

# PLAN OF DEVELOPMENT

## Easley Renewable Energy Project

*Prepared for*



**IP Easley I, LLC,  
IP Easley II, LLC, &  
IP Easley III, LLC**

subsidiaries of Intersect Power, LLC

*Submitted by*



**July 2024**

## CONTENTS

<b>1. Project Overview .....</b>	<b>1</b>
1.1. Introduction .....	1
1.2. Background on BLM Filings Related to the Easley Renewable Energy Project .....	1
1.3. Proponent’s Purpose and Need for the Project.....	2
1.4. Other Federal, State, and Local Agency Permit Requirements.....	4
1.5. Financial and Technical Capability of the Proponent.....	5
<b>2. Project Description .....</b>	<b>6</b>
2.1. Project Location and Surrounding Land Uses .....	6
2.2. Project Components.....	6
2.2.1. Summary of All Project Components.....	6
2.2.2. Photovoltaic Modules and Support Structures .....	8
2.3. Inverters, Transformers, and Electrical Collection System .....	9
2.4. Project Substation Yard.....	10
2.5. 500 kV Gen-tie Transmission Line .....	10
2.6. Operations and Maintenance Facilities .....	11
2.7. SCADA and Telecommunications Facilities .....	11
2.8. Battery Energy Storage System.....	12
2.9. Meteorological Data Collection System .....	12
2.10. Access Roads .....	13
2.10.1. Main Access .....	13
2.10.2. Internal Roadway System .....	13
2.11. Solar Facility Site Security, Fencing and Lighting .....	13
2.11.1. Controlled Access.....	13
2.11.2. Fencing.....	13
2.11.3. Lighting .....	14
2.11.4. Other Security Measures .....	14
<b>3. Construction of Facilities.....</b>	<b>15</b>
3.1. Construction Schedule and Workforce .....	15
3.2. Ground Disturbance .....	15
3.3. Pre-Construction Activities .....	16
3.3.1. Pre-Construction Surveys .....	16
3.3.2. Geotechnical Evaluation .....	16
3.3.3. Construction Crew Training .....	16
3.3.4. Surveying, Staking, and Flagging.....	17
3.3.5. Desert Tortoise Fence Installation .....	17
3.3.6. Biological Clearance Surveys .....	17
3.3.7. Establishment of Construction Staging Area .....	17
3.4. Construction Phase 1: Site Preparation .....	17
3.4.1. Construction-Related Grading and Vegetation Management.....	17
3.4.2. Erosion and Sediment Control and Pollution Prevention.....	18
3.5. Construction Phase 2: Photovoltaic Panel System.....	19

3.6.	Construction Phase 3: Inverters, Transformers, Substation and Electrical Collector System, and BESS .....	19
3.7.	500 kV Gen-tie Line Construction .....	20
3.7.1.	Helicopter Use .....	21
3.8.	Construction Access, Equipment and Traffic .....	21
3.9.	Post-Construction Cleanup .....	22
3.10.	Construction Site Stabilization, Restoration and Wildlife Monitoring .....	22
3.11.	Construction Water Requirements .....	22
3.12.	Waste Generation .....	22
3.13.	Fire Safety During Construction .....	23
<b>4.</b>	<b>Operation and Maintenance of the Facility .....</b>	<b>24</b>
4.1.	Site Maintenance .....	24
4.2.	Operation and Maintenance Workforce .....	25
4.3.	Drone Use .....	25
4.4.	O&M Water Requirements .....	25
4.5.	Fire Safety During Operation .....	25
4.6.	Wildlife-Friendly Fencing .....	26
<b>5.</b>	<b>Termination and Rehabilitation .....</b>	<b>27</b>
<b>6.</b>	<b>Environmental Considerations .....</b>	<b>28</b>
6.1.	Environmental Resource Surveys & Studies .....	28
6.1.1.	Biological Resources .....	28
6.1.2.	Cultural and Paleontological Resources .....	28
6.1.3.	Additional Studies .....	29
6.2.	Summary of Desktop Habitat Assessment .....	29
6.2.1.	Vegetation Communities .....	29
6.2.2.	Special Status Species .....	30
6.3.	Conformance with Land Use Plans and DRECP CMAs .....	30
6.4.	Other ROW Holders .....	30
6.5.	Spill Prevention and Contingency Plan .....	31
6.6.	Pesticide Use Proposal .....	31
<b>7.</b>	<b>Applicant Proposed Measures and Best Management Practices .....</b>	<b>33</b>
<b>8.</b>	<b>Alternatives Considered by the Applicant .....</b>	<b>34</b>
8.1.	General Approach .....	34
8.2.	BLM Sites Eliminated from Further Consideration .....	34
8.3.	Potential Alternatives to be Carried Forward .....	34
<b>9.</b>	<b>Reporting, Plan &amp; Other Information Requirements .....</b>	<b>35</b>

## LIST OF TABLES

Table 1.	Other Permits and Approvals for the Easley Renewable Energy Project .....	4
Table 2.	Disturbance Estimates for Easley Renewable Energy Project .....	15
Table 3.	Estimated Cut and Fill Volumes (Pending Final Engineering) .....	18

Table 4.	Easley Renewable Energy Project – Biological Resources Survey Approach .....	28
Table 5.	Herbicides Proposed for Easley Renewable Energy Project .....	31
Table 6.	Maximum and Prescribed Rates of Herbicide Application in the Project Area .....	32
Table 7.	Timing of Submittal for Required Reports, Plans, and Other Information .....	35
Table 8.	Field Survey Status .....	36

## APPENDICES

### Appendix A      Figures and Maps

Figure 1 – Project Vicinity

Figure 2 – Project Area

Figure 3 – Project Components on BLM-administered Land

Figure 4 – East Riverside Solar Projects and DRECP Context

Figure 5 – Typical Single Axis Tracker with Portrait Mode Orientation

Figure 6 – Typical Tracker Structure

Figure 7 – Typical Inverter Skid Layout

Figure 8 – Typical 34.5 kV Medium Voltage Line Structures

Figure 9 – Typical 500 kV Gen-Tie Line Structures

Figure 10 – Typical O&M Building Floor Plan

Figure 11 – Typical BESS Enclosure

### Appendix B      Right-of-Way Legal Description

### Appendix C      Applicability of DRECP Conservation and Management Actions

### Appendix D      Right-of-Way and Utility Corridor Conflict Analysis

### Appendix E      Cultural Resources (Confidential, cover page only)

### Appendix F      Paleontological Resources Technical Report (Confidential, cover page only)

### Appendix G      Biological Resources Technical Report

### Appendix H      Jurisdictional Waters Report

### Appendix I      Desert Tortoise Protection and Translocation Plan

### Appendix J      Raven Management Plan

### Appendix K      Wildlife Protection and Translocation Plan

### Appendix L      Vegetation Resources Management Plan

### Appendix M      Bird and Bat Conservation Strategy

### Appendix N      Integrated Weed Management Plan

### Appendix O      Nesting Bird Management Plan

### Appendix P      Water Supply Assessment

### Appendix Q      Visual Analysis Report and Glare Assessment

### Appendix R      Transportation Impact Analysis

### Appendix S      Air Quality Emissions Report

### Appendix T      Health, Safety and Noise Plan

### Appendix U      Dust Control Plan

### Appendix V      Fire Management and Prevention Plan

### Appendix W      Hazardous Materials Management Plan

### Appendix X      Environmental Compliance and Monitoring Plan

### Appendix Y      Closure, Decommissioning, and Reclamation Plan

### Appendix Z      Easley sUAS Flight Operations Plan

### Appendix AA      Helicopter Use Plan

### Appendix BB      Preliminary Hydrology Study

## ACRONYMS

AC	alternating current
AGL	above ground level
BBCS	Bird and Bat Conservation Strategy
BESS	battery energy storage system
BLM	U.S. Bureau of Land Management
C	Celsius
CAISO	California Independent Systems Operator
CDCA	California Desert Conservation Area
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFC	California Fire Code
CFR	Code of Federal Regulations
CMA	Conservation and Management Action
CVGB	Chuckwalla Valley Groundwater Basin
CWA	Clean Water Act
DC	direct current
DFA	Development Focus Area
DRECP	Desert Renewable Energy Conservation Plan
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
F	Fahrenheit
FAA	Federal Aviation Administration
FEIS	Final Environmental Impact Statement
GCR	ground cover ratio
GHG	greenhouse gas
HLZ	Helicopter Landing Zone
IDT	interdisciplinary team
kV	kilovolt
LTDR	Lake Tamarisk Desert Resort
LUPA	Land Use Plan Amendment
MET	meteorological
MW	megawatt
NEPA	National Environmental Policy Act
NESC	National Electric and Safety Code
NIS	non-ionic surfactant
OPGW	optical ground wire
OSHA	Occupational Safety and Health Administration
PAR	Pesticide Application Record
PEIS	Programmatic Environmental Impact Statement
PFYC	Potential Fossil Yield Classification
PM10	particulate matter, 10 microns in diameter
POD	Plan of Development
PPA	Power Purchase Agree
PUP	Pesticide Use Proposal

PV	photovoltaic
ROD	Record of Decision
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition System
SCAN	Soil Climate Analysis Network
SCAQMD	South Coast Air Quality Management District
SF	Standard Form
SOPs	Standard Operating Procedures
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
UAS	unmanned aircraft system
USFWS	U.S. Fish and Wildlife Service
WEAP	Worker Environmental Awareness Program
WVEC	Westwide Energy Corridor



# PLAN OF DEVELOPMENT

## Easley Renewable Energy Project

Solar Energy Right-of-Way

IP Easley I, LLC, IP Easley II, LLC, and IP Easley III, LLC

## 1. PROJECT OVERVIEW

### 1.1. Introduction

IP Easley I, LLC, Easley II, LLC, and Easley III, LLC (Applicant or Proponent), subsidiaries of Intersect Power, LLC, propose to construct, operate and decommission the Easley Renewable Energy Project (Easley or Project), a utility-scale solar photovoltaic (PV) electrical generating and storage facility, and associated infrastructure to generate and deliver renewable electricity to the statewide electricity transmission grid.

The proposed Project application area is located on approximately 3,735 acres of private (990 acres) and BLM (2,745 acres)-administered land, in Riverside County north of Desert Center, California (see Figure 1). The project would generate up to 400 MW and store up to 650 megawatts (MW) of renewable electricity via arrays of solar photovoltaic (PV) panels, battery energy storage system (BESS), and appurtenant facilities. A 6.7-mile 500 kilovolt (kV) generation-tie (gen-tie) line would mainly traverse across the Oberon Renewable Energy Project site and connect into the existing Oberon substation. The Oberon Project is an adjacent solar and energy storage facility owned by Intersect Power. From the Oberon onsite substation, the power generated by the Easley Project would be transmitted to the SCE Red Bluff Substation via the existing Oberon 500 kV gen-tie line (see Figure 2).

Public lands within the Project solar application area are lands designated as Development Focus Area (DFA) by the Desert Renewable Energy Conservation Plan (DRECP) and associated Record of Decision (ROD), and thus, have been targeted for renewable energy development. Because the proposed Project is partially located on federal land under management of the U.S. Bureau of Land Management (BLM), the BLM is the lead agency under the National Environmental Policy Act (NEPA), 42 U.S.C. section 4321 et seq. Riverside County will be the lead agency under the California Environmental Quality Act (CEQA).

Depending on the timing of the interconnection agreement, the Easley Project could be online as early as late 2025. The Project would operate for a minimum of 35 years and up to 50 or more years. At the end of its useful life, the Project would be decommissioned, and the land returned to its pre-Project conditions. Revegetation would be conducted in accordance with the Decommissioning and Revegetation Plan.

### 1.2. Background on BLM Filings Related to the Easley Renewable Energy Project

Several of the Easley parcels were included in Standard Form (SF-) 299 applications and amendments by Aurora Solar, LLC, Starlight 2020, LLC, and IP Oberon, LLC, between November 2017 to February 2021. In

June 2021 and January 2022, an SF-299 and an amendment were submitted to BLM to add additional land and officially change the project name to the Easley Renewable Energy. BLM updated the project serial number to CACA-057822. With the amendment, the total project area then totaled 10,160 acres, of which 8,338 acres were BLM-administered land and 1,822 acres were private lands. In July 2022, the Applicant submitted another SF-299 amendment removing 3,847 acres of BLM-administered public lands from the Project application area.<sup>1</sup> The BLM lands removed were primarily the eastern and central parcels which included the following resources.

- Northern half of central parcel and entire eastern parcel comprised of aeolian sands; thereby, impacting design of the Project site since sand movement must be considered (CMAs DFA-VPL-BIO-DUNE-1 and DFA-VPL-BIO-DUNE-2).
- Potentially 2 rare plants of concern could be located within aeolian sands: chapparal sand verbena (*Abronia aillosa var aurita*) and Harwood's wooly aster (*Eriastrum harwoodii*) requiring 0.25-mile avoidance setback (CMA LUPA-BIO-PLANT-2).
- High occupancy of Mojave fringe-toed lizard within the active aeolian sand areas.
- Desert dry wash woodland on southern half of central parcels requiring 200-foot avoidance setback (CMAs LUPA-BIO-RIPWET-1 and LUPA-BIO-13).
- Potential cultural resources sensitivity.

Because these resources presented inconsistencies with the DRECP Conservation Management Actions (CMAs), the parcels were removed from the project footprint. The Proposed Action described herein now includes 2,745 acres of BLM lands and 990 acres of private lands.

### **1.3. Proponent's Purpose and Need for the Project**

The Proponent's purpose of the Project is to generate, store, and transmit renewable energy to the statewide wholesale electricity grid. The Proponent's identified need for the Project is to:

1. Support climate and clean energy goals of the Inflation Reduction Act of 2022 by helping to tackle the climate crisis and work towards achievement of President Biden's goal of a zero-carbon power sector by 2035 and zero-carbon economy by 2050 through development of clean electricity (power sector).
2. Assist the nation to meet its Nationally Determined Contribution commitments under Article 4 of the Paris Climate Agreement to achieve a 50 to 52 percent reduction in U.S. greenhouse gas pollution from 2005 levels by 2030, and to achieve 100 percent carbon pollution-free electricity by 2035 in the electricity sector.
3. Further the purpose of Secretarial Order 3285A1, establishing the development of environmentally responsible renewable energy as a priority for the Department of the Interior.
4. Deliver up to 400 MW of affordable, wholesale renewable energy to California ratepayers under long-term contracts with electricity service providers.
5. Assist with achieving California's renewable energy generation goals under the Clean Energy and Pollution Reduction Act of 2015 (Senate Bill 350) and the 100 Percent Clean Energy Act of 2018 (Senate Bill 100), as well as greenhouse gas (GHG) emissions reduction goals of the California Global Warming Solutions Act of 2006 (AB 32), as amended by Senate Bill 32 in 2016.

---

<sup>1</sup> At that time, 2,648 acres of private lands were also removed because of acquisition and biological resources constraints.



6. Enhance California’s fossil-free resource adequacy capabilities and help to solve California’s “duck curve” power production problem by installing up to 650 MW of 2-hour and/or 4-hour battery energy storage capacity<sup>2</sup>.
7. Minimize environmental impacts and land disturbance associated with renewable energy development by siting the facility on relatively flat, contiguous lands with high solar insolation, in close proximity to established utility corridors, existing transmission lines with available capacity to facilitate interconnection, and road access.
8. Conform with the Desert Renewable Energy Conservation Plan, including Conservation Management Actions.
9. Bring living-wage jobs to Riverside County.
10. Bring sales tax revenues to Riverside County by establishing a point of sale in the County for the procurement of most major project services and equipment.
11. Make the highest and best use of primarily disturbed, retired agricultural land in and around a federal “Solar Energy Zone” and “Development Focus Area” to generate, store, and transmit affordable, wholesale solar electricity.
12. Develop a commercially financeable renewable energy project.

The BLM’s purpose is to review and evaluate the Proposed Action and its need is to respond to a ROW application submitted by the Proponent to construct, operate, maintain, and decommission a solar PV and facility, including an integrated BESS, as well as associated electrical infrastructure on public lands in compliance with FLPMA, BLM right-of-way regulations, and other applicable federal laws and policies.

Approval of the Easley Renewable Energy Project on public lands involves a federal action and is thus subject to the environmental analysis requirements of the National Environmental Policy Act (NEPA). Because the construction, operation, and decommissioning of the proposed Action would be conducted in accordance with DRECP CMAs, an Environmental Assessment (EA) under NEPA is anticipated. The EA would tier to the DRECP Final Environmental Impact Statement (FEIS). The DRECP is a collaborative, interagency landscape-scale planning effort covering 22.5 million acres in seven California counties—Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego.

The DRECP has two primary goals. One is to provide a streamlined process for the development of utility-scale renewable energy generation and transmission in the deserts of southern California consistent with federal and state renewable energy targets and policies. The other is to provide for the long-term conservation and management of special-status species and desert vegetation communities, as well as other physical, cultural, scenic, and social resources within the DRECP Plan Area using durable regulatory mechanisms. DRECP planning decisions are “designed to both provide effective protection and conservation of important desert ecosystems, while also facilitating the development of solar, wind and geothermal energy projects in those unique landscapes.” The DRECP Land Use Plan Amendment (LUPA) and supporting FEIS, identified lands within the California desert that would be appropriate for conservation and lands that would be appropriate for renewable energy development, called Development Focus Areas (DFA), and as noted above, such DFA lands are proposed for the Easley Renewable Energy Project. The FEIS supporting the DRECP ROD comprehensively evaluated utility-scale renewable energy development in the California desert including the DFAs where the project is located. The FEIS considered impacts to all resources potentially impacted by renewable development. It included CMAs designed to reduce the effects of development on sensitive resources as well as highlighting other types of mitigation that might

---

<sup>2</sup> Battery duration may be up to 8 hours depending on technology and final design.

be required to further reduce impacts. A detailed project consistency CMA analysis is provided in POD Appendix C.

#### 1.4. Other Federal, State, and Local Agency Permit Requirements

Table 1 lists the required discretionary permits and approvals that have been identified for the Project. It is anticipated that the Riverside County will serve as the California Environmental Quality Act (CEQA) lead agency for the Project in connection with processing the permit applications listed in Table 1.

Also, the Applicant has applied for certification by the Governor as an Environmental Leadership Development Project (ELDP). Therefore, the Office of Planning and Research (OPR) is reviewing the Project under the ELDP criteria set forth in Senate Bill (SB) 7.

**Table 1. Other Permits and Approvals for the Easley Renewable Energy Project**

Agency	Permit	Applicability
<b>Federal</b>		
BLM	Grant of Right-of-Way	For solar and energy storage facility, gen-tie line, access road and associated facilities construction and operation on BLM-administered land.
United States Fish & Wildlife Service	Biological Opinion	For compliance with Section 7 of the federal Endangered Species Act.
U.S. Army Corps of Engineers	Clean Water Act Section 401/404 Certification	Only if Waters of the United States are determined to be present and potentially impacted on the project site.
<b>County</b>		
Riverside County	Conditional Use Permit	Construction of the solar facility on private land under County jurisdiction
	Public Use Permit	Construction of the gen-tie line on private land under County jurisdiction
	Parcel Mergers	Merging of contiguous solar facility parcels pursuant to State Subdivision Map Act.
	Construction Permit (Building Permit)	Riverside County authorizes construction activities under the master Construction Permit. This permit encompasses grading, building, electrical, mechanical, landscaping and other activities. The County's review for ordinance standards is undertaken as part of this review.
	Encroachment Permit	Riverside County requires an Encroachment Permit for utility trenching within a public right-of-way. The proposed gen-tie lines would be overhead when crossing roadways, however, driveway aprons for proposed access roads may require an encroachment permit.  As part of the application for the Encroachment Permit, the applicant must submit construction drawings and a traffic control plan for any work that would take place in public streets.
<b>State or Regional Approvals</b>		
South Coast Air Quality Management District (SCAQMD)	Dust Control Plan	A dust control plan is required to be submitted and approved by the SCAQMD prior to initiation of ground disturbances activities associated with construction.
	Authority to Construct and Permit to Operate	Facility backup generator permits for Project operations, if required.

Agency	Permit	Applicability
California Department of Transportation, District 8	Encroachment Permit	An encroachment permit would be required for installation of ingress egress lane(s) along SR-177, and construction of the gen-tie line across SR-177.
California Department of Fish and Wildlife (CDFW)	Lake and Streambed Alteration Agreement	For compliance with Fish and Game Code 1602 for all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state.
	Incidental Take Permit	For compliance with Section 2081 of the California Endangered Species Act.
Colorado River Basin Regional Water Quality Control Board (RWQCB)	CWA section 401 Water Quality Certification or Waste Discharge Requirements	Regulates the discharge of dredged or fill material under section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act.

## 1.5. Financial and Technical Capability of the Proponent

IP Easley I, LLC, IP Easley II, LLC, and IP Easley III, LLC are subsidiaries of Intersect Power, LLC. Founded in 2016, Intersect Power (Intersect) is a fully integrated clean infrastructure platform that develops and owns some of the world's largest renewable energy resources across multiple technologies and power markets. Intersect provides low-carbon electricity, fuels, and related products to customers across North America, enabling new pathways between clean electricity and the broader economy.

Intersect has a portfolio of 2.2-gigawatt peak (GWp) of solar PV + 1.4 GWh of battery storage, all of which will be under construction by Q2 2022 and operational by 2023. Intersect also has an emerging pipeline of 8.5 GWp + of renewable generation, 8 GWh+ of energy storage and 600 MW+ of green hydrogen production.

The Intersect team has shared experience in delivering over 6 GWp across more than 70 high-quality projects over the past decade. In the past ~2 years, Intersect has closed over \$5B in project financings and raised more than \$1B in corporate equity, which includes backing from TPG Rise Climate, Climate Adaptive Infrastructure, and Trilantic North America. In early 2023, Intersect secured up to \$800 million in corporate debt from a consortium of global project finance and corporate investment bank lenders to support its development pipeline and expansion of its clean energy platform.

Prior to forming Intersect, the Company's core team was critical in developing and building the Recurrent Energy platform. The team's functional expertise spans all relevant disciplines including site acquisition, permitting, interconnection, origination, engineering, procurement, construction, and finance. Intersect Power's team includes real estate, entitlement, and CEQA and NEPA expertise for energy infrastructure projects sited on both private and federal land in California.

The Intersect Power team has successfully developed four solar PV plus battery storage projects on a combination of private and public, BLM-managed lands in Riverside County, California, including the Athos I, Athos II, Blythe Mesa Solar II, and Oberon Renewable Energy Projects.

## 2. PROJECT DESCRIPTION

### 2.1. Project Location and Surrounding Land Uses

The Easley Project is located in Riverside County, north of I-10 and approximately 2 miles north of the town of Desert Center, California. The Easley solar and energy storage facility is located on private and BLM-administered land, with the legal description in POD Appendix B.

Figure 1 (Project Vicinity) illustrates the location of the proposed Project and its relationship to major highways, access roads, and communities. Figure 2 (Project Area) shows the Project area and gen-tie line, and Figure 3 shows only the Project components on BLM-administered land. Nearby land uses include previously developed or developing solar facilities, transmission lines, fallow and active agriculture, and rural residences.

The existing Desert Sunlight and Desert Harvest solar projects are north of the proposed Project, the Athos Renewable Energy Project is located to the east, the Oberon Renewable Energy Project to the southeast, and the Palen Solar Project farther to the southeast. Solar projects that are under construction nearby include the Arica and Victory Pass Solar Projects. The Sapphire Solar Project, proposed by EDF Renewables, is adjacent to the northern area of the Easley Project. Figure 4, East Riverside Solar Projects & DRECP Context, shows the proposed Easley Project in relation to other existing, approved, and proposed solar facilities in eastern Riverside County and illustrates the proposed consolidation of the gen-tie corridors.

The Project site is outside of but near desert tortoise critical habitat and the Desert Wildlife Management Area (DWMA). Alligator Rock Area of Critical Environmental Concern (ACEC) is approximately 3 miles south of the Project site and the closest Joshua Tree National Park boundary is located approximately 4 miles northeast of the Project site. The Project site includes a desert tortoise linkage area as defined in the DRECP, the Pinto Wash Linkage, but is outside of the Chuckwalla ACEC. The Project is situated within the Desert Center, Victory Pass, East of Victory Pass, and Corn Spring 7.5 USGS topographic quadrangles.

The Project is located within the Chuckwalla Valley Groundwater Basin (CVGB), which is located in eastern Riverside County and encompasses an area of approximately 904 square miles. The CVGB is located within the jurisdiction of the Colorado River Basin Regional Water Quality Control Board (RWQCB) and is subject to management direction of the Water Quality Control Plan (Basin Plan) for the Colorado River Basin (Region 7). The CVGB is bounded by consolidated rocks of the Chuckwalla, Little Chuckwalla, and Mule Mountains on the south, of the Eagle Mountains on the west, and of the Mule and McCoy Mountains on the east. Rocks of the Coxcomb, Granite, Palen, and Little Maria Mountains bound the valley on the north. The presence of seismic faults is considered likely in some parts of the CVGB, but no barriers to groundwater flow have been identified.

### 2.2. Project Components

#### 2.2.1. Summary of All Project Components

The proposed Project on both private and BLM-administered land would consist of the following major components, which are described in greater detail in this section:

- **Solar and Energy Storage Facility** (990 acres of private land, 2,745 acres of BLM-administered land)
  - **Solar array field**, which may include thin-film PV panels, crystalline silicon panels, or any other commercially available PV technology. The proposed panel mounting system will depend on the PV panels ultimately selected but is expected to be single-axis trackers with a portrait module

orientation. Either mono-facial or bi-facial modules could be used, and modules would be mounted as single panels.

- **Power conversion stations** on a concrete pad or steel skid for each 2 to 5 MW increment of generation, containing up to 6 inverters, a transformer, a battery enclosure, a switchboard 8 to 11 feet high, a shade structure (depending on meteorological conditions), and a security camera at the top of an approximately 20-foot wood or metal pole.
- System of **34.5 kV interior collection power lines** located between inverters and substations, located underground and installed overhead on wood poles.
- **Onsite substation yard** with an onsite substation and associated equipment would require 25 acres within the Project site. Electrical transformers, switchgear, and related substation facilities would transform 34.5 kV medium-voltage power from the Project’s delivery system to the 500 kV gen-tie line system.
- **Upgrades to the Oberon Switchyard**, including installation of a circuit breaker, disconnect switches, steel H-frame (transmission getaway), and controls upgrades, within its fenceline to accommodate interconnection of the Easley 500 kV gen-tie line.
- **Operations and maintenance (O&M) facilities** near the substation yard for Project security, employee offices, and parts storage with separate buildings for substation and BESS operations.
- **12 kV electrical distribution line** would supply electricity to the O&M building and substation via a new overhead or underground 12 kV distribution line from the existing SCE distribution system adjacent to the solar facility site.<sup>3</sup> In addition, approximately 0.25 mile of existing SCE 12 kV distribution line would need to be relocated to accommodate development of solar panels. The relocated distribution line would be located on BLM-administered land east of Rice Road and would follow existing linear infrastructure.
- **Supervisory Control and Data Acquisition System (SCADA) and telecommunications facilities** to allow remote monitoring of facility operation and/or remote control of critical components. The fiber optic or other cabling typically would be installed in buried conduit within the access road, leading to a SCADA system cabinet centrally located within the project site or a series of appropriately located SCADA system cabinets constructed within the O&M building. External telecommunications connections to the SCADA system cabinets could be provided through wireless or hard-wired connections to locally available commercial service providers.
- **Meteorological (MET) data collection system** with up to 14 MET stations located throughout the solar facility. Each MET station would be up to 10 feet tall with multiple weather sensors.
- **Battery energy storage system (BESS)**, requiring up to 35 acres, utilizing an AC-coupled battery or other similar storage system housed in electrical enclosures and capable of storing up to 650 MW of power for 2 to 4 hours. At present the BESS would be located adjacent to the substation yard on private land.<sup>4</sup>
- **Standby power source**, if needed, is anticipated to be a diesel or propane-powered backup generator rated at 45 kilowatts or approximately 61 horsepower, to power the site security system in the event of an outage.

---

<sup>3</sup> Electrical distribution systems carry power the last few miles from the transmission or sub-transmission grid to interconnect with consumers at a lower voltage. Distribution networks are distinguished from transmission networks by their voltage level and topology.

<sup>4</sup> Depending on available technology, the BESS could be installed with a storage capacity of up to 8 hours.

- **Perimeter fencing** would be installed around the boundary of the developed areas using chain link perimeter fences or a fence design determined in consultation with Riverside County and BLM.
- **Newly constructed access roads** and entrances from Highway 177/Rice Road, surrounding County roads, and throughout the interior of the project limits. Ingress/egress would be accessed via locked gates located at multiple points.
- **Nighttime security lighting** limited to areas required for operation, safety, or security. Lighting would be directed away or shielded from major roadways or possible outside observers on adjacent properties. Lighting would be controlled by switches, motion detectors, etc., to light the areas only when required. Portable lighting may be used occasionally and temporarily for maintenance activities during operations.
- **Site security system** includes infrared security cameras, motion detectors, and/or other similar technology to allow for monitoring of the site through review of live footage 24 hours a day, 7 days a week. Such cameras or other equipment would be placed along the perimeter of the facility and/or at the inverters.
- **New 500 kV Gen-tie Line**, approximately 6.7 miles, within a 175-foot ROW on BLM-administered land.

## **2.2.2. Photovoltaic Modules and Support Structures**

Solar cells, also called PV cells, convert sunlight directly into electricity. PV gets its name from the process of converting light (photons) to electricity (voltage), which is called the “Photovoltaic effect.” PV cells are located on panels, which are mounted at a fixed angle facing south or on a tracking device that follows the sun. Many solar panels on multiple rows combined together and controlled by a single motor create one system called a solar tracker. For large electric utility or industrial applications, hundreds of solar trackers are interconnected to form a utility-scale PV system.

The proposed solar facility would include several million solar panels; the final panel count would depend on the technology ultimately selected at the time of procurement. The ultimate decision for the panel types and racking systems described here would depend on market conditions and environmental factors, including the recycling potential of the panels at the end of their useful lives.

Types of panels that may be installed include thin-film panels, crystalline silicon panels, or any other commercially available PV technology. Solar thermal technology, in which solar energy is used to heat a liquid as an intermediate step to generating electricity, is not being considered. The proposed panel mounting system will depend on the PV panels ultimately selected, but the Applicant is currently planning to use a single axis tracker with a portrait module orientation. Either mono-facial or bi-facial modules could be used, and modules would be mounted as single panels. A diagram of a typical single-axis tracker is shown in Figures 5 and 6).

The PV modules would be manufactured at an offsite location and transported to the project site. Panels would be arranged in strings with a maximum reveal height of 14 feet at full tilt or slightly higher due to topography. Panel faces would be minimally reflective, dark in color, and highly absorptive.

For single-axis tracking systems, each row of panels would be up to 450 feet along a north/south axis. For fixed-tilt systems, a row consists of multiple tables (4 panels high by 10 panels wide, depending on design), each table approximately 65 feet along the east/west axis, with 1-foot spacing between each table. Spacing between each row would be a minimum of 4 feet. The solar panel array would generate electricity directly from sunlight, which would be collected, converted to alternating current, stored, and delivered to the on-site project substation.

Structures supporting the PV modules would consist of steel piles (e.g., cylindrical pipes, H-beams, helical screws, or similar structures), which would be driven into the soil using pneumatic techniques such as a hydraulic rock hammer attachment on the boom of a rubber-tired backhoe excavator. The piles typically would be spaced 10 feet apart north-to-south, and 17 feet to 25 feet apart east-to-west with a 50% to 30% ground cover ratio (GCR). For a single-axis tracking system, piles typically would be installed to a reveal height of approximately 12 inches above grade (but could be higher to compensate for terrain variations and clearance due to water/flooding). For single axis tracking systems, following pile installation, the associated motors, torque tubes, and drivelines (if applicable) would be placed and secured. Some designs allow for PV panels to be secured directly to the torque tubes using appropriate panel clamps. For some single-axis