrity of setting and integrity of feeling of two potential archaeological/historic landscapes</li> </ul>	Same as Proposed Action	Impacts are reduced to 20 known sites.	Likely delayed impact similar to the Proposed Action. Required acreage could be less, approximately the same, or more than the Proposed Action.	No impact, or impact specific to a future use other than solar energy generation.	Similar to the Proposed Action. Required acreage could be less, approximately the same, or more than the Proposed Action.
Environmental Justice	No Impact	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action
Lands and Realty	<ul style="list-style-type: none"> <li>• Minimal and mitigable impacts to designated corridors and Interstate 10 from overhead gen-tie power line and underground pipeline crossing.</li> <li>• No impacts to existing uses.</li> </ul>	Similar to the Proposed Action	Similar to the Proposed Action	Likely delayed impact similar to the Proposed Action. Required acreage could be less, approximately the same, or more than the Proposed Action.	No impact, or impact specific to a future use other than solar energy generation.	Similar to the Proposed Action. Required acreage could be less, approximately the same, or more than the Proposed Action.
Livestock Grazing	No Impact	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action



**TABLE ES-2 (Continued)  
SUMMARY OF IMPACTS BY ALTERNATIVE**

Resource	ALTERNATIVES					
	Proposed Action	Dry Cooling Alternative	Reduced Acreage Alternative	No Action Alternative	No Project Alternative B	No Project Alternative C
Minerals	No Impact	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action
Multiple Use Classes	<ul style="list-style-type: none"> <li><i>Construction:</i> 1800 acres of MUC Class M (Moderate) affected.</li> <li><i>Operations:</i> restriction of multiple use opportunities on the site to a single dominant use.</li> </ul>	Same as Proposed Action	Approximately 50% less than the Proposed Action	No Impact; similar impacts if other utility-scale solar power facilities built in future.	No Impact.	Same as Proposed Action.
Noise	<ul style="list-style-type: none"> <li><i>Construction:</i> short-term elevated noise levels at the prisons nine miles from the GSEP site would occur associated with high pressure steam blow.</li> <li><i>Operations:</i> No impact; no sensitive noise receptors within 5 miles; at 5 miles, noise levels would be approximately 30 dBA.</li> </ul>	Similar to the Proposed Action, though slightly reduced.	Similar to the Proposed Action as there are no noise sensitive receptors in the vicinity.	Similar to the Proposed Action	Similar to the Proposed Action	Similar to the Proposed Action
Paleontological	<ul style="list-style-type: none"> <li><i>Construction:</i> Damage and/or destruction of paleontological resources; possible net gain to the science of paleontology depending on fossils found.</li> <li><i>Operations:</i> No Impact.</li> <li><i>Decommissioning:</i> No Impact.</li> </ul>	Same as Proposed Action	Approximately 50% less than the Proposed Action	No negative impact or potential benefits to science of paleontology. Long term impacts likely similar to Proposed Action.	No negative impact or potential benefits to science of paleontology. Impacts similar to the Proposed Action likely to occur in other locations.	Similar but reduced/increased proportionate to size of future development.
Public Health & Safety	<ul style="list-style-type: none"> <li><i>Construction:</i> Risks to public health and contamination associated with construction equipment; safety risk of encountering unexploded munitions; risks of encountering abandoned mined lands.</li> <li><i>Operations:</i> large quantities of natural gas and Therminol VP1 would be used; no short- or long-term adverse human health effects are expected; risks of encountering abandoned mined lands; transmission line safety and nuisance hazards; traffic and transportation safety, including aviation safety; impacts to public and private airfields; and worker safety and fire protection impacts; and impacts associated with geologic hazards.</li> </ul>	Similar to the Proposed Action	Similar to the Proposed Action	Similar to the Proposed Action	Similar to the Proposed Action	Similar to the Proposed Action

**TABLE ES-2 (Continued)  
SUMMARY OF IMPACTS BY ALTERNATIVE**

Resource	ALTERNATIVES					
	Proposed Action	Dry Cooling Alternative	Reduced Acreage Alternative	No Action Alternative	No Project Alternative B	No Project Alternative C
Recreation	<ul style="list-style-type: none"> <li>• <i>Construction</i>: impacts from noise, fugitive dust, and truck and other vehicle ingress and egress to the construction site.</li> <li>• <i>Operations</i>: site not available for recreational use; minimal impacts to other lands in the vicinity of the proposed site due to increased usage; site viewable by users in nearby elevated areas.</li> <li>• <i>Decommissioning</i>: dust and noise impacts similar to construction; after decommissioning area would be reclaimed for recreational use.</li> </ul>	Operation, maintenance, and closure similar to Proposed Action.	Approximately 50% less than the Proposed Action	Similar to the Proposed Action.	Potential impacts could range from no impact to greater impact, depending on future site use.	Similar but reduced/increased proportionate to size of future development.
Social & Economics	<ul style="list-style-type: none"> <li>• <i>Construction</i>: Employment of 646 workers (average) and 1,085 workers (peak). Most, if not all, expected to live within two hours of site.</li> <li>• Any temporary lodging demand met by existing housing or lodging. No new housing or motel development induced.</li> <li>• Total direct construction spending benefits of \$165 million on labor and \$14.5 million on materials.</li> <li>• Additional total indirect and induced spending benefits of \$136.8 million and 358 jobs.</li> <li>• <i>Operations</i>: Annual employment of 65 workers of which at least 50% expected to live within two hours of site.</li> <li>• Any in-migration housing demand met by existing housing. No new housing growth induced.</li> <li>• Annual direct spending benefits of \$6 million on labor and \$0.5 million on materials.</li> <li>• Additional total indirect and induced spending benefits of \$3.9 million and 32 jobs.</li> <li>• <i>Decommission</i>: Temporary spending and employment benefit from deconstruction and site restoration work. Subsequent long term adverse impact from lost project jobs and spending.</li> </ul>	Same as Proposed Action	Similar but reduced proportionate to size of alternative	Similar to the Proposed Action	No Impact	Similar to the Proposed Action

**TABLE ES-2 (Continued)  
SUMMARY OF IMPACTS BY ALTERNATIVE**

Resource	ALTERNATIVES					
	Proposed Action	Dry Cooling Alternative	Reduced Acreage Alternative	No Action Alternative	No Project Alternative B	No Project Alternative C
Soils	<ul style="list-style-type: none"> <li><i>Construction:</i> total earth movement of approximately 1 million cubic yards. Wind erosion generated soil loss of 29.7 tons per acre per year, reduced from 72.88 tons per acre per year without the GSEP. Water erosion generated soil loss of 21.95 tons per acre per year, increased from 1.53 tons per acre per year without the GSEP.</li> <li><i>Operations:</i> Wind erosion generated soil loss of 1.25 tons per acre per year, reduced from 72.88 tons per acre per year without the GSEP. Water erosion generated soil loss of 6.93 tons per acre per year, increased from 1.53 tons per acre per year without the GSEP.</li> </ul>	Similar to Proposed Action	<p>Peak construction: same as Proposed Action.</p> <p>Long term construction: less than Proposed Action.</p> <p>Operation: less than Proposed Action. Aeolian erosion and transport would be reduced to near zero. Similarly, the impacts on the Chuckwalla and Palen-McCoy sand corridors or the eastern wash complex would be removed.</p>	No impact; potential for similar impacts in other locations.	No impact; potential for similar impacts in other locations.	Similar to Proposed Action
Special Designations	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
Transportation and Public Access – Off Highway Vehicle Resources	<ul style="list-style-type: none"> <li><i>Construction:</i> temporary disturbance to motorized vehicles on local routes; traffic hazards from construction worker commuting and parking; increased traffic from construction activities; damage to roadways. Temporary closure of up to five OHV routes during construction of linears.</li> <li><i>Operations:</i> increased opportunities for vandalism, illegal cross-county use and other disruptive behavior from off-highway vehicles (OHV).</li> <li>No impact to overall access for wilderness recreation; some impact to sightseeing and day use touring by OHV users.</li> </ul>	Similar to Proposed Action.	Similar to Proposed Action	No impact to OHV routes and values; similar impacts to transportation.	No impact to OHV routes and values; similar impacts to transportation.	Similar impacts as Proposed Action.

**TABLE ES-2 (Continued)  
SUMMARY OF IMPACTS BY ALTERNATIVE**

Resource	ALTERNATIVES					
	Proposed Action	Dry Cooling Alternative	Reduced Acreage Alternative	No Action Alternative	No Project Alternative B	No Project Alternative C
Vegetation	1,773 acres vegetation communities lost; 90 acres ephemeral drainages lost; 196.5 acres sand dune habitat lost; 4 special status plant species impacted	Same as the Proposed Action in acreage, though indirect effects on vegetation may be reduced by reduction in groundwater pumping.	1,039 acres vegetation communities lost; 88 acres ephemeral drainages lost; 127.5 acres sand dune habitat lost; 4 special status plant species impacted. Indirect impacts on vegetation from groundwater use reduced by 50%. Eastern sand transport corridor not impacted.	Short term: no impact Long term: Similar to Proposed Action	No Impact	Short term: no impact Long term: Similar to Proposed Action
Visual	<ul style="list-style-type: none"> <li><i>Construction:</i> Mitigable short-term impacts from construction lighting and visible dust plumes; minor to moderate effects from large-scale visual disturbance in the landscape.</li> <li><i>Operations:</i> Short-term adverse and unavoidable impacts from glint and glare. Minor to moderate long-term impacts for ground-level viewers. Long-term adverse and unavoidable impacts in the cumulative scenario for dispersed recreational viewers in surrounding mountains.</li> <li><i>Decommissioning:</i> Mitigable short-term impacts prior to successful restoration.</li> </ul>	Similar to the Proposed Action; but dry cooling alternative would slightly increase the visual contrast of the GSEP from KOP-1.	Similar to the Proposed Action; the visual contrast remains the same for KOP-3, but would be slightly reduced from KOPs 1 and 2, as well as elevated viewpoints.	No Impact	No Impact	Future solar energy development could be expected to affect visual resources to the same degree and extent as referenced in the Proposed Action.
Water	<ul style="list-style-type: none"> <li><i>Construction and Operation:</i> Groundwater extraction of up to 1,368 acre feet per year for 3 years of construction, and 1,644 acre feet per year for operation from the Chuckwalla Valley Groundwater Basin. A fraction of this water could be drawn indirectly from induced flows from the Colorado River.</li> <li>Mitigable alteration of stormwater flows and drainage, including re-routing of existing flowpaths.</li> <li>Mitigable surface water quality effects including use of detention basis, spreading fields, drainage channels, and spill cleanup facilities during operation.</li> </ul>	Similar to the Proposed Action, although the operational use of groundwater is reduced to 218 acre feet per year.	Approximately 50% less than Proposed Action for groundwater consumption, similar to the Proposed Action for all others.	Short term: no impact Long term: Similar to Proposed Action	No Impact	Short term: no impact Long term: Similar to Proposed Action

**TABLE ES-2 (Continued)  
SUMMARY OF IMPACTS BY ALTERNATIVE**

Resource	ALTERNATIVES					
	Proposed Action	Dry Cooling Alternative	Reduced Acreage Alternative	No Action Alternative	No Project Alternative B	No Project Alternative C
Water (cont.)	<ul style="list-style-type: none"> <li><i>Decommissioning:</i> Mitigable water quality effects due to use of heavy machinery and re-grading of site to match adjacent topography.</li> </ul>					
Wild Horse & Burros	No Impact	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action
Wildland Fire Ecology	Increase in threat of wildland fires in area during construction (due to increased vehicle use) and during operation (due to increased likelihood of invasive annual plant spread).	Similar to Proposed Action	Similar to Proposed Action	Short term: no impact Long term: Similar to Proposed Action	No Impact	Short term: no impact Long term: Similar to Proposed Action
Wildlife	<ul style="list-style-type: none"> <li><i>Construction:</i> 1,774 acres wildlife habitat lost; 9 special status wildlife species impacted</li> <li><i>Operations:</i> disruption of migratory patterns; death or injury to individuals from striking powerlines, mirrors, arrays, poles or being struck by vehicles; increased predation.</li> </ul>	Same as the Proposed Action in acreage, though indirect effects on vegetation and related resources for wildlife may be reduced by reduction in groundwater pumping.	<i>Construction:</i> 1,039 acres wildlife habitat lost; 9 special status wildlife species impacted on 50% fewer acres than Proposed Action  <i>Operations:</i> Similar to Proposed Action	Short term: no impact Long term: Similar to Proposed Action	No Impact	Short term: no impact Long term: Similar to Proposed Action

## **ES.9 Areas of Controversy and Issues for Resolution**

Based on input received from agencies, organizations, Native Americans and Tribal Governments, and members of the general public during the scoping for the SA/DEIS and in comments on the SA/DEIS, several areas of controversy related to the GSEP are:

- Opposition to the placement of a large solar project on essentially undisturbed desert land
- Support for locating renewable energy projects in urban or previously-developed areas
- Concern regarding the impacts of this large project on biological and cultural resources
- Concern regarding GHG emissions and climate change
- Concern regarding groundwater use
- Concern regarding the range of alternatives considered

Extensive comments were received during the scoping process for the GSEP. The scoping process and public input received during that process are provided in detail in Appendix C, Results of Scoping.

## **ES.10 Organizations and Persons Consulted**

In addition to the scoping and SA/DEIS public review processes, the BLM has been consulting and coordinating with public agencies who may be requested to take action on the GSEP. Consultation and coordination is summarized below.

### **Native American Consultation and Coordination**

A key part of a cultural resources analysis under NEPA, CEQA and Section 106 of the National Historic Preservation Act of 1966 (NHPA) is to determine which of the cultural resources that a proposed or alternative action may affect are important or historically significant. In accordance with 36 CFR Part 800.14(b), Programmatic Agreements (PAs) are used for the resolution of adverse effects for complex project situations and when effects on historic properties or resources eligible for or listed in the National Register of Historic Places (National Register) cannot be fully determined prior to approval of an undertaking. The BLM is preparing a PA in consultation with the Advisory Council on Historic Preservation (ACHP), the State Historic Preservation Officer (SHPO), the CEC, interested tribes (including tribal governments as part of government-to-government consultation), and other interested parties. The PA will govern the continued identification and evaluation of historic properties (eligible for the National Register) and historical resources (eligible for the California Register of Historic Places), as well as the resolution of any effects that may result from the GSEP. The consultation with the ACHP, SHPO and Native American Tribal Governments for the GSEP is ongoing.

### **United States Fish and Wildlife Service**

The BLM permit, consultation, and conferencing with the United States Fish and Wildlife Service (USFWS) required for the GSEP is to comply with the Federal Endangered Species Act (ESA)

for potential take of the Desert tortoise (*Gopherus agassizii*). Because Federal agency action has been identified for the GSEP project, ESA Section 7 consultation/conferencing between the BLM and USFWS is required prior to any take authorization for the GSEP from the USFWS. The BLM has submitted a Biological Assessment (BA) for take of this species to the USFWS for the GSEP. The process of consultation with USFWS for the GSEP is ongoing.

## California Department of Fish and Game

Consultation with the California Department of Fish and Game (CDFG) is anticipated for possible impacts to waters of the State. It is possible CDFG will determine that a Lake and Streambed Alteration Agreement may be required for the GSEP for the impacts to jurisdictional State waters. The process of consultation with CDFG for the GSEP is ongoing.

## ES.11 Public Participation

Scoping activities were conducted by the BLM in compliance with the requirements of NEPA for the GSEP. Many of these scoping activities were conducted jointly with the CEC. The BLM's scoping activities are described in detail in the Results of Scoping, which is provided in Appendix C. The scoping report documents the Notice of Intent, the scoping meetings, workshops, and the comments received during scoping.

## ES.12 Comments and Responses

The BLM and CEC distributed the joint SA/DEIS for the GSEP for public and agency review and comment between April 9, 2010, and July 8, 2010. Fourteen comment letters were received. PA/FEIS Appendix H includes all of the written comment letters received by the BLM in response to the NOA. Section 5.5, Public Comment Process, provides responses to common and individual comments.

**DEPARTMENT OF THE INTERIOR**

**Bureau of Land Management**

**[CACA-048880, LLCAD060000, L51010000.FX0000, LVRWB09B2520]**

**Notice of Availability of the Record of Decision for the Genesis Solar Energy Project and Amendment to the California Desert Conservation Area Resource Management Plan, Riverside County, California**

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Notice of Availability.

**SUMMARY:** The Bureau of Land Management (BLM) announces the availability of the Record of Decision (ROD)/Approved Amendment to the California Desert Conservation Area (CDCA) Plan, the applicable Resource Management Plan (RMP) for the project site and the surrounding areas, located in the California Desert District. The Secretary of the Interior approved the ROD on November 4<sup>5</sup>, 2010, which constitutes the final decision of the Department.

**ADDRESSES:** Copies of the ROD/Approved Amendment to the CDCA Plan are available upon request from the Field Manager, Palm Springs-South Coast Field Office, Bureau of Land Management, 1201 Bird Center Drive, Palm Springs, California, 92262 or via the internet at the following Website: <http://www.blm.gov/ca/st/en/fo/palmsprings.html>.

**FOR FURTHER INFORMATION CONTACT:** Allison Shaffer, BLM Project Manager; telephone: (760) 833-7100; mailing address: 1201 Bird Center Drive, Palm Springs, California, 92262; or e-mail: [CAPSSolarNextEraFPL@blm.gov](mailto:CAPSSolarNextEraFPL@blm.gov).

**SUPPLEMENTARY INFORMATION:** Genesis Solar, LLC, a wholly owned subsidiary of NextEra Energy Resources, filed right-of-way (ROW) application CACA-048880 for the



proposed Genesis Solar Energy Project (GSEP). The GSEP is a concentrated solar electrical generating facility using parabolic trough technology and facilities. The GSEP site is proposed on approximately 1,950 acres of BLM-managed lands in Riverside County, California, approximately 27 miles east of the unincorporated community of Desert Center and 25 miles west of the Arizona-California border city of Blythe. The GSEP consists of 2 independent solar electric generating facilities with a net electrical output of 125 megawatts (MW) each, resulting in a total net electrical output of 250 MW. In addition to the site, the project includes a distribution line, an electrical transmission line, fiber optic lines, a natural gas pipeline, and an access road. A double circuit 230-kilovolt (kV) transmission line will be constructed to connect to the Southern California Edison Colorado River substation via the existing Blythe Energy Project Transmission Line between the Julian Hinds and Buck substations. The linear facilities will encumber approximately 90 acres offsite.

The project site is in the California Desert District within the planning boundary of the CDCA Plan, which is the applicable RMP for the project site and the surrounding areas. The CDCA Plan, while recognizing the potential compatibility of solar generation facilities on public lands, requires that all sites associated with power generation or transmission not already identified in that Plan be considered through the BLM's land use plan amendment process. As a result, prior to approval of a ROW grant for the GSEP, the BLM must amend the CDCA Plan to allow the solar generating project on that site. The approved Amendment to the CDCA Plan specifically revises the CDCA Plan to allow for the development of the GSEP and ancillary facilities on land managed by the BLM.

The BLM preferred alternative would result in the building of 2 adjacent and independent power block units, capable of generating approximately 250 MW of electricity, and the use of dry

cooling technology, as well as all associated ancillary facilities. This 250 MW alternative was evaluated in the Final Environmental Impact Statement (EIS). The Notice of Availability of the Final EIS for the GSEP and the proposed CDCA Plan amendment was published in the Federal Register on August 27, 2010 (75 FR 52736).

Publication of the Notice of Availability for the Final EIS initiated a 30-day protest period for the proposed amendment to the CDCA Plan and a 30-day comment period on the Final EIS. At the close of the 30-day period on September 27, 2010, 3 timely and complete written protests were received and resolved. Their resolution is summarized in the Director's Protest Summary Report attached to the ROD. The proposed amendment to the CDCA Plan was not modified as a result of the protest resolution. In addition, the BLM received 10 comment letters on the Final EIS.

The BLM's responses to these comments are provided in Appendix 1 of the ROD.

Simultaneously with the protest period, the Governor of California conducted a 30-day consistency review of the proposed CDCA Plan amendment to identify any inconsistencies with the state or local plan, policies, or programs. The California Governor's office did not identify inconsistencies between the proposed amendment to the CDCA Plan and state or local plan, policies, or programs.

Because this decision is approved by the Secretary of the Interior, it is not subject to administrative appeal (43 CFR 4.410(a)(3)).

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Robert V. Abbey  
Director  
Bureau of Land Management

AUTHORITY: 40 CFR 1506.6

**RECORD OF DECISION**  
**for the**  
**Genesis Solar Energy Project**  
**and**  
**Amendment to the California Desert Conservation Area Plan**  
**Riverside County, California**

Lead Agency:

*United States Department of the Interior  
Bureau of Land Management*

*Environmental Impact Statement FES 10-42  
BLM Publication Index Number: BLM/CA/ES-2010-016+1793  
NEPA Tracking Number: DOI-BLM-CA-060-0010-0015-EIS  
Case File Number: CACA 048880*

*Genesis Solar Energy Project  
Decision to Amend the CDCA Plan and to Grant Right-of-Way*

*United States Department of the Interior,  
Bureau of Land Management  
Palm Springs South Coast Field Office (PSSCFO)  
1201 Bird Center Drive  
Palm Springs, CA 92262*

Cooperating Federal Agencies:  
*United States Department of Energy*

**November 2010**



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## **List of Abbreviations**

ACC	air-cooled condenser
AO	authorized officer
APP	Avian Protection Plan
ARRA	American Recovery and Reinvestment Act
BA	biological assessment
BLM	Bureau of Land Management
BO	biological opinion
CAA	Clean Air Act
CDCA	California Desert Conservation Area
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
COC	condition of certification
DNA	Determination of NEPA Adequacy
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
DWMA	Desert Wildlife Management Area
ECCMP	Environmental and Construction Compliance Monitoring Program
EO	Executive Order
EPA	Environmental Protection Agency
EPAct	Energy Policy Act
ESA	Endangered Species Act
FEIS	final environmental impact statement
FLPMA	Federal Land Policy and Management Act of 1976
I-10	Interstate 10
IM	Instruction Memorandum
LLC	Limited Liability Company
LUP	land use plan
MDAPMD	Mojave Desert Air Pollution Management District
MOU	memorandum of understanding

MUC	Multiple Use Class
MW	megawatt
NECO	Northern & Eastern Colorado Desert Coordinated Management Plan
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	notice of availability
NOI	notice of intent
NPS	National Park Service
NSR	New Source Review
NTP	notice to proceed
OHV	off-highway vehicle
PA	programmatic agreement
PA/FEIS	plan amendment/final environmental impact statement
POD	plan of development
ROD	record of decision
ROW	right-of-way
RPS	renewable portfolio standard
RSA	revised staff assessment
SA/DEIS	staff assessment/draft environmental impact statement
SCE	Southern California Edison
SF	Standard Form
SHPO	California State Historic Preservation Office
U.S.	United States
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
WSAC	wet surface air cooler



# Executive Summary

This document constitutes the Record of Decision (ROD) of the United States Department of the Interior (DOI) and Bureau of Land Management (BLM) for the Genesis Solar Energy Project (GSEP) and Amendment to the *California Desert Conservation Area Plan* (1980, as amended) (CDCA Plan). This ROD approves the construction, operation, maintenance, and decommissioning of the proposed GSEP on approximately 1,950 acres of public land (1,746 acres of actual disturbance) in Riverside County, California, as analyzed in the Plan Amendment/Final Environmental Impact Statement (PA/FEIS), issued on August 27, 2010, through the Environmental Protection Agency's Notice of Availability published in the Federal Register.

This ROD has two decisions: (1) a CDCA Plan Amendment and (2) a right-of-way (ROW) lease/grant decision under Title V of the Federal Land Policy and Management Act (FLPMA). The ROW will be granted to Genesis Solar, LLC (Genesis), and will allow the construction, operation, maintenance, and decommissioning of the GSEP that was analyzed in the PA/FEIS as BLM's Agency Preferred Alternative, which also is referred to as the Selected Alternative in this ROD. Amendment of the CDCA Plan is required to allow a solar energy generation project on this site because the site was not already identified as a site for power generation in the CDCA Plan. The CDCA Plan Amendment for this project was reviewed by the Governor's Office of Planning and Research and was found to be consistent with state and local plans.

This ROD reflects careful consideration of the information generated from the Genesis Solar Energy Project environmental review process, and further reflects resolution of the issues by BLM and the DOI through such process.

This ROD applies only to the BLM-administered lands, and to the BLM's decisions on the GSEP. Other agencies, including the California Energy Commission (CEC) and U.S. Department of Energy (DOE), are responsible for issuing their own decisions and applicable authorizations for the Project.

## Decision Rationale

These decisions fulfill legal requirements for managing public lands. Granting the ROW contributes to the public interest in developing renewable power to meet State and federal renewable energy goals. The stipulations in the lease/grant ensure that authorization of the GSEP will protect environmental resources and comply with environmental standards. These decisions reflect careful balancing of many competing public interests in managing public lands. These decisions are based on comprehensive environmental analysis and full public involvement. The BLM engaged highly qualified technical experts to analyze the environmental effects of the GSEP. During the scoping process and following the publication of the Staff Assessment/Draft Environmental Impact Statement (SA/DEIS), members of the public submitted comments that enhanced the BLM's consideration of many environmental issues relevant to this project. The BLM, CEC, DOE, US Fish and Wildlife Service and other consulted

agencies used their expertise and existing technology to address the important issues of environmental resource protection. The BLM and DOI have determined that all practicable mitigation measures contained in the PA/FEIS and the Biological Opinion (BO) that avoid or minimize environmental harm have been adopted.

# **1. Decisions and Authority**

## **1.1 Background**

This ROD for the GSEP and CDCA Plan Amendment approves the construction, operation, maintenance, and decommissioning of the proposed GSEP on BLM-administered public lands in Riverside County, California, as analyzed in the GSEP PA/FEIS and as noticed in the August 27, 2010, Federal Register (75 Fed. Reg. 52966). This decision approves the GSEP Agency Preferred Alternative (the Dry Cooling Alternative) as analyzed in the PA/FEIS, with some post-PA/FEIS modifications and clarifications. The Agency Preferred Alternative is also referred to as the Selected Alternative in this ROD.

This approval will take the form of a FLPMA ROW lease/grant, issued in conformance with Title V of FLPMA and implementing regulations found at 43 Code of Federal Regulations (CFR) Part 2800. In order to approve the site location for the GSEP, the BLM also approves a land use plan amendment to the CDCA Plan. The decisions contained herein apply only to the BLM-administered public lands within the Selected Alternative.

A ROW lease/grant will be issued to Genesis Solar, LLC (Genesis), for a term of 30 years with a right of renewal so long as the holder is complying with the lease/grant and applicable laws. The ROW lease/grant will allow Genesis, the right to use, occupy and develop the described public lands to construct, operate, maintain, and decommission a concentrated solar thermal electric generating facility with two adjacent, independent solar plants. Each plant will have a 125-megawatt (MW) nominal capacity, for a total project capacity of 250 MW. The lease/grant is for 1,950 acres, of which 1,746 acres will be disturbed. The project site is located approximately five miles north of the I-10 freeway and 25 miles west of the city of Blythe, California in eastern Riverside County, in Township 6 South, Ranges 18 and 19 East.

Genesis may, on approval from the BLM, assign the ROW lease/grant to another party in conformance with the Part 2800 ROW regulations. Construction of the project will occur in three phases. The BLM typically requires the initiation of project construction within two years of the issuance of a ROW lease/grant. In addition, initiation of construction will be conditioned on final BLM approval of the construction plans. This approval will take the form of an official Notice to Proceed (NTP) for each phase or partial phase of construction. If the Selected Alternative does not progress to construction or operation and a change is proposed that appears to the BLM to be a new project proposal on the approved project site, that proposal is subject to additional NEPA review (40 CFR 1502.9(c)).

The ROW is conditioned on implementation of mitigation measures and monitoring programs as identified in the PA/FEIS, the BO issued by the United States Fish and Wildlife Service (USFWS), the National Historic Preservation Act (NHPA) Section 106 Programmatic Agreement (PA), the California Energy Commission (CEC) Conditions of Certification, and the issuance of all necessary local, State, and federal approvals, authorization, and permits.

The project will interconnect with the regional electric grid at the planned Colorado River Substation about 10 miles southeast of the site. Figure 1, provided in Appendix 7, Maps, shows the location of the project site.

Genesis cannot begin construction until compliance with federal, state, and local laws and regulations is completed. Once federal, state, and local approvals, permits, and authorizations are obtained by Genesis, BLM will issue an NTP. Construction is planned to begin in December 2010. The project is expected to begin delivering power to the grid in May 2013.

GSEP is one of the first large-scale solar energy generation projects approved on public lands. The BLM worked closely with state and federal partners and the public in an unprecedented collaborative effort. Through this process, the BLM has gained insights into the complexity of permitting utility-scale renewable energy projects on diverse public lands, and the need for flexibility throughout the process. The BLM will continue to engage agency partners and the public in this constantly evolving environment.

### **1.1.1 Application/Applicant**

NextEra™ Energy Resources, LLC submitted a Standard Form 299 application with the BLM Palm Springs/South Coast Field Office for a ROW lease/grant. To facilitate permitting of the GSEP, the developer requested that the BLM issue a ROW lease/grant to a project-specific company, Genesis, which is a wholly-owned subsidiary of NextEra™ Energy Resources, LLC. Genesis' technical and financial capability is discussed in Section 3.2.8 of this ROD.

### **1.1.2 Purpose and Need for the Proposed Action**

The BLM's purpose and need for the GSEP is to respond to Genesis' application under Title V of FLPMA for a ROW lease/grant to construct, operate, maintain and decommission a solar thermal facility on public lands in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws. Specifically, the BLM has decided to approve a ROW lease/grant to Genesis for the Selected Alternative. The CDCA Plan is specifically amended by this ROD to allow a solar energy generation facility on this site.

### **1.1.3 EIS Availability, 30 Day Review, Protests**

Pursuant to a July 2007 Memorandum of Understanding (MOU) between the BLM and CEC for the joint environmental review of solar energy projects, the BLM and CEC jointly prepared a CEC Staff Assessment and BLM Draft Environmental Impact Statement (SA/DEIS) for the GSEP, which included analysis of no action/no project alternatives, and several alternatives in addition to the proposed project. The SA/DEIS was circulated for agency and public comment between April 9, 2010, and July 8, 2010; those comments and BLM's responses are provided in the PA/FEIS. Comments on the SA/DEIS were used to develop the PA/FEIS.

Copies of the PA/FEIS (DOI Control No. FES 10-42) dated August 2010 are available at the BLM Palms Springs / South Coast Field Office (1201 Bird Center Drive, Palm Springs, California 92262) and the BLM California Desert District Office (22835 Calle San Juan de Los Lagos, Moreno Valley, California 92553). The PA/FEIS also is available online at the BLM website at: [http://www.blm.gov/ca/st/en/fo/palmsprings/Solar\\_Projects/Genesis\\_Ford\\_Dry\\_Lake.html](http://www.blm.gov/ca/st/en/fo/palmsprings/Solar_Projects/Genesis_Ford_Dry_Lake.html).

Although not part of its normal EIS process, because of the unique nature of these projects and information gathered after the SA/DEIS had been published, the BLM made the PA/FEIS available for an additional 30-day public review/comment period. This comment period ran concurrently with the standard land use plan protest period from August 27, 2010, to September 27, 2010. Ten comment letters were submitted on the PA/FEIS. All substantive comments received during the 30-day protest period were reviewed and responded to by the BLM in this ROD. The BLM's responses to these comments are included in Appendix 1 to this ROD, Response to Comments on the PA/FEIS. Three protests were filed; all have been resolved by the Director or withdrawn. After issuing this ROD for the GSEP, the BLM will publish a Notice of Availability of the ROD in the Federal Register.

#### **1.1.4 Authority under FLPMA and NEPA**

##### **Federal Land Policy and Management Act of 1976**

The FLPMA establishes policies and procedures for the management of public lands. In Section 102(a)(8), Congress declared that it is the policy of the United States that:

*...the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use (43 U.S.C.1701(a)(8)).*

FLPMA Section 202 and the regulations implementing FLPMA's land use planning provisions (43 CFR subparts 1601 and 1610) provide a process and direction to guide the development, amendment, and revision of land use plans for the use of the public lands.

Title V of FLPMA (43 United States Code (USC) §§ 1761-1771) provides the authority for the issuance of a ROW lease/grant on, over, under, and through the public lands for systems for generation, transmission, and distribution of electric energy. The BLM's implementation of this statutory authority for ROW authorizations is detailed in the 43 CFR Part 2800 regulations. The BLM Authorized Officer (AO) administers the ROW lease/grant and ensures compliance with its terms and conditions. The AO is any employee of the DOI to whom the agency has delegated the authority to perform the duties described in 43 CFR Part 2800. This authority is derived from the authority of the Secretary of the Interior, and may be revoked at any time. The authority to approve all actions pertaining to the granting and management of Title V ROWs on public lands is delegated to the respective BLM State Directors (BLM Manual 1203, Appendix 1,

p.33). In California, the authority of the BLM State Director to approve actions pertaining to the granting and management of Title V ROWs has been further delegated to the Field Manager, Bureau of Land Management, Palm Springs-South Coast Field Office, who will be responsible for managing this lease/grant.

### **National Environmental Policy Act**

Section 102(c) of the National Environmental Policy Act (NEPA) (42 USC 4321 et seq.) and the Council on Environmental Quality (CEQ) and DOI implementing regulations (40 CFR Parts 1500–1508 and 43 CFR Part 46) provide for the integration of NEPA into agency planning to ensure appropriate consideration of NEPA's policies and to eliminate delay.

When taking actions such as approving CDCA Plan Amendments and ROW lease/grants, the BLM must comply with NEPA and the CEQ regulations implementing NEPA. Compliance with NEPA assists federal officials in making decisions about projects and planning that are based on an understanding of the environmental consequences of the decision, and identifying actions that protect, restore, and enhance the environment. The SA/DEIS, PA/FEIS, and this ROD document BLM's compliance with the requirements of NEPA for the GSEP.

### **CDCA Plan**

In furtherance of its authority under the FLPMA, the BLM manages public lands in the California Desert District pursuant to the CDCA Plan and its amendments. The CDCA Plan, while recognizing the potential compatibility of solar generation facilities on public lands, requires that all sites associated with power generation or transmission not specifically identified in the CDCA Plan for a particular site be considered through the Plan amendment process. Because the CDCA Plan has not previously identified the GSEP for power generation, the Plan must be further amended to allow a solar energy generation project on that site. The planning criteria for considering an amendment to the CDCA Plan are discussed in CDCA Plan Chapter 4.10, *Land Use and Corridor Analysis*.

### **Guidance and Regulations**

The BLM processes ROW applications for solar development in accordance with 43 CFR 2804.25 and the BLM's 2008 "Guidance for Processing Applications for Solar Power Generation Facilities on BLM Administered Public Lands in the California Desert District" which supplements the BLM's solar energy development policy (IM 2007-097). The 2008 document states:

*When all or part of a proposed renewable energy project is located in a designated utility corridor, the impacts of occupying the utility corridor must be analyzed, along with alternatives that would help mitigate the impacts to the utility corridor. The EIS prepared for a proposed solar energy project should analyze the impact that the project would have on the ability of the utility corridor to serve its intended purpose, i.e., would the corridor continue to retain the capacity to site additional utilities in the corridor or would the project so constrain the available land within the corridor that it would limit the corridor's ability to locate additional linear facilities, e.g. transmission lines, pipelines, etc.*

As discussed in PA/FEIS Section 3.6.3, *Existing Situation*, the GSEP is not within designated corridors; however, ancillary facilities associated with the project will be within a Section 368 Designated Corridor as defined by the Energy Policy Act, 42 U.S.C. 15926 (identified as Corridor 30-52, two miles in width) as well as a locally-designated Corridor K.

The potential project impacts related to occupying a utility corridor are evaluated in PA/FEIS Section 4.6, *Impacts on Lands and Realty*. In the immediate vicinity of the project site and within affected utility corridors, additional capacity is available for future projects. Joint use of the corridor is adequate to accommodate the GSEP and its ancillary facilities, as well as authorized but not yet built and proposed projects.

### **Other Authorities and Policies**

In conjunction with FLPMA, applicable BLM authorities and policies also include:

- Energy Policy Act (119 Stat. 594, 660), Section 211, which states “It is the sense of the Congress that the Secretary of the Interior should, before the end of the 10-year period beginning on the date of enactment of this Act, seek to have approved non-hydropower renewable energy projects located on public lands with a generation capacity of at least 10,000 megawatts of electricity.”
- Solar Energy Development Policy (April 4, 2007), which states that the BLM’s general policy, issued under Instruction Memorandum 2007-097 Solar Energy Development Policy, is to facilitate environmentally responsible commercial development of solar energy projects on public lands and to use solar energy systems on BLM facilities where feasible. Applications for commercial solar energy facilities will be processed as ROW authorizations under Title V of FLPMA and 43 CFR Part 2800. Commercial concentrating solar power or photovoltaic electric generating facilities must comply with BLM’s planning, environmental, and ROW application requirements, as do other similar commercial uses.
- Executive Order 13212 (May 18, 2001), which mandates that agencies act expediently and in a manner consistent with applicable laws to increase the “production and transmission of energy in a safe and environmentally sound manner.”
- Secretarial Order 3285 (March 11, 2009 as amended February 22, 2010), which “establishes the development of renewable energy as a priority for the Department of the Interior.”

### **DOE Authority under EAct**

The DOE is a cooperating agency with the BLM on the PA/FEIS for the GSEP. The Energy Policy Act of 2005 (EAct), as amended by Section 406 of the American Recovery and Reinvestment Act of 2009 (ARRA), Public Law 111-5, established a Federal loan guarantee program for eligible energy projects. Title XVII of the EAct authorizes the Secretary of Energy to make loan guarantees for a variety of types of projects, including those that “avoid, reduce or sequester air pollutants or anthropogenic emissions of greenhouse gases, and employ new or

significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued.” The purposes of the loan guarantee program are to encourage commercial use in the United States of new or significantly improved energy-related technologies and to achieve substantial environmental benefits. The DOE’s purpose and need for action is to comply with its mandate under Title XVII of the EPAct by selecting eligible projects that meet the goals of the Act. Genesis applied for a DOE loan guarantee under Title XVII of the Act, as amended.

## **1.2 Information Developed Since the PA/FEIS**

Since the publication of the PA/FEIS, some changes have been made to the Plan of Development (POD) to clarify potential impacts to resources. The BLM prepared a Determination of NEPA Adequacy (DNA) Worksheet as an internal administrative tool to assess the potential effects of the post-FEIS alterations to the POD. The DNA is included as Appendix 2 of this ROD. The POD will govern any inconsistency of fact relating to the project description.

Since the publication of the PA/FEIS, the BLM has refined its understanding of the proposed accounting surface methodology for the Colorado River and its potential applicability to the GSEP. Due to the uncertainty of the current methodology, the BLM is not making a determination as to whether the groundwater for the GSEP is hydrologically connected to the Colorado River. The BLM has thoroughly reviewed the regulatory framework regarding the use of the accounting surface methodology of determining impacts to the Colorado River and determined that no formal regulation exists that requires Genesis to acquire an allocation at this time. The Bureau of Reclamation has not finalized its rule on the accounting surface methodology for the Colorado River. This ROD recognizes that, should a rulemaking be finalized on the currently proposed accounting surface method, the BLM will work with Genesis to ensure that appropriate processes are followed to obtain such an allocation.

Since the publication of the PA/FEIS, fall surveys for botanical resources have been completed for the project site. The surveys did not encounter any plant species not previously identified during other botanical surveys and documented in the PA/FEIS.

Per BLM regulations all cactus on-site must be salvaged. Species to be salvaged include cottontop cactus, California barrel cactus, common fishhook cactus beavertail cactus, silver cholla, and pencil cholla. Salvaged material will be used in the restoration areas and around the on-site facilities. Should excess succulents be removed that cannot be transplanted, their disposition will be managed by the BLM.



## **1.3 Decisions Being Made**

### **1.3.1 Bureau of Land Management Right-of-Way**

Under federal law, the BLM is responsible for processing requests for ROW applications to determine whether and to what extent to authorize proposed projects such as renewable energy projects and other appurtenant facilities on land it manages. Because the project is a privately initiated venture that would be sited on lands managed by the BLM, Genesis applied for a ROW from the BLM pursuant to the BLM regulations. The BLM has limited the lease/grant to those lands necessary for constructing, operating, maintaining, and decommissioning the authorized facilities on public lands. In addition, the lease/grant includes conditions based on the PA/FEIS, the BO, the Programmatic Agreement, and other applicable federal rules and regulations to protect public health and safety and ensure that the project will not result in unnecessary or undue degradation of the public lands. On approval of the ROW lease/grant, Genesis will be authorized to construct and operate a 1,950-acre (1,746 acres disturbed), 250-MW solar project if it meets the requirements specified in this ROD. The ROD requires Genesis to secure all necessary local, state and federal permits, authorizations and approvals before the BLM will issue an NTP for the first of three phases of the project. On receipt of the NTP, and consistent with it, Genesis will be able to construct and operate the GSEP on the proposed site.

### **1.3.2 Land Use Plan Amendment**

The management of BLM lands in the California Desert is governed by the CDCA Plan. The CDCA Plan, while recognizing the potential compatibility of solar generation facilities on public lands, requires that all sites associated with power generation or transmission not specifically identified in the CDCA Plan for a specific project site be considered through the CDCA Plan amendment process. The planning criteria for considering an amendment to the CDCA Plan are discussed in CDCA Plan Chapter 4.10, *Land Use and Corridor Analysis*.

The site is currently classified as Multiple-Use Class (MUC) M (Moderate Use) in the CDCA Plan. The CDCA Plan provides guidance concerning the management and use of BLM lands in the California Desert while balancing other public needs and protecting resources. The CDCA Plan contemplates industrial uses analogous to the solar use analyzed by the proposed plan amendment, including utility rights-of-way outside of existing corridors, power plants, and solar energy development and transmission (CDCA Plan, p.95). The CDCA Plan provides in its guidelines that solar development in Class M areas “may be allowed after NEPA requirements are met” (CDCA Plan, p. 15). In the CDCA Plan ROD, the Assistant Secretary for Land and Water Resources discussed remaining major issues in the final CDCA Plan before he approved the same (CDCA ROD, p.10 et seq.). One of the remaining major issues was the allowance of wind, solar, and geothermal power plants within designated Class M lands (CDCA ROD, p. 15). The ROD recognized that “These facilities are different from conventional power plants and must be located where the energy resource conditions are available. An EIS will be prepared for individual projects.” The recommended decision, which was ultimately approved, noted:

*Keep guidelines as they are to allow these power plants if environmentally acceptable. Appropriate environmental safeguards can be applied to individual project proposals which clearly must be situated where the particular energy resources are favorable.*

This issue, the allowance of wind, solar, and geothermal power plants on designated Class M lands in the CDCA, was approved by the Assistant Secretary for Land and Water Resources and concurred in by the Secretary of the Interior on December 19, 1980. According to its terms, the BLM must amend the CDCA Plan to allow siting of a solar power generating facility within the CDCA on MUC M lands.

Based on the MUC Guidelines provided in Table 1 in the CDCA Plan, solar uses are conditionally allowed in the MUC M designation contingent on NEPA requirements being met for the proposed use. The PA/FEIS and this ROD meet NEPA requirements for consideration of the project and the project site as suitable for solar development. The CDCA Plan is specifically amended by this ROD to allow the GSEP Selected Alternative to be located on public lands as identified in the ROW lease/grant (Serial number CACA-048880).

### **1.3.3 What is Not Being Approved**

During pre-application, Genesis contacted the BLM to evaluate a number of potentially feasible sites. The BLM discouraged Genesis from including in its application alternate BLM locations with significant environmental concerns, such as critical habitat, Areas of Critical Environmental Concern (ACECs), Desert Wildlife Management Areas (DWMAs), designated OHV areas, wilderness study areas, designated wilderness areas, or other sensitive resources. The BLM encouraged the applicant to design a project with the fewest potential conflicts. As discussed in PA/FEIS 2.6, *Alternatives Considered but Eliminated from Detailed Analysis*, 20 other locations, technologies and methods were considered but eliminated from detailed analysis under NEPA. Six alternatives were developed for full consideration in the PA/FEIS, including a no action alternative, a no project alternative with an amendment to identify the site as suitable for solar development, a no project alternative with an amendment to identify the site as unsuitable for solar development, the proposed action, a dry cooling alternative, and a reduced acreage alternative. Ultimately, the dry cooling alternative was determined to be preferable to the proposed project.

After consideration of the impact analysis in the PA/FEIS and comments from the public, federal and State agencies, and local groups and individuals, the Selected Alternative is the Agency Preferred Alternative in the PA/FEIS (Dry Cooling Alternative). No other alternatives or portions of alternatives are being approved.

## **1.4 Right-of-Way Requirements**

The BLM uses SF 2800-14 BLM (ROW Lease/Grant) to authorize the ROW lease/grant for the project; it includes the POD and all other terms, conditions, stipulations, and measures required as part of the lease/grant authorization. Consistent with BLM policy, the GSEP ROW lease/grant will include a diligent development and performance bonding requirement for installation of facilities consistent with the approved POD. Construction of solar energy facilities must commence within two years after the effective date of the ROW lease/grant for the ROW holder to be compliant with the terms of the grant.

Genesis must obtain a Notice to Proceed (NTP) from BLM before it can commence construction for each phase of development. Three phases of development requiring an NTP include: Phase 1 – Construction of perimeter fencing surrounding the project area and construction of the access road labeled as “Parcel B” in the ROW lease/grant Legal Description; Phase 2 – Grading of the Project Site labeled as “Parcel C” and construction of Unit 1 Solar Facilities; and Phase 3 – Construction of Unit 2 Solar Facilities and Linear Facilities, including transmission lines. Construction of each subsequent phase must begin within three years of the start of construction of the previous phase. The NTP for a phase of development may be subject to the issuance of additional NTPs for specific activities within that development phase.

### **Post-approval Siting Conformance**

Surface disturbance locations and acreages identified in the PA/FEIS are anticipated to be sufficient for the construction and operation (including maintenance) of the project and all ancillary improvements. However, specific linear route alignments and other project engineering refinements often continue past the project approval phase and into the construction and operation phases. As a result, facility locations, work area locations and disturbed acreages locations documented in the PA/FEIS often have minor location shifts after project approval. Genesis has conducted resource surveys beyond the extent of the facility descriptions identified in the PA/FEIS in anticipation of the need to make such adjustments in the construction and operation phase to minimize impacts to resources and facilitate minor changes in facility design.

The following describes the procedures to be used for addressing minor modifications to facility alignment and location. This procedure will be identified as a term and condition of the ROW lease/grant. Subsequent to issuance of the ROW lease/grant, when work areas outside those identified in the ROW are found to be needed (whether on federal or non-federal lands), additional inventory and evaluation will be performed if necessary to ensure the impact on biological, cultural, and other resources are avoided or minimized to the maximum extent practicable. Revised facility locations and survey results would be documented and forwarded to the BLM in the form of a Conformance Request. BLM consultations will be required as necessary prior to approval of the Conformance Request. At the conclusion of project construction or as project phases are completed, as-built drawings must be provided to the BLM for the purpose of conforming the ROW to the as-built locations. All Conformance Requests will be documented and tracked to ensure the acreages of disturbance affected by post-

authorization conformance changes remain within the limits of impacts analyzed in the PA/FEIS and approved in the ROD and ROW lease/grant.

## **1.5 Summary of Conclusions**

The Selected Alternative for the GSEP is the action alternative that provides the most public benefits while reducing impacts to cultural, biological, and hydrological resources for the following reasons:

- As a result of consultation with Tribal governments and representatives and the Programmatic Agreement, many cultural resources in the area are avoided by the Selected Alternative or the impacts are substantially mitigated.
- Based on the conditions in the BO and the ongoing consultation with the USFWS during project construction and operations, many biological resources in the area are avoided by the Selected Alternative or the impacts are substantially mitigated.
- In addition to the mitigation provided for in this ROD, Genesis, through the protest negotiation process, has agreed to install a security gate and/or guard at the south end of the access road to the GSEP site to prevent unauthorized access.

Additionally, the GSEP is expected to provide climate change, employment, and energy security benefits to California and the nation. The project takes a major step toward meeting State and federal climate change goals. It will provide clean electricity to power an estimated 75,000 homes, and bring needed jobs to the area. Eastern Riverside County has a high unemployment rate: 12.7 percent (PA/FEIS, p. 4.13-4). The project is expected to create 1,085 jobs during peak construction, as well as 65 permanent, full-time jobs during the plant's operation (PA/FEIS, p. 4.13-2 and p. 4.13-10).

## **2. Mitigation and Monitoring**

### **2.1 Required Mitigation**

The GSEP includes the following measures, terms, and conditions:

- Avoidance, Minimization, and Mitigation Measures provided in this ROD, Appendix 6, Environmental and Construction Compliance Monitoring Program's (ECCMP) Attachment K, Summary of California Energy Commission Conditions of Certification and Bureau of Land Management Monitoring and Mitigation Measures. The complete language of the final Conditions of Certification is in the CEC's *Genesis Solar Energy Project Commission Decision*, dated September 29, 2010. The complete language of the BLM Monitoring and Mitigation Measures is in the PA/FEIS, as amended by *Errata* (Section 6.0 of this ROD) and *Information Developed since the PA/FEIS*, (Section 1.2 of this ROD). The ECCMP Attachment K lists all monitoring and mitigation measures that apply to GSEP. If there is any discrepancy between the PA/FEIS and the list in Attachment K, the list shall prevail.
- Terms and Conditions in the FWS BO provided in Appendix 4, Biological Opinion, of this ROD, as may be amended over time; and
- Terms and Conditions in the Programmatic Agreement provided in Appendix 5, Programmatic Agreement, of this ROD which supersedes the mitigation measures identified in the PA/FEIS as BLM-CUL-1 through BLM-CUL-9.

The complete language of these measures, terms, and conditions is in the POD for the GSEP as stipulated in the ROW lease/grant for compliance purposes. These measures, terms, and conditions are determined to be in the public interest pursuant to 43 CFR 2805.10(a)(1).

### **2.2 Monitoring, Mitigation and Enforcement**

Federal regulations require the BLM (40 CFR 1505.3), or other appropriate consenting agency, to implement mitigation (40 CFR 1505.2(c)) and other conditions as established in the PA/FEIS or during its review and committed as part of the decision unless such agency explains why such measures were not adopted. The agency may also provide for monitoring to assure that its decisions are carried out and should do so in important cases. The BLM must adopt a monitoring and enforcement program where applicable for any identified mitigation (40 CFR 1505.2(c)). The BLM shall:

- Include appropriate conditions in lease/grants, permits or other approvals;
- Condition funding of actions on mitigation;
- Upon request, inform cooperating or commenting agencies on progress in carrying out mitigation measures they have proposed and that were adopted by the agency making the decision; and
- Upon request, make publicly available the results of relevant monitoring (40 CFR 1505.3).

As the federal lead agency for the GSEP under the NEPA, the BLM is responsible for ensuring compliance with all adopted mitigation measures. The complete language of all the mitigation measures, terms and conditions and stipulations are found in the BO, Programmatic Agreement, ROW lease/grant and in the PA/FEIS, as amended by this ROD in *Errata* (Section 6) and *Information Developed since the PA/FEIS* (Section 1.2). Failure on the part of Genesis to adhere to these mitigation measures, terms and conditions and stipulations could result in administrative actions up to and including a termination of the ROW lease/grant and requirements to remove the facility and rehabilitate disturbances. All practicable means to avoid or minimize environmental harm have been adopted under this decision.

## **2.3 Mitigation Measures Not Adopted**

Consistent with 40 CFR 1505.2(c), all practicable means to avoid or minimize environmental harm from the GSEP have been adopted. Also as discussed above, the ECCMP for the project has been adopted and is provided in Appendix 6 of this ROD. There are four BLM mitigation measures that have not been adopted in this ROD which are identified below and include the rationale for not adopting them:

*BLM-REC-1:* This mitigation measure requires the applicant to prepare and distribute informational materials to users in specific recreation areas.

*BLM-REC-2:* This mitigation measure requires the applicant to engage the public to identify recreation prescriptions to provide alternative opportunities for recreation including management, marketing, monitoring, and administrative actions.

**Rationale:** There is a lot of overlap between BLM REC-1 and REC-2 and thus the rationale for their elimination is the same. The activities described above are inherently BLM actions and would be initiated by BLM with assistance from Genesis as needed. The BLM will work with Genesis to prepare and distribute informational materials that include project construction information and alternative areas available for recreation. In addition, BLM REC-2 would require that Genesis engage the public to “identify specific management prescriptions to provide alternative recreational opportunities and experiences on the lands outside the GSEP site boundary”. It is not within Genesis’ authority to initiate such an action that is clearly an inherently BLM function.

*BLM-REC-3:* This mitigation measures requires the applicant to coordinate construction activities and the GSEP construction schedule with the authorized officer for the recreation areas impacted and that they shall schedule construction activities to avoid heavy recreational use periods.

**Rationale:** This mitigation measure is already addressed in the ECCMP (ROD, Appendix 6) in the form of other required notifications to BLM for which Genesis is responsible. Additionally, there are no identified “heavy recreational use periods” in the vicinity of the GSEP.

*BLM-REC-4:* This mitigation measures requires that the applicant coordinate with the authorized officer for the applicable federal, State, or local parks and recreational facilities at least 60 days

before construction in order to identify alternative recreation facilities that may be used by the public during construction.

Rationale: The only local park is Joshua Tree National Park and the National Park Service will be notified by the BLM when construction commences. There are no other recreational facilities in reasonable proximity to GSEP that would need such a notification.

## **2.4 Statement of All Practicable Mitigation Adopted**

In accordance with the BLM *NEPA Handbook H-1790-1* and 40 CFR 1505.2(c), all practicable mitigation measures that are necessary to fully mitigate the potential effects of GSEP according to laws, rules, policies and regulations have been adopted by this ROD.

## **2.5 Coordination with other BLM Monitoring Activities**

In 2007, the BLM and the CEC formalized a Memorandum of Understanding (MOU) for the joint environmental review of solar thermal power plant projects to be located on public lands. In September 2010, that MOU was amended to ensure that jointly reviewed and approved solar thermal power plant projects, located on public lands, are constructed, operated, maintained, and terminated in conformity with the decisions issued by the BLM and the CEC. The MOU Amendment specifically indicates that it is in the interest of the BLM and CEC

*...to share in construction compliance, environmental compliance, design review, plan check, and construction, maintenance, operation and termination inspection (collectively 'compliance review') of solar thermal power plant projects on public lands, to avoid duplication of staff efforts, to share staff expertise and information, to promote intergovernmental coordination at the state and Federal levels, to develop a more efficient compliance review process, and to meet state and Federal requirements.*

As documented in the MOU Amendment, the BLM will provide primary compliance oversight for the ROW terms and conditions that are required by the BLM and that are separate and apart from those for which the primary oversight is being administered by the CEC. Furthermore, the BLM and CEC agree to communicate and cooperate in a manner in order to avoid duplication of efforts and to assist each other in effective implementation of compliance efforts for the construction, maintenance, operation, and termination or decommission of the GSEP. The MOU Amendment is an attachment to the ECCMP provided in Appendix 6 of this ROD.

The BLM recognizes that the CEC conditions of certification (COCs) are not generally within the enforcement authority of the BLM because those COCs are requirements originating in State law and regulations. While Genesis must comply with those measures, they are not directly enforceable by the BLM. For those COCs that are also within the enforcement authority of the BLM because of overlapping authorities, the BLM has incorporated those COCs into its ROW

lease/grant as its own terms and conditions subject to its enforcement authority. Appendix 6, Environmental and Construction Compliance Monitoring Program, contains a list of the CEC's COCs and denotes those measures that will be monitored and managed by the CEC, and those that will be subject to joint administration between the BLM and CEC.

In some instances, the BLM identified potential mitigation measures for impacts to public land resources that would not be, and have not been, identified as mitigation measures required by other agencies. In those instances, individual mitigation measures were developed by the BLM which were incorporated in the ROW lease/grant, and will be monitored and managed solely by the BLM. In addition, standard terms and conditions for approval of the use of public land were incorporated in the ROW lease/grant and, therefore, will be enforced by the BLM as part of any ROW lease/grant approved for the GSEP.

The BLM also is developing a protocol for long-term monitoring of solar energy development with Argonne National Laboratories and DOE. The draft protocol recommends the development of a comprehensive monitoring program covering a broad list of resources. The draft protocol also recommends the involvement of other federal and State agencies with a likely interest in long-term monitoring, as well as stakeholder engagement. As the protocols are finalized for this monitoring program, the BLM expects to participate fully in these endeavors and to engage solar energy applicants. As long-term monitoring plans evolve, the BLM and its representatives, such as contractors, may exercise the United States' retained right to access the lands covered by the grant, and conduct long-term monitoring activities.



## **3. Management Considerations**

### **3.1 Decision Rationale**

This decision approves a ROW lease/grant and associated plan amendment for the GSEP in accordance with the Agency Preferred Alternative (Selected Alternative) as analyzed in the PA/FEIS. The BLM's decision to authorize this activity and amend the CDCA plan is based on the rationale described throughout the ROD and as detailed in the following sections.

#### **3.1.1 Respond to Purpose and Need**

Approval of the ROW lease/grant for the Selected Alternative responds to the BLM's purpose and need for the GSEP by responding to Genesis' application under Title V of FLPMA for a ROW lease/grant to construct, operate, maintain and decommission a solar thermal facility on public lands in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws. The BLM's decision to amend the CDCA Plan is also necessary for meeting the agency's purpose and need for the action.

The CDCA Plan, while recognizing the potential compatibility of solar generation facilities on public lands, requires that all sites associated with power generation or transmission not already identified in that plan be considered through the plan amendment process. Therefore, prior to issuance of a ROW lease/grant for the GSEP, the BLM will amend the CDCA Plan as required to allow for that solar use on the project site.

Under the Energy Policy Act of 2005, federal agencies are encouraged to approve the development of renewable energy on public lands. By entering into an MOU with the CEC, National Park Service (NPS), DOE, and the U.S. Army Corps of Engineers (USACE), the BLM has committed to work with State and federal agencies to achieve California's Renewable Portfolio Standards' (RPS) energy goals and greenhouse gas emission reduction standards in a manner that is both timely and in compliance with federal and State environmental laws. The purpose of the MOU is to assist with the implementation of applicable State and federal laws, regulations, and policies.

The construction, operation, maintenance, and decommission activities associated with the Selected Alternative, either singularly or with mitigation, are in conformance with the following land use plans and policies:

- BLM policy and guidance for issuing ROW lease/grants, including BLM Manual 2801.11;
- CDCA Plan; and
- Northern & Eastern Colorado Desert Coordinated Management Plan, 2002.

The Selected Alternative meets the BLM purpose and need for the GSEP.

### **3.1.2 Achieve Goals and Objectives**

The Selected Alternative accomplishes the objectives of the purpose and need, including meeting power demand, as well as federal and state objectives for renewable energy development. The Selected Alternative provides for the best balance between maximizing renewable energy capacity while reducing adverse impacts as compared to the other action alternatives. The project complies with CDCA Plan objectives for the MUC-M (Moderate), land use designation. MUC-M lands are managed in a controlled balance between higher-intensity use and protection. A wide variety of uses, such as mining, livestock grazing, recreation, energy, and utility development are allowed. The project complies with MUC-M guidelines.

## **3.2 Required Actions**

The following federal statutes require that specific actions be completed prior to issuance of a ROD and project approval:

### **3.2.1 Endangered Species Act of 1973**

Under Section 7 of the Endangered Species Act, as amended (ESA, 16 U.S.C. 1531 et seq.) a federal agency that authorizes, funds, or carries out a project that “may affect” a listed species or its critical habitat must consult with the USFWS. The BLM submitted a Biological Assessment (BA) and initiated formal consultation for the desert tortoise with the USFWS for the project on July 1, 2010. The USFWS issued a BO for the GSEP on November 2, 2010, which is provided in Appendix 4 of this ROD. The BO concluded that the GSEP is likely to adversely affect desert tortoise but not jeopardize its survival and recovery in the wild. Desert tortoise designated critical habitat will also be adversely affected; however, the USFWS concluded that the project would not adversely modify or destroy designated critical habitat. Measures included in the BO will reduce any anticipated adverse impacts, and the BLM’s issuance of an NTP will require that Genesis complies with the BO. Furthermore, the ROW lease/grant contains a standard stipulation that requires compliance with the BO.

### **3.2.2 Bald and Golden Eagle Protection Act**

The Bald and Golden Eagle Protection Act (16 U.S.C. 668a-d) provides for the protection of bald and golden eagles by prohibiting, except under certain specified conditions, disturbance or harm of these species. To comply with the Act and based on the USFWS’s recommendation (memo dated September 15, 2010, available as part of the project record), and in accordance with BLM’s IM 2010-156, the BLM will require Genesis to develop an Avian Protection Plan (APP) within six months of initiating facility construction. This APP will identify steps Genesis will take to ensure eagle impacts are mitigated to the extent possible including but not limited to on-going surveys, impact monitoring, and facility design.

### **3.2.3 National Historic Preservation Act**

Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470) requires federal agencies to take into account the effects that their approvals and federally funded activities and programs have on significant historic properties. "Significant historic properties" are those properties that are included in, or eligible for, the National Register of Historic Places. The BLM initiated consultation for the GSEP under Section 106 of the NHPA, and the requisite process has been completed. A Programmatic Agreement reached for this project pursuant to 36 CFR 800.14(b) and involving BLM, the California State Historic Preservation Officer (SHPO), Advisory Council for Historic Preservation and other signatories is provided in Appendix 5, Programmatic Agreement, of this ROD. The terms and conditions of the Programmatic Agreement supersede the mitigation measures identified in the PA/FEIS as BLM-CUL-1 through BLM-CUL-9.

### **3.2.4 Clean Air Act as Amended in 1990**

40 CFR 51 (Subpart W - Determining Conformity of General Federal Actions to State or Federal Implementation Plans), 40 CFR 93 (Subpart B - Determining Conformity of General Federal Actions to State or Federal Implementation Plans) and 42 U.S.C. Section 7606(c) require federal actions to comply with the requirements of the 1990 amendments to the Clean Air Act (CAA, 42 U.S.C 7401-7671). The GSEP is expected to meet the requirements of the CAA based on compliance with the project mitigation, terms, conditions, and stipulations related to emission controls and reductions during project construction, maintenance, operation, and decommission.

### **3.2.5 Incorporation of CDCA Plan Considerations**

The CDCA Plan Amendment is warranted. The record indicates that the Selected Alternative for the GSEP can be constructed on BLM-administered lands, and that project construction will result in fewer significant, unmitigable impacts to biological, cultural, water, and visual resources than would occur with the other alternatives with comparable energy production analyzed in the PA/FEIS. The approval of the site location based upon NEPA satisfies the requirements of the CDCA Plan.

### **3.2.6 Identify Site Location per CDCA Plan**

The BLM has found that the lands in the Selected Alternative are suitable and can be designated for solar energy development based on compliance with the requirements of NEPA. The CDCA Plan Amendment applies to the public lands within the boundary of the site for the Selected Alternative shown in Appendix 7, Maps. The legal description of the project site is described in the ROW lease/grant. The approval of the site location satisfies the requirements of the CDCA Plan.

### **3.2.7 Statement of No Unnecessary or Undue Degradation**

Congress declared that the public lands be managed for multiple use and sustained yield, in a manner to protect certain land values, to provide food and habitat for species, and to provide for outdoor recreation and human occupancy and use (43 USC 1701 (a)(7)-(8)). Multiple use management means that public land resources are to be managed to best meet the present and future needs of the American public, balanced to take into consideration the long term needs of future generations without permanent impairment of the lands (43 USC 1702(c)). The BLM manages public land through land use planning, acquisition, and disposition, and through regulation of use, occupancy, and development of the public lands (Subchapters II and III, respectively, 43 USC 1711-1722, and 1731-1748).

The FLPMA specifically provides that in managing the use, occupancy, and development of the public lands, the Secretary shall take any action necessary to prevent unnecessary or undue degradation of the lands (43 USC 1732(b)). The process for siting and evaluating the GSEP has included extensive efforts on the part of BLM, Genesis, CEC, public commenters, and other agencies in order to identify a project that accomplishes the purpose and need and other project objectives, while preventing, to the extent possible, any unnecessary or undue degradation of the lands. These efforts have included:

- Siting of the proposed facility in a location in which solar power development can be authorized (following NEPA review), and which has not been specifically designated for the protection of any resources;
- Modification of the proposed boundaries of the facility to minimize impacts to mineral, biological, and other resources;
- Evaluation of project location alternatives which could meet the purpose and need for the proposed project, but result in the avoidance and/or minimization of impacts; and
- The development of mitigation measures, including compensation requirements for the displacement of desert tortoise habitat, to further avoid or minimize impacts.

In addition, the BLM ROW regulations at 2805.11(a)(1) to (5) require determinations for the following:

*BLM will limit the lease/grant to those lands which BLM determines:*

- (1) Will be occupied by authorized facilities;*
- (2) Are necessary for constructing, operating, maintaining, and terminating the authorized facilities;*
- (3) Are necessary to protect public health and safety;*
- (4) Will not unnecessarily damage the environment; and*
- (5) Will not result in unnecessary or undue degradation.*

The lands identified for the project location are the minimum necessary to accommodate the 1,950-acre project. All areas in the Selected Alternative that are not necessary for the construction, operation, and maintenance of the facilities are removed from the project description. Genesis has consolidated activities within the construction staging area to minimize

the amount of additional temporary workspace needed to construct and assemble facility components. All temporary disturbances associated with underground utilities will be immediately restored to minimize erosion in accordance with approved restoration plans. Public health and safety will not be compromised by the project as construction work areas will be posted and public access to those areas controlled to prevent possible injury to the public. During operations, site security will be maintained with perimeter control fencing and security personnel.

The Selected Alternative will create jobs and income and will effectively reduce greenhouse gas and air pollutant emissions typically associated with fossil-fueled power plants. Based on the comparative analysis of the ability of each alternative to meet the purpose and need, and the environmental impacts that would be associated with each alternative as discussed in the PA/FEIS and as summarized above, the Selected Alternative was identified by the BLM as the alternative that avoids unnecessary damage to the environment and unnecessary or undue degradation of the lands.

As noted above, Congress specifically recognized multiple use and sustained yield management for the CDCA, through the CDCA Plan, providing for present and future use and enjoyment of the public lands. The CDCA Plan identifies allowable uses of the public lands in the CDCA. In particular, it authorizes the location of solar power generating facilities in MUC M and other land classifications upon NEPA review. The BLM has conducted that review, and as indicated in the PA/FEIS and portions of this ROD, has adjusted the project to meet public land management needs and concerns. In particular, the BLM has determined that the Selected Alternative (Dry Cooling Alternative) meets national renewable energy policy goals and objectives and falls within the guidelines of the CDCA Plan.

In addition, the project meets the requirements of applicable ROW regulations inasmuch as it includes terms, conditions, and stipulations that are in the public interest; prevents surface disturbance unless and until an NTP is secured; is issued for a period of 30 years, subject to renewal and periodic review; and contains diligence and bonding requirements to further protect public land resources. This approval provides that public land will be occupied only with authorized facilities and only to the extent necessary to construct, operate, maintain, and decommission the project. The BLM conditions of approval provide for public health and safety and protect the environment and public lands at issue. These conditions of approval include compliance with this ROD, the PA/FEIS, the BO, NHPA Section 106 requirements and the Programmatic Agreement. All of these federal requirements provide the basis for BLM's determination that the project will not unnecessarily or unduly degrade these public lands.

### **3.2.8 Statement of Technical and Financial Capability**

The FLPMA and its implementing regulations provide the BLM the authority to require a project application to include information on an applicant's technical capability to construct, operate, maintain, and decommission the solar energy facilities applied for (43 CFR 2804.12(a)(5)). This

technical capability can be demonstrated by international or domestic experience with solar energy projects or other types of electric energy-related projects on either federal or non-federal lands. Genesis has provided information on the availability of sufficient capitalization to carry out development, including the preliminary study phase of the project, as well as site testing and monitoring activities.

Genesis is a subsidiary of NextEra Energy Resources, LLC, which is a wholly-owned subsidiary of NextEra Energy, Inc., which holds the capital stock and provides funding for its operating subsidiaries such as NextEra Energy Resources, LLC and the Florida Power & Light Company. NextEra Energy, Inc. is a holding company that derives substantially all of its income from its subsidiaries. NextEra Energy Resources, LLC owns, develops, constructs, manages, and operates domestic electric generating facilities that sell power in wholesale energy markets. NextEra Energy, Inc. is the corporate parent and a public holding company incorporated in 1984 in Florida. NextEra Energy Inc.'s principal subsidiary is Florida Power & Light, which has demonstrated experience in the generation, transmission, distribution, and sale of electric energy.

The applicant's statement of technical and financial capability is provided in the POD. Based upon the information provided by Genesis in its POD, the BLM has determined that Genesis has the technical and financial capability required to construct, operate, maintain, and terminate the approved facility.

### **3.3 Relationship to BLM and other Agency Plans, Programs, and Policies**

#### **3.3.1 Tribal Consultation**

The BLM conducted government-to-government consultation with a number of Tribal governments, as described in section 5.2.3 of the PA/FEIS. The consultation and discussions revealed concerns about the importance and sensitivity of cultural resources on and near the GSEP site, concerns about cumulative effects to cultural resources, and, the significance of the broader cultural landscape. As a result of the Native American Consultation process, many important cultural resources were identified in the project area, and subsequently avoided in the Selected Alternative.

As described in Section 3.3.3 below, *NHPA Section 106 Programmatic Agreement*, the BLM also consulted with Native American Tribes and interested tribal members on the development and execution of a Programmatic Agreement for the GSEP. In accordance with 36 CFR 800.14(b), programmatic agreements are used for the resolution of adverse effects for complex project situations and when effects on historic properties (resources eligible for or listed in the National Register of Historic Places) cannot be fully determined prior to approval of an undertaking.

Based on the ongoing consultation with Tribal governments and representatives and the Programmatic Agreement, many cultural resources in the area are avoided by the Selected Alternative or the impacts are substantially mitigated. As a result, the Selected Alternative would result in impacts less than or similar to the other action alternatives related to cultural resources.

### **3.3.2 FWS Section 7 consultation**

The BLM ROW lease/grant, consultation, and coordination with the USFWS required for the GSEP complies with the federal Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.) regarding potential take of the desert tortoise.

The USFWS has jurisdiction over threatened and endangered species listed under the ESA. Formal consultation with the USFWS under Section 7 of the ESA is required for any federal action that may adversely affect a federally-listed species. This consultation was initiated through the preparation and submittal of a BA, which described the proposed action to the USFWS. Following review of the BA, the USFWS issued a BO, which is attached as Appendix 4 of this ROD, specifying the avoidance, minimization and mitigation measures that must be implemented for any protected species. The BO concluded that the GSEP is likely to adversely affect desert tortoise but not jeopardize its survival and recovery in the wild. Desert tortoise designated critical habitat will also be adversely affected; however, the USFWS concluded that the project would not adversely modify or destroy designated critical habitat. Avoidance, minimization and mitigation measures in the PA/FEIS and BO would reduce any anticipated adverse impacts. These measures are mandatory and are conditions of approval of this ROD.

Based on the conditions in the BO and ongoing consultation with the USFWS during project construction and operations, many biological resources in the area are avoided by the Selected Alternative or the impacts are substantially mitigated. As a result, the Selected Alternative would result in biological impacts less than or similar to the other project alternatives.

### **3.3.3 NHPA Section 106 Programmatic Agreement**

Under Section 106 of the NHPA, the BLM consults with Indian tribes as part of its responsibilities to identify, evaluate, and resolve adverse effects on cultural resources affected by BLM undertakings. Adverse effects that the Selected Alternative could have on cultural resources will be resolved through compliance with the terms of a Programmatic Agreement under NHPA Section 106 (16 USC 470; 36 CFR 800.14).

The BLM prepared a Programmatic Agreement for the GSEP in consultation with the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, CEC, interested Native American Tribes (including tribal governments as part of government-to-government consultation described in Section 3.3.1), and other interested parties. The

executed Final Programmatic Agreement, provided in Appendix 5 of this ROD, will govern the continued identification and evaluation of historic properties (eligible for the National Register) as well as the resolution of any effects that may result from the GSEP. Historic properties and historical resources are significant prehistoric and historic cultural resources as determined by the BLM.

## **3.4 Consultation with Other Agencies**

### **3.4.1 Consultation with Other Federal Agencies**

#### **United States Department of Energy**

The DOE is the agency responsible for implementing key parts of the Energy Policy Act of 2005 including the federal loan guarantee program for eligible energy projects that employ innovative technologies. Title XVII of the Energy Policy Act authorizes the Secretary of Energy to make loan guarantees for a variety of types of energy-related projects. The two purposes of the loan guarantee program are to encourage commercial use in the United States of new or significantly improved energy-related technologies and to achieve substantial environmental benefits. The DOE was a cooperating agency with the BLM on the PA/FEIS.

#### **United States Environmental Protection Agency**

The EPA provided written comments on the proposed project and the EIS preparation during the scoping period, as documented in the Scoping Report (January 2010). The EPA also provided written comments during the review period for the SA/DEIS as documented in PA/FEIS Section 5.5, *Public Comment Process*. The EPA also submitted comments on the PA/FEIS. The responses to EPA's comments on the PA/FEIS are provided in Appendix 1, Response to Comments on the PA/FEIS, in this ROD.

#### **National Park Service**

Joshua Tree National Park provided written comments on the SA/DEIS which assisted the BLM in designing the project and understanding the impacts of GSEP.

#### **United States Army Corps of Engineers**

Project-related impacts to Waters of the U.S. require authorization by the USACE pursuant to Section 404 of the Federal CWA under a Standard Individual Permit subject to the CWA Section 404(b)(1) Guidelines. On May 9, 2010, the USACE determined that the project site does not support water resources meeting the definition of Waters of the U.S. and that a CWA permit will not be required.



### **3.4.2 Consultation with State, Regional, and Local Agencies**

Section 5.5, below, lists other federal, State, regional and local agencies with which the BLM and/or Genesis have consulted, as part of one or more of the following project phases: planning, scoping, public review of the SA/DEIS, and public review of the PA/FEIS. In addition to the NEPA coordination process, Genesis may have to obtain permits and other approvals from other agencies or comply with requirements of other agencies that did not provide written input on the project and/or the EIS.

#### **State Water Resources Control Board/Regional Water Quality Control Board**

The State Water Board works in coordination with nine Regional Water Quality Control Boards (RWQCBs) to preserve, protect, enhance and restore water quality. The RWQCBs have authority to protect surface water and groundwater. Throughout the NEPA process, the BLM, CEC, and Genesis have invited the RWQCBs to participate in public scoping and workshops and have provided information to assist them in evaluating the potential impacts and permitting requirements of the proposed project. The USACE determined that the project site does not support water resources meeting the definition of Waters of the U.S. and that a CWA permit will not be required. In the absence of Waters of the U.S., a CWA Section 401 Certification from the Lahontan Regional Water Quality Control Board (RWQCB) will not be required.

#### **California Department of Fish and Game**

The CDFG has the authority to protect water resources through regulation of modifications to streambeds, under Section 1602 of the Fish and Game Code. The BLM, CEC, and Genesis have provided information to the CDFG to assist in their determination of the impacts to streambeds, and identification of permit and mitigation requirements. The CDFG also has the authority to regulate potential impacts to species that are protected under the CESA such as the desert tortoise. The CDFG has asserted its jurisdiction over 69 acres of streambeds for direct impacts to jurisdictional waters to the State, and 21 acres for indirect impacts, within and adjacent to the GSEP. On December 31, 2009, Genesis submitted a Notification of Lake or Streambed Alteration for the GSEP to the CDFG.

#### **Riverside County**

The 1,950-acre Selected Alternative contains no land under the jurisdiction of Riverside County. The BLM and CEC provided opportunities during scoping for the County to provide input to the environmental technical studies for the project. Riverside County Fire submitted comments on the PA/FEIS.

## **3.5 LUP Conformance and Consistency**

### **3.5.1 Conformance with the California Desert Conservation Area Plan**

The FLPMA (43 USC 1701-1782) establishes public land policy, sets forth guidelines for administration, and provides for the management, protection, development, and enhancement of public lands. The FLPMA specifically establishes BLM's authority to grant rights-of-way for the generation, transmission, and distribution of electrical energy at 43 U.S.C. 1761:

(a)The Secretary, with respect to the public lands ... [is] authorized to grant, issue, or renew rights-of-way over, upon, under, or through such lands for -

(4)systems for generation, transmission, and distribution of electric energy

The FLPMA is relevant to the GSEP because it establishes the BLM's authority to grant a ROW on public lands for the generation, transmission, and distribution of electrical energy.

The CDCA Plan was developed as mandated by the FLPMA and is the resource management plan for the GSEP site and the surrounding area within the defined CDCA. The CDCA Plan is a comprehensive, long-range plan for the management, use, development, and protection of the public lands in the CDCA. The 25-million-acre CDCA contains over 12 million acres of BLM-administered public lands in the California Desert. The site proposed for the GSEP includes approximately 1,950 acres of BLM-administered land in the CDCA.

Goals and actions for each resource managed by the BLM are established in the 12 Elements in the CDCA Plan. Each Plan Element provides a Desert-wide perspective of the planning decisions for one major resource or issue of public concern as well as more specific interpretations of multiple-use class guidelines for a given resource and its associated activities.

The GSEP site is classified in the CDCA Plan as MUC M, lands that are managed in a controlled balance between higher-intensity use and protection. A wide variety of uses, such as mining, livestock grazing, recreation, energy, and utility development are allowed in Class M areas. Moreover, the CDCA Plan ROD approved solar electrical generation plants within the MUC M designation. Specifically, the guidelines in the Plan provide that solar electrical generating facilities within MUC M areas "... may be allowed after NEPA requirements are met."

#### **Need for a CDCA Plan Amendment**

To accommodate the GSEP, the CDCA Plan is being amended because "[s]ites associated with power generation or transmission not identified in the Plan will be considered through the Plan Amendment process." As specified in CDCA Plan Chapter 7, *Plan Amendment Process*, there are three categories of Plan Amendments. Approval of the GSEP would require a Category 3 amendment to the CDCA Plan to accommodate a request for a specific use or activity that will require analysis beyond the Plan Amendment Decision.

The CDCA Plan Amendment to identify the site of the Selected Alternative for solar energy generation is provided in this ROD through the following Land Use Plan amendment analysis.

### **Land Use Plan Amendment Analysis**

The Land Use Plan Amendment is a site identification decision only. Because the proposed solar project and its alternatives are located within MUC M, the classification designations govern the type and degree of land use action allowed within each classified area. All land use actions and resource management activities on public lands within an MUC designation must meet the guidelines for that class. MUC M allows electric generation plants for solar facilities after NEPA requirements are met. These guidelines are listed in Table 1, Multiple Use Class Guidelines, in the CDCA Plan (1980, as amended). The specific application of the MUC designations and resource management guidelines for a specific resource or activity are further discussed in the plan elements section of the CDCA Plan. The proposed site location for the GSEP meets the MUC M Guidelines in the CDCA Plan as outlined in detail in Section 4.8 of the PA/FEIS and summarized below:

**Agriculture:** The site is not currently used for agriculture and the Selected Alternative would not use the site for agriculture.

**Air Quality:** The air emissions that would be associated with the Selected Alternative would conform to the Class II objectives in the CDCA Plan.

**Water Quality:** MUC M lands are managed to minimize degradation of water resources, and best management practices (BMPs) will be used to avoid degradation and to comply with Executive Order (EO) 12088. PA/FEIS Section 4.19, *Impacts on Water Resources*, evaluated the alternatives for the potential to impact groundwater and surface water resources. Development and operation of the GSEP raises concerns of groundwater depletion and impacts to drainages and water quality. The selection of the Dry Cooling Alternative and the incorporation of storm water and drainage mitigation measures WATER-1 through WATER-20, would reduce these potential impacts. The water mitigation measures require Genesis to monitor all well activity in the affected groundwater basin and report those findings to the BLM and CEC. All impacts resulting from groundwater pumping that are revealed during the monitoring will be addressed. Although the BLM has not established BMPs for solar projects, it has reviewed, and agrees with the implementation of, the BMPs Genesis developed for GSEP. These BMPs were derived from a variety of sources. Implementation of these BMPs, and BLM's standard terms and conditions requiring compliance with other federal, State, and local regulations, would constitute compliance with EO 12088. Mitigation measures identified in the PA/FEIS and adopted by this Decision conform to the guidelines in Table 1 of the CDCA Plan.

**Cultural and Paleontological Resources:** Archaeological and paleontological values will be preserved and protected as described in PA/FEIS Section 4.4, *Impacts on Cultural Resources*. Procedures described in 36 CFR 800 will be observed where applicable. The Programmatic

Agreement, provided in Appendix 5 of this ROD, specifically addresses compliance with 36 CFR 800 in project construction, operation, maintenance, and decommissioning, including identification of properties listed or eligible for listing on the National Register of Historic Places. The identification of the project site was subject to the MUC Guidelines for cultural and paleontological resource protection as is evidenced by the applicability of the Guidelines to the specific facility proposal. As such, the project and the project site are within the MUC Guidelines for cultural and paleontological resource protection established by the CDCA Plan based on implementation of the PA.

**Native American Values:** Native American cultural and religious values will be protected and preserved on MUC M lands with appropriate Native American groups consulted. Repeated efforts and opportunities were provided to allow tribal entities to raise concerns regarding the project and, as a result, the cultural guidelines with respect to requirements for consultation were met. The concerns raised are addressed in the Programmatic Agreement in Appendix 5 of this ROD. The protection of cultural resources, as addressed in the Programmatic Agreement, ensures that preservation and protection of cultural and religious values is accomplished in accordance with the CDCA Plan MUC Guidelines.

**Electrical Generation Facilities:** Solar generation may be allowed on the project site after NEPA requirements are met. The analysis in the PA/FEIS, which addresses all the project alternatives, comprises the NEPA compliance required for this MUC guideline.

**Transmission Facilities:** Class M guidelines require electric transmission to occur in designated utility corridors. The GSEP meets this guideline by locating new transmission facilities in existing corridors and in the GSEP project footprint.

**Communication Sites:** A communication site would not be installed.

**Fire Management:** Fire suppression measures in Class M areas will be taken in accordance with specific fire management plans, subject to such conditions as the BLM deems necessary. The project site is within the area covered by the BLM California Desert District and the Palm Springs South Coast Field Office and their relevant fire management and suppression policies, as well as by the Riverside County Fire Department.

**Vegetation:** Table 1 of the CDCA Plan includes a variety of guidelines associated with vegetation. These are addressed in the PA/FEIS as follows:

- **Native Plants:** Removal of native plants in Class M areas is only allowed by permit after NEPA requirements are met, and after development of necessary stipulations. Approval of the ROW lease/grant for the Selected Alternative would constitute the permit for such removal. The mitigation measures in the PA/FEIS and conditions of approval described elsewhere in this ROD constitute the stipulations to avoid or minimize impacts from the removal.
- **Harvesting of Plants by Mechanical Means:** Harvesting by mechanical means also is allowed by permit only. Although GSEP includes the collection of succulents and seeds to

assist with reclamation, the removal of these items will not be done for distribution to the public. Also, the guidelines for vegetation harvesting include encouragement of such harvesting in areas where the vegetation would be destroyed by other actions, which would be the case with GSEP. Therefore, the project conforms to this MUC guideline.

- Rare, Threatened, and Endangered Species, State and Federal: In all MUC areas, all State and federally listed species will be fully protected. In addition, actions which may jeopardize the continued existence of federally listed species will require consultation with the USFWS. As evaluated in PA/FEIS Section 4.17, *Impacts on Vegetation Resources*, no federally or State listed plants have been found to date that would be impacted by the Selected Alternative.
- Sensitive Plant Species: Identified sensitive plant species will be given protection in management decisions consistent with BLM's policy for sensitive species management (BLM Manual 6840). The objective of that policy is to conserve and/or recover listed species, and to initiate conservation measures to reduce or eliminate threats to BLM sensitive species to minimize the likelihood of and need for listing. As described in PA/FEIS Section 4.17, *Impacts on Vegetation Resources*, the gen-tie line of the Selected Alternative may impact land supporting California Native Plant Society-identified sensitive plants, including Harwood's milk-vetch, Harwood's eriastrum, Ribbed cryptantha, and Desert unicorn. With the exception of Harwood's eriastrum, these plants are not BLM sensitive species and, moreover, the implementation of mitigation measures, including BIO-1 through BIO-8, BIO-14, BIO-19, and BIO-24 would avoid or minimize impacts on these species.
- Unusual Plant Assemblages (UPAs): No UPAs were identified on the project site.
- Vegetation Manipulation: Manipulation of vegetation in Class M areas by mechanical control is allowed after consideration of possible impacts; aerial broadcasting is not permitted. Vegetation manipulation is defined in the CDCA Plan as removing noxious or poisonous plants from rangelands; increasing forage production; creating open areas within dense brush communities to favor certain wildlife species; or eliminating introduced plant species. None of these actions would be conducted as part of the Selected Alternative. Therefore, it would conform to the guidelines.

**Land Tenure Adjustment:** The Selected Alternative does not involve a change in land ownership.

**Minerals:** The project does not involve mineral development.

**Motorized Vehicle Access/Transportation:** Pursuant to the CDCA Plan guidelines in Class M areas, new roads may be developed upon approval of the authorized officer. There are no open OHV routes on the GSEP site. The linear facilities will cross one open OHV route but will not impede public access to the route. No area designations will be modified and no routes will be established or closed.

**Recreation:** The Selected Alternative will not involve the use of the project site for recreation.

**Waste Disposal:** The project will not involve the development of waste disposal sites

**Wildlife Species and Habitat:** Table 1 of the CDCA Plan includes a variety of guidelines associated with wildlife. These are addressed in PA/FEIS Section 4.21, *Impacts on Wildlife Resources*, as follows:

- Rare, Threatened, and Endangered Species, State and Federal: In all MUC areas, the CDCA Plan guidelines for wildlife require that State and federally listed species and their critical habitat be fully protected. Actions that may affect a federally listed species will require consultation with the USFWS. As discussed in Section 4.21, *Impacts on Wildlife Resources*, the desert tortoise is federally listed. As specified in the guidelines, BLM conducted formal consultation with the USFWS in accordance with Section 7 of the ESA. As a result of the consultation, Genesis is required to conform to all measures outlined in the Biological Opinion to minimize and mitigate impacts to desert tortoise. See Appendix 4, Biological Opinion, of this ROD.
- Sensitive Species: Identified species would be given protection in management decisions consistent with BLM's policy for sensitive species management (BLM Manual 6840). The objective of this policy is to conserve and/or recover listed species, and to initiate conservation measures to reduce or eliminate threats to BLM sensitive species to minimize the likelihood of and need for listing. Sensitive wildlife species evaluated in PA/FEIS Section 4.21, *Impacts on Wildlife Resources*, include desert tortoise, Mojave fringe-toed lizard, Couch's spadefoot toad, Western burrowing owl, golden eagle, migratory and special status birds, bats, American badger, desert kit fox, and Nelson's bighorn sheep.
- The Selected Alternative includes extensive mitigation to avoid and reduce adverse impacts to wildlife species. Introduction of native species is permitted in Class M areas, and habitat manipulation is allowed subject to NEPA compliance, as is done in the PA/FEIS for the GSEP. Therefore, the Selected Action conforms to these guidelines.
- The Selected Alternative does not involve the control of predators or pests. Therefore, this guideline is not applicable to these actions.

The project and the site location do not impact the following public land resources or uses: environmental justice; wild and scenic rivers; national scenic or historic trails, monuments, recreation areas, or conservation areas; cooperative management and protection areas; outstanding natural areas; forest reserves; back country byways; wetlands; livestock grazing; or wild horse and burros. Therefore, these guidelines are inapplicable to the land use plan decision being made in this ROD.

### **Required CDCA Plan Determinations**

As discussed in CDCA Plan Chapter 7, the BLM must make certain required determinations in amendments to the CDCA Plan. The required determinations and how they were made for the CDCA Plan Amendment for the GSEP are provided below.

**Required Determination:** Determine if the request has been properly submitted and if any law or regulation prohibits granting the requested amendment.

Genesis' request for a ROW lease/grant was properly submitted; the PA/FEIS was the mechanism for evaluating and disclosing environmental impacts associated with that application. No law or regulation prohibits granting the ROW or amending the CDCA Plan.

**Required Determination:** Determine if alternative locations within the CDCA are available which would meet Genesis' needs without requiring a change in the Plan's classification, or an amendment to any Plan element.

The CDCA Plan does not currently identify any sites as suitable for solar generating facilities. Therefore, there is no other location within the CDCA which could serve as an alternative location without requiring an amendment similar to the one required for the Selected Alternative (Dry Cooling) on the GSEP site. The Selected Alternative does not require a change in the Multiple-Use Class for any area within the CDCA.

**Required Determination:** Determine the environmental effects of granting and/or implementing Genesis' request.

The PA/FEIS evaluated the environmental effects of approving the CDCA Plan Amendment and granting the ROW for the GSEP.

**Required Determination:** Consider the economic and social impacts of granting and/or implementing Genesis' request.

The PA/FEIS (Section 4.13) evaluated the economic and social impacts of the Plan Amendment and the ROW lease/grant.

**Required Determination:** Provide opportunities for and consideration of public comment on the proposed amendment, including input from the public and from federal, State, and local government agencies.

A Notice of Intent (NOI) to amend the CDCA Plan was published in the Federal Register on November 23, 2009. The Draft EIS was available for a 90-day public review period beginning on April 9, 2010. The PA/FEIS was available for further comment and protest for 30 days beginning August 27, 2010.

**Required Determination:** Evaluate the effect of the proposed amendment on BLM management's desert-wide obligation to achieve and maintain a balance between resource use and resource protection.

The balance between resource use and resource protection is evaluated in the PA/FEIS. FLPMA Title VI, as addressed in the CDCA Plan, provides for the immediate and future protection and administration of the public lands in the California Desert within the framework of a program of multiple use and sustained yield, and maintenance of environmental quality. Multiple use includes

the use of renewable energy resources, and, through Title V of FLPMA, the BLM is authorized to grant ROWs for the generation and transmission of electric energy. The acceptability of public lands in the CDCA for this purpose is recognized through the CDCA Plan's approval of solar generating facilities within Multiple-Use Class M. The PA/FEIS identifies resources that may be adversely impacted by approval of the GSEP, evaluates alternative actions which may accomplish the purpose and need with a lesser degree of resource impacts, and identifies mitigation measures that, when implemented, would reduce the extent and magnitude of the impacts and provide a greater degree of resource protection.

### **CDCA Plan Decision Criteria**

The CDCA Plan, Energy Production and Utility Corridors Element (Chapter 3) defines specific decision criteria to be used by the BLM in evaluating applications. The consideration of these decision criteria for the GSEP is described below.

**Decision Criterion:** Minimize the number of separate rights-of-way by utilizing existing rights-of-way as a basis for planning corridors.

The GSEP helps minimize the number of separate ROWs by partially utilizing existing authorized infrastructure to interconnect to the proposed SCE Colorado River Substation. The 230 kV Blythe Energy Line, authorized in favor of FPL Group, a parent company of NextEra Energy Resources, was authorized within Corridor K of the CDCA Plan (1980, as amended) and was retro-fitted to allow for the conductors that would carry energy from the Genesis site to the Colorado River Substation, which would connect to the proposed Devers to Palo Verde II 500kV line, also sited in Corridor K of the CDCA Plan. Electrical transmission associated with the project will occur within these existing corridors or within the GSEP footprint.

**Decision Criterion:** Encourage joint-use of corridors for transmission lines, canals, pipelines, and cables.

The GSEP solar generating facilities will not be in designated corridors; however, ancillary facilities associated with the project will be. Placement of GSEP within existing designated corridors maximizes the joint-use of these corridors for electrical transmission.

**Decision Criterion:** Provide alternative corridors to be considered during processing of applications.

This criterion is not applicable to the GSEP. Placement of the proposed facility adjacent to existing corridors does not require designation of alternative corridors to support the project.

**Decision Criterion:** Avoid sensitive resources wherever possible.

The extent to which the GSEP has been located and designed to avoid sensitive resources is addressed throughout the PA/FEIS. The BLM and other federal regulations that restrict the



placement of proposed facilities, such as the presence of designated Wilderness Areas or Desert Wildlife Management Areas, were considered in the original siting process used by Genesis to identify potential sites for the project locations. The alternatives analysis considered whether the purpose and need of the project could be achieved with a different action alternative with a lesser effect on sensitive resources. That analysis indicated that the alternatives would likely result in generally similar or greater impacts (for resources impacted by cooling method) compared to the Selected Alternative.

**Decision Criterion:** Conform to local plans whenever possible.

The extent to which the GSEP conforms to local plans is addressed in Section 5 of the PA/FEIS. Some comments on the SA/DEIS suggested that compliance with local land use plans (including the Riverside County General Plan) is required. However, these plans pertain to non-federal land in the vicinity of the site and do not control federal actions on federal land. Accordingly, this decision criterion is not applicable to the GSEP.

The project was also found to have no inconsistencies with state or local plans during the Governor's Consistency Review (letter dated August 26, 2010).

**Decision Criterion:** Consider wilderness values and be consistent with final wilderness recommendations.

The GSEP site is not in a designated Wilderness Area or Wilderness Study Area.

**Decision Criterion:** Complete the delivery systems network.

This decision criterion is not applicable to the GSEP.

**Decision Criterion:** Consider ongoing projects for which decisions have been made.

Approval of the project would not affect any other projects for which decisions have been made.

**Decision Criterion:** Consider corridor networks which take into account power needs and alternative fuel resources.

This decision criterion is not applicable to the GSEP. The project does not involve the consideration of an addition to or modification of the corridor network.

### **3.5.2 Northern and Eastern Colorado Desert Coordinated Management Plan Amendment to the CDCA Plan**

Various federal regulations, Executive Orders, and the CDCA Plan require the BLM to designate routes of travel as Open, Limited, or Closed to vehicles and to assure that resources are properly managed in a multiple use context. In 2002, in an amendment to the CDCA Plan, the BLM designated many routes of travel in the Northern and Eastern Colorado Desert Coordinated Management Plan (NECO) amendment. The NECO amendment clarified, updated, and assigned designations (Open, Closed, or Limited) to all travel routes within the NECO amendment area. Additionally, since the project is located in MUC-M, OHV travel is allowed in open washes within the NECO planning area. The project site is within the NECO amendment area. There are no open routes or open washes within the project footprint; one linear facility crosses an open route but will not impact access to the route.

### **3.5.3 Utility Corridors**

The GSEP power generation facilities will not be in designated corridors; however, ancillary facilities associated with the project will be. See Section 1.3.3 of this ROD for details. Locating parts of the proposed project in these utility corridors is consistent with the designation of those corridors by the BLM as utility corridors.

## **3.6 Adequacy of NEPA Analysis**

The BLM used its Determination of NEPA Adequacy (DNA) worksheet to evaluate new information or changes to the Selected Action that occurred after publication of the PA/FEIS to determine whether or not a supplemental NEPA analysis was required. These changes include:

- increased acres in the ROW (unchanged number of disturbed acres, though);
- no longer a need for a secondary fire access road;
- no longer a need for noise balancing;
- reduced number of playa acres impacted; and
- reduced size of evaporation ponds.

Use of the DNA worksheet for this purpose is consistent with Section 5.1 of the agency's NEPA Handbook H-1790-1 (BLM 2008). Based on the review documented in the DNA (Appendix 2), the BLM concluded that the changes to the Selected Alternative conform to the CDCA Plan, and that the PA/FEIS fully covers the change in circumstances described above and as reflected in the BLM's Agency Preferred Alternative. Further, all of the changes described above and in the DNA will result in either no change in impacts or fewer adverse impacts. Accordingly, the BLM has determined that supplementation under NEPA is not required.

## **4. Alternatives**

The Selected Alternative was chosen from among a total of 26 alternatives considered by the BLM, five of which were carried forward, in addition to the Proposed Action, for more detailed review. The remaining 20 alternatives were considered but eliminated from detailed analysis.

### **4.1 Alternatives fully analyzed**

The Proposed Action and five alternatives were fully analyzed in the GSEP PA/FEIS. Each is described in detail in the PA/FEIS and summarized below.

#### **4.1.1 Proposed Action**

The Proposed Action includes a solar thermal facility and single-circuit 230 kV power transmission line (gen-tie) on BLM-administered public land in eastern Riverside County. The GSEP would consist of two adjacent, independent power block units of 125 MW nominal capacity each for a total nominal capacity of 250 MW commercial solar parabolic trough generating station and ancillary facilities. The project would include onsite facilities, such as an administration building, parking area, maintenance building, switchyard, bioremediation areas, wastewater treatment facilities, access and maintenance roads (either dirt, gravel or paved), perimeter fencing, central gas pipeline, a distribution line, fiber optics line, and water wells. Offsite project facilities would include access to the site, a distribution line, gas pipeline, and fiber optics lines. The single circuit 230 kV gen-tie line would connect into the power grid at the planned Southern California Edison Colorado River Substation approximately 11 miles southeast of the GSEP. The total permanent footprint of the proposed on-site facilities would be fenced and, including rerouting drainage channels, would be approximately 1,726 acres. The proposed off-site linear facilities would be approximately 224 acres. The total estimated ROW would be approximately 1,950 acres.

The BLM did not select this alternative for approval because it would utilize a wet cooling method for facility operations, and therefore require appreciable water use in the desert where water availability is limited.

#### **4.1.2 Dry Cooling Alternative (Selected Alternative)**

The Dry Cooling Alternative is a 250-MW solar facility like the Proposed Action and also would require a CDCA Plan amendment. Both of the proposed solar fields would remain at their proposed locations. Direct dry cooling will cool steam from the steam turbine exhaust directly using an air-cooled condenser (ACC) to reject heat to the atmosphere, condensing the steam inside the radiator and reduce water consumption by 87 percent compared to the Proposed

Action. Approximately 18 ACC fans will be required for cooling each 125 MW power block when the ambient temperature is above 50 degrees Fahrenheit. The 18 ACC fans described in the GSEP cooling study will be approximately 279 feet long, 127 feet wide, and 98 feet tall. Based on the ACC preliminary designs for nearby solar thermal projects in similar ambient temperatures, an additional 11,690 square feet may be required for siting of the fans which will be up to 120 feet tall.

In addition to the ACC fans, a small wet surface air cooler (WSAC) will be used when needed to provide auxiliary cooling during extremely hot days. Water for WSAC cooling make-up, process water make-up, and other industrial uses such as mirror washing will be supplied from on-site groundwater wells, which will also be used to supply water for employee use (e.g., drinking, showers, sinks, and toilets). A package water treatment system will be used to treat the water to meet potable standards. A sanitary septic system and on-site leach field will be used to dispose sanitary wastewater.

Similar to the Proposed Action, the Dry Cooling Alternative will transmit power to the grid through the Colorado River Substation. It will require infrastructure including groundwater wells, a transmission line, and road access. The required infrastructure and transmission line for the Dry Cooling Alternative will follow the routes defined for the Proposed Action.

Under this alternative, the BLM will issue a ROW lease/grant for the appropriate acreage and amend the CDCA Plan to identify the GSEP site as suitable for solar development under the Plan.

#### **4.1.3 Reduced Acreage Alternative**

The Reduced Acreage Alternative would retain only Unit 1 of the Proposed Action, with the ability to generate 125 MW. Unit 2 (125 MW) would not be constructed. This alternative would require a CDCA Plan amendment. This alternative would be located entirely within Genesis' ROW lease/grant application area as defined by Genesis. The Reduced Acreage 125-MW Alternative would occupy approximately 950 acres of land. This alternative would retain the Unit 1 solar field and would require relocation of the switchyard and elimination of the eastern evaporation pond area. The gas pipeline would be approximately one mile longer than for the Proposed Action. This alternative is analyzed for two major reasons:

- It would be approximately half the size of the Proposed Action, thereby reducing the impacts for many resources and issues; and
- It would eliminate the approximately 900 acre eastern solar field which is located on a sand transport corridor and, therefore, would reduce impacts to Mojave fringe-toed lizard habitat.

The BLM did not select the Reduced Acreage Alternative for approval because the project would produce 50% less electricity than either the Proposed Action or Dry Cooling Alternative. Although this alternative would reduce impacts, it does not represent the best balance between

uses of the public lands and conservation of resources especially when considered with the Congressional, Presidential, and Departmental directives supporting renewable energy development on public lands (PA/FEIS Section 1.1) and the use of applicable mitigation to offset impacts.

#### **4.1.4 No Action - Alternative A**

Under this alternative, the ROW application would be denied, and the ROW lease/grant would not be authorized. The CDCA Plan (1980, as amended) would not be amended.

#### **4.1.5 CDCA Plan Amendment/No Project - Alternative B**

This alternative was called the “Land Use Plan Amendment Alternative – No Action Alternative B” in the PA/FEIS. Under this alternative, the ROW would not be granted. The CDCA Plan would be amended to identify the application area as unsuitable for any type of solar energy development.

#### **4.1.6 CDCA Plan Amendment/No Project - Alternative C**

This alternative was called the “Land Use Plan Amendment Alternative – No Action Alternative C” in the PA/FEIS. Under this alternative, the ROW would not be granted. The CDCA Plan would be amended to identify the application area as suitable for any type of solar energy development.

## **4.2 Alternatives not Fully Analyzed**

This section describes potential alternatives to the proposed GSEP that were evaluated but eliminated from detailed analysis. The alternatives summarized below are discussed in detail in Table 2-6 of the PA/FEIS.

### **4.2.1 Site Alternatives**

The following alternative sites were considered in the PA/FEIS but eliminated from detailed analysis: McCoy, Desert Center I, Mule Mountain, Black Hill, Western ROW and Private Land. These alternatives were eliminated from detailed analysis for one of more of the following reasons:

- Substantially similar or greater effects compared to alternatives analyzed in detail
- Would not meet the purpose and need for the project
- Gaining site control of many privately owned parcels is too remote and speculative
- Infeasible due to distance to transmission interconnection.

The BLM considers the private lands alternative as essentially equivalent to the No Action Alternative for the purposes of the NEPA analysis, and an unreasonable alternative to the BLM for a number of reasons as explained in the PA/FEIS. Generally, use of multiple private parcels would have presented too much uncertainty in the company's ability to obtain all the necessary leases, permits and approvals. Furthermore the BLM's NEPA Handbook (H 1790-1) states that "an action alternative may be eliminated from detailed analysis if it is ineffective (would not meet the purpose and need)." The Handbook further states:

*For most actions, we recommend that the purpose and need statement be constructed to reflect the discretion available to the BLM, consistent with existing decisions and statutory and regulatory requirements; thus, alternatives not within BLM jurisdiction would not be "reasonable".*

#### **4.2.2 Alternative Technologies/Conservation**

Several alternative solar generation technologies were evaluated as potential alternatives to the GSEP (which would use solar trough technology) including Stirling energy systems, solar power tower, linear Fresnel, distributed photovoltaic, commercial photovoltaic and reclaimed water. Alternative non-solar technologies include wind, geothermal, biomass, tidal, and wave. Alternative methods of energy production considered include coal, natural gas and nuclear energy. Generally, alternative technologies/methods were eliminated from further analysis because they:

- Have substantially similar or greater effects compared to alternatives analyzed in detail
- Are infeasible due to lack of available requirements/resources near the project area (reclaimed water, geothermal, wave, etc.)
- Are not within the area of expertise of Genesis, and therefore would not likely be technically or economically feasible for Genesis to implement
- Would be unable to produce an equivalent amount of energy (biomass) compared to GSEP or
- Are illegal in California (nuclear)

### **4.3 Environmentally Preferred Alternative**

The environmentally preferred alternative would be either the No Action – Alternative A or the CDCA Plan Amendment - No Project Alternative B. Neither of these alternatives would allow development of the energy generating project and neither would have impacts on the ground. However neither of these alternatives would allow the development of renewable energy, which is a national priority.

The Dry Cooling Alternative is the environmentally preferred alternative that still allows the development of renewable energy. It will reduce impacts to water resources and allow the fully requested 250 MW of energy development. The Dry Cooling Alternative is the Selected Alternative.

## **5. Agency and Public Involvement**

### **5.1 Scoping**

The Notice of Intent for the GSEP EIS was published in the *Federal Register* on November 23, 2009, initiating a 30-day scoping period. The BLM also jointly held a public scoping meeting with the CEC on December 11, 2009, in Palm Desert, California. The public meetings were noticed in the Federal Register NOI, the Desert Sun newspaper on November 24, 2009 and in the CEC's "Notice of Informational Hearing and Site Visit on January 11, 2010. Approximately 24 scoping comment letters were received, in addition to comments received at the scoping meeting. Many of the comments pertained to purpose and need, air, water, wildlife, vegetation, cultural, and visual resources, land use, public health and safety, alternatives, and cumulative impacts. Scoping comments were considered in the DEIS and are contained in the NextEra Ford Dry Lake Solar Power Plant Scoping Report (January 2010).

### **5.2 Draft EIS Public Comment Period**

The BLM and CEC jointly prepared the SA/DEIS for the proposed project incorporating information received during scoping. The SA/DEIS review period was initiated by publication of the Notice of Availability (NOA) in the Federal Register on April 9, 2010 (75 Fed. Reg. 68, pp. 18204-18205). Interested parties identified in the project mailing list were also notified. The comment period ended July 8, 2010.

The BLM received 14 comment letters on the SA/DEIS. Issues included but were not limited to data adequacy, purpose and need, range of alternatives, biological impacts, cultural impacts, climate change and greenhouse gases, water rights, and water quality. All public comments were carefully analyzed and agency responses were included in Section 5.4 of the PA/FEIS. In addition, one letter that was sent jointly from the Defenders of Wildlife, National Resources Defense Council, and The Wilderness Society was received after the close of the 90-day review period due to the fact that it was mailed to the wrong address. Due to receipt after the close of the public review period, the response to this comment letter was inadvertently omitted from the PA/FEIS; however, this letter did not raise any substantive issues not already raised by the other comment letters. The BLM's responses to this letter are included in the ROD (Appendix 1).

### **5.3 Final EIS Public Comment Period**

The EPA Notice of Availability of the PA/FEIS was published in the Federal Register on August 27, 2010 (75 Fed. Reg. 21570). As part of the environmental review process, the BLM provided an additional opportunity for agencies and the members of the public to review and comment on the PA/FEIS. This additional comment period lasted 30 days, from August 27 to September 27,

2010. During this additional review period, 10 comment letters were received. The BLM's responses to these comments are provided in Appendix 1, Responses to Comments on the PA/FEIS. The BLM reviewed the comments on the PA/FEIS and determined that they did not raise any significant new circumstances or information relevant to the analysis in the PA/FEIS. Therefore, no changes to the proposed decision were determined to be warranted.

## **5.4 Protest Period**

The EPA Notice of Availability of the PA/FEIS was issued on August 27, 2010. Release of the PA/FEIS initiated the 30-day protest period, which closed on September 27, 2010. During that period, any person who participated in the planning process and believed they would be adversely affected by the CDCA Plan Amendment had the opportunity to protest the proposed amendment to the Director of the BLM. Detailed information on protests may be found at: [http://www.blm.gov/wo/st/en/prog/planning/protest\\_resolution.html](http://www.blm.gov/wo/st/en/prog/planning/protest_resolution.html).

Three protests were received and have been resolved by the Director or, as noted below, have been withdrawn by the protesting party. In general, protesters did not support the proposed plan amendment and raised the following issues, among others: NEPA adequacy, range of alternatives, impacts to rare plants and Couch's spadefoot toad, appropriate use of Class "M" lands, cultural resources impacts, and CDCA Plan consistency. At the request of various interested organizations, the BLM met with these groups in an effort to resolve the protest issues in accordance with its policy (BLM Land Use Planning Handbook, Appendix E, p. 6).

As a result of these meetings, three organizations (Defenders of Wildlife, Natural Resources Defense Council and Wilderness Society) that filed a joint protest agreed with Genesis to certain project conditions which were presented to the BLM (Appendix 3, Protest Negotiation Summary) for inclusion in the BLM Selected Alternative and as modifications to the Plan of the Development. These three groups withdrew their protests. Sierra Club, who was a fourth party to the jointly filed protest above, withdrew its protest following participation in the discussions described above. These terms and conditions further describe and refine the mitigation measures identified in the PA/FEIS and require the installation of a security gate and/or guard at the south end of the access road to the Genesis Solar Energy Project site to prevent unauthorized access. According to the agreement between and among the project applicant and the organizations, these and other agreed-upon terms have been incorporated into a modified POD for the project. The BLM has analyzed these revised terms and conditions and has determined that they do not require BLM to supplement the PA/FEIS prior to issuance of the ROD.

The BLM has determined that the revised terms and conditions fall within the alternatives analyzed in the PA/FEIS, has accepted these agreed-upon terms as part of the amended POD, and has incorporated into and will administer these terms as part of the ROW lease/grant in accordance with 43 CFR 2805.12(i)(5), 2807.16, and 2807.17. The agreed-upon terms are not subject to amendment without the agreement of Genesis and the organizations and only if approved by the BLM. The ROW would be amended only if required as per 43 CFR 2807.20.



## **5.5 Summary of Consultation with Other Agencies and Entities**

### **5.5.1 Governor's Office of Planning and Research**

The proposed CDCA Plan Amendment was reviewed by the Governor's Office of Planning and Research following the issuance of the PA/FEIS. No inconsistencies were found with State and local plans or regulations as stated in a letter dated August 26, 2010, which is available as part of the project record.

### **5.5.2 United States Fish and Wildlife Service**

Pursuant to the Endangered Species Act Section 7 consultation requirements (16 U.S.C. Section 1531 et seq.), the USFWS issued a BO for the project, which is provided in Appendix 4, Biological Opinion, of this ROD.

### **5.5.3 National Historic Preservation Act Consultation**

Section 106 of the National Historic Preservation Act of 1966 (NHPA) (16 U.S.C. Section 470) requires federal agencies to take into account the effects of their undertakings on historic properties. Adverse effects that the GSEP may have on cultural resources will be resolved through compliance with the terms of the Programmatic Agreement (PA) prepared by BLM in consultation with the Advisory Council on Historic Preservation, the State Historic Preservation Officer (SHPO), Indian Tribes, and other interested parties, consistent with 36 CFR 800.14(b). The PA governs the conclusion of the identification and evaluation of historic properties eligible for the NRHP, as well as the resolution of any adverse effects that may result from the Selected Action. The BLM has already consulted extensively with potentially affected Indian Tribes regarding potential impacts of the proposed action and alternatives. The PA, executed on October 7, 2010, is attached to this ROD as Appendix 5.

### **5.5.4 Tribal Consultation**

Tribal consultation occurs on a government-to-government level in accordance with several authorities, such as NEPA; the NHPA; the American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996), as amended; and Executive Order 13007 (May 24, 1996), concerning Indian Sacred Sites. For the GSEP, the BLM conducted government-to-government consultation with a number of Tribal governments. The consultation and discussions revealed concerns about the importance and sensitivity of cultural resources on and near the GSEP site, concerns about cumulative effects to cultural resources, and, further, that they attach significance to the broader cultural landscape. As a result of the Native American consultation, important cultural resources were identified in the project area and avoided in the Selected Alternative.

## **5.5.5 Department of Energy**

DOE provided language for the EIS that would allow DOE to use the PA/FEIS to meet its NEPA requirements for purposes of making a funding decision pursuant to DOE programs.

## **5.5.6 United States Army Corps of Engineers**

The U.S. Army Corps of Engineers (USACE) has jurisdiction to protect water quality and wetland resources under Section 404 of the Clean Water Act. Under this authority, USACE reviews proposed projects to determine whether they may impact such resources, and/or be subject to a Section 404 permit. Throughout the Draft SA/EIS process, the CEC, BLM, and Genesis provided information to the USACE to assist the agency in making a determination regarding its jurisdiction and need for a Section 404 permit. The USACE rendered a final opinion on May 9, 2010 concluding that the GSEP does not affect waters of the U.S. and thus, does not require such a permit.

## **5.5.7 United States Environmental Protection Agency**

EPA provided comments on the GSEP during the scoping process, on the SA/DEIS and on PA/FEIS. EPA's SA/DEIS comments (July 12, 2010) are in Appendix H of the PA/FEIS. EPA's comments on the PA/FEIS (Sept. 27, 2010) are on the BLM website at <http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/palmsprings/genesis.Par.83856.File.dat/Genesis%20FEIS%20Comments.pdf> These comments enhanced the BLM's consideration of many environmental issues relevant to this project.

## **5.5.8 National Park Service**

Joshua Tree National Park provided comments on the GSEP SA/DEIS in a letter dated July 8, 2010 (Appendix H of the PA/FEIS). These comments aided BLM's understanding of several resource issues relevant to this project.

## **5.5.9 State, Regional and Local Agency/Group Coordination**

In addition to coordinating with the CEC to prepare the joint SA/DEIS as described above, the BLM also coordinated with the California Department of Fish and Game (CDFG), Mojave Desert Air Pollution Management District, and the County of Riverside.

### **California Department of Fish and Game**

CDFG has the authority to protect water resources of the State through regulation of modifications to streambeds, under Section 1602 of the California Fish and Game Code. The CEC, BLM, and Genesis have provided information to CDFG to assist in its determination of the impacts of the GSEP to streambeds, and identification of permit and mitigation requirements.

The CDFG has asserted its jurisdiction over 69 acres of streambeds for direct impacts to jurisdictional waters of the State, and 21 acres for indirect impacts, within and adjacent to the project site. Genesis filed a Streambed Alteration Agreement with CDFG on December 31, 2009 and supplemented it on January 13, 2010. The requirements of the Streambed Alteration Agreement are included as a Mitigation Measure (Appendix 6, ECCMP). CDFG also has the authority to regulate potential impacts to species that are protected under the California Endangered Species Act (CESA). On December 31, 2009, Genesis filed an application for incidental take of the desert tortoise under CESA Section 2081(b). The requirements of the Incidental Take Permit are also included as a Mitigation Measure.

### **Mojave Desert Air Pollution Management District**

The Mojave Desert Air Pollution Management District (MDAPMD) has authority to implement within its jurisdiction the requirements of the New Source Review (NSR) permitting program that was adopted as part of the 1977 Clean Air Act Amendments. NSR is a preconstruction permitting program that ensures that air quality is not significantly degraded from the addition of new and modified facilities and assures people that large new or modified industrial sources of air pollutants will be as clean as possible. Pursuant to this authority, the MDAPMD reviewed the proposed GSEP, evaluated worst-case or maximum air quality impacts, and established control technology requirements and related air quality permit conditions. The MDAPMD issued a Final Determination of Compliance for the GSEP on July 20, 2010.

### **Riverside County Fire Department**

The Riverside County Fire Department commented on the PA/FEIS which enhanced the BLM's consideration of emergency and public service responders and response times.

### **Metropolitan Water District of Southern California**

The District, a public agency and wholesale water retailer, provided comments on the SA/DEIS and the PA/FEIS for the GSEP. These comments enhanced the BLM's consideration of issues related to water resources, including groundwater.

### **Groups and Individuals**

The following non-governmental organizations and individuals also provided comments:

- Center for Biological Diversity
- Sierra Club
- California Unions for Reliable Energy
- Defenders of Wildlife
- Western Watershed Project
- San Manuel Band of Mission Indians
- La Cuna de Aztlan Sacred Sites Protection Circle
- NextEra Energy Resources, LLC; SolarReserve, LLC
- Genesis Solar
- Kaiser Eagle Mountain, LLC; Mine Reclamation, LLC
- Colorado River Board of California
- Scott A. Galati, Galati Blek LLP on the behalf of Genesis
- Colorado River Board of California
- Brendan Hughes, Individual
- Jean Public, Individual

## 6. Errata

The purpose of these errata is to correct factual inaccuracies or typographical errors in the PA/FEIS for the GSEP. The GSEP POD will govern in the event of any factual discrepancies between it and the PA/FEIS. To the extent that the clarifications below affect the project description, the POD will incorporate these clarifications.

- The top of page ES-2 should read: “The CEC analyses regarding the GSEP BSPP in the SA/DEIS were prepared in accordance with the requirements of CEQA.”
- Page ES-3 should read: “Title XVII of the Energy Policy Act of 2005 (EPAAct), P.L. 109-58 as amended by section 406 of the American Recovery and Reinvestment Act of 2009, P.L. 111-5 (the “Recovery Act”), established a federal loan guarantee program for eligible energy projects that employ innovative technologies.”
- Page ES-3 incorrectly references Southern California Edison (SCE). The correct reference is Pacific Gas & Electric (PG&E).
- Page ES-5 under “Distribution Line,” should read: “Construction power would be provided by the local distribution system and routed to the site along wood poles within the linear facilities ROW 230 kV ROW (see Figure 2-8).”
- The wildlife resources text in Table ES-2, *Summary of Impacts by Alternative*, should read: “Operations: ~~disruption of migratory patterns~~; death or injury to individuals from striking powerlines, mirrors, arrays, poles or being struck by vehicles; increased predation.”
- Table ES-2, *Summary of Impacts by Alternative*, identified 196.5 acres of sand dune habitat lost. This number has changed due to a change in the footprint of the Selected Alternative. The GSEP would result in a permanent loss of 7.5 acres of sand dune habitat and 38 acres of sand drift over playa.
- Page 1-2 should read: “Title XVII of the Energy Policy Act of 2005 (EPAAct), P.L. 109-58 as amended by section 406 of the American Recovery and Reinvestment Act of 2009, P.L. 111-5 (the “Recovery Act”), established a federal loan guarantee program for eligible energy projects that employ innovative technologies.”
- Page 1-3 should read: “The GSEP would consist of the onsite solar generating fields and ancillary facilities (approximately 1,800 acres), and offsite ancillary facilities including a 230 kV transmission line, access road, gas pipeline, distribution line, telecommunication lines, and drainage features (approximately 90 acres).”
- Page 2-3 should read: “The applicant proposes to construct, operate, maintain and decommission the GSEP or Proposed Action which includes a 250 MW solar generating facility, 230-kV transmission line (gen-tie) and ancillary facilities (access road and natural gas pipeline, distribution line and telecommunication lines) on BLM administered land (see Figure 2-1).”

- Page 2-4 should read: “The Proposed Action is a ROW lease/grant and LUP Amendment describing, approximately, the following BLM-administered land:”
- Page 2-6 of the PA/FEIS should read that the trough collector loop length is 1,000 feet.
- Page 2-10 should read: “Construction power would be provided by the local distribution system and routed to the site along wood poles within the linear facilities ROW 230-kV ROW (see Figure 2-8).”
- Page 3.18-2 states “Approximately 7.5 acres of stabilized and partially stabilized dunes occurs within the linear Disturbance Area . . . The PA/FEIS identified 3,904 acres of stabilized and partially stabilized desert dunes as having been surveyed, with a total surveyed area of 25,235 acres in Table 3.18-1. This is incorrect. The correct number of acres surveyed is 3,911 and 25,242 acres respectively.
- Page 3.18-4 identified 91 acres of waters of the state within the GSEP Disturbance Area. This is incorrect. There are 90 acres of waters of the state in the GSEP disturbance area.
- Page 4.4-12 should read: “The ground disturbance that would occur from the GSEP BSPP would result in unavoidable adverse impacts on cultural resources through damage and displacement of artifacts, loss of integrity of cultural resources, and changes in the settings of cultural resources inconsistent with their historic or traditional cultural values.”
- Page 4.18-15 should read: “Visual effects from the proposed transmission lines would be likely to remain, however, since it seems likely that, once in use, such lines would remain in use regardless of whether the energy they transfer is generated by the GSEP BSPP or another project.”
- Sections 4.15.3 and 4.15.4 were mistakenly included and should be deleted; the following sections, numbered 4.15.5, 4.15.6, and 4.15.7, should be re-numbered appropriately.
- Page 5.16 references Arco, Gunsight, and Cipriano Soil Series. This is incorrect; those soils do not occur in the project area and the reference should be deleted.
- Chapter 4 and Appendix G refer to California Energy Commission Conditions of Certification (COCs) as set forth in the Presiding Members’ Proposed Decision. However, because the COCs may change in the final license or as a result of amendments to the license, the PA/FEIS should reference the COCs as set forth in the license, as amended.
- The response to comment #6-061 (page 5-20) states that the Transition Cluster Phase II Interconnection Study Report (Phase II study) was “forthcoming” when, in fact, the Phase II study was completed in July 2010, prior to release of the PA/FEIS. The response also states that “any actions as a result of the studies are not considered connected actions.” This too is inaccurate. As stated on page 2-11, “Transmission reliability impacts and appropriate mitigation have now been fully identified through the Phase II Interconnection study of projects in the Transition Cluster, including the Genesis project.” The analysis in the Phase II study identifies a number of actions necessary to address downstream transmission impacts, and on pages 2-10 and 11, the BLM identifies these actions as “connected actions,” as required by NEPA.

- The PA/FEIS states that the discharges to the evaporation ponds would be reduced by 50% if the Dry Cooling Alternative were chosen. This is incorrect and was a typographical error. The actual decrease would be approximately 84%. This clarification is included to show that selection of the Dry Cooling Alternative will have even lesser impact to water resources and is included to correct a misstatement in the PA/FEIS.
- The PA/FEIS mistakenly references Condition of Certification VIS-3 on page 4.18-19. Condition of Certification VIS-3 was deleted by the CEC in its Final Decision (see GSEP Commission Decision, page E-28) following negotiations with the applicant, as is correctly noted in the PA/FEIS Appendix G, Conditions of Certification. This change does not affect the overall analysis of the project.
- BLM-VIS-1 text on page 4.18-19 of the PA/FEIS should read: “The project owner shall paint power block structures and other vertical construction colors sympathetic to the surrounding desert environment, such as covert green. The appropriate color shall be evaluated and determined in the field using a BLM Color Chart. The backs of solar troughs shall also be color treated to minimize color contrasts to the extent feasible.”
- PA/FEIS Section 4.4.4, *Summary of Mitigation Measures*, included a reference to prehistoric quarries in its discussion of mitigation measure BLM-CUL-1. This was incorrect, as there are no prehistoric quarries on-site. This information was erroneously carried over from another project. As corrected BLM-CUL-1 on page 4.4-11 of the PA/FEIS should read as follows: “The Applicant shall contribute to a program to document ~~three~~ two cultural landscapes described in Chapter 3.4 that will, in part, be impacted by the GSEP. These are: (1) a Prehistoric Trails Network Archaeological Landscape (PTNAL), and (2) a Desert Training Center California-Arizona Maneuver Area Historic Archaeological Landscape (DTCHAL), ~~and (3) a Prehistoric Quarries Archaeological District (PQAD).~~ The Applicant will follow the documentation program by contributing to the preparation of National Register of Historic Places (NRHP) nominations for the PTNAL and DTCHAL if the BLM determines, after reviewing the documentation, that they are eligible for the NRHP.”

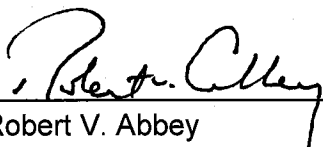
## 7. Final Agency Action

### 7.1 Land Use Plan Amendment

It is the decision of the Bureau of Land Management to approve the Proposed Plan Amendment to the California Desert Conservation Area Land Use Management Plan (CDCA Plan, 1980, as amended) to allow a solar energy generation facility on the Genesis Solar Energy Project site. The Proposed Plan Amendment and related Environmental Impact Statement (EIS) was published on August 30, 2010 in the Federal Register (75 Fed. Reg. 52966). I have resolved all protests on the Proposed Plan Amendment and, in accordance with BLM regulations, 43 CFR 1610.5-2, my decision on the protests is the final decision of the Department of the Interior.

Based on the recommendation of the State Director, California, I hereby approve the Proposed Plan Amendment. This approval is effective on the date this Record of Decision is signed.

Approved by:

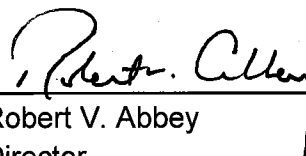
  
\_\_\_\_\_  
Robert V. Abbey  
Director  
Bureau of Land Management

11-3-10  
Date

### 7.2 ROW Authorization

It is my decision to approve a solar energy right-of-way lease/grant to Genesis Solar, LLC, subject to the terms, conditions, stipulations, Plan of Development, and environmental protection measures developed by the Department of the Interior and reflected in this Record of Decision. This decision is effective on the date this Record of Decision is signed.

Approved by:

  
\_\_\_\_\_  
Robert V. Abbey  
Director  
Bureau of Land Management

11-3-10  
Date

### 7.3 Secretarial Approval

I hereby approve these decisions. My approval of these decisions constitutes the final decision of the Department of the Interior and, in accordance with the regulations at 43 CFR 4.410(a)(3), is not subject to appeal under Departmental regulations at 43 CFR Part 4. Any challenge to these decisions, including the BLM Authorized Officer's issuance of the right-of-way as approved by this decision, must be brought in federal district court.

Approved by:



Ken Salazar  
Secretary  
U.S. Department of the Interior

NOV 04 2010

Date





# United States Department of the Interior



## BUREAU OF LAND MANAGEMENT

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In Reply Refer To:  
2200 (300)

### Memorandum

To: Office of the Deputy Secretary

Through: Robert V. Abbey  
Director

From: James W. Abbott  
Acting State Director

Subject: Recommendation for final Departmental approval of the right-of-way application for a solar energy generation facility in California from NextEra Energy Resources for the Genesis Solar Energy Project.

The attached file contains the decision document allowing the authorized officer to offer the right-of-way grant associated with an application filed by NextEra Energy Resources for the development of a solar energy generating facility in Riverside County, California.

The Bureau of Land Management is recommending approval of the decision as the final decision of the Department. The applicant has indicated they are working toward qualifying this project for available renewable energy stimulus funding and in order to qualify for such funding the decision on the project is time sensitive.

The land use plan amendment associated with siting of the renewable energy project within the California Desert District has been approved, allowing for the right-of-way decision to be issued. The file also contains for signature a Federal Register Notice of Availability associated with approval of the project and land use plan amendment.

The file contains supporting materials on the project including maps, a briefing paper, and a copy of the right-of-way grant to be issued.

Attachments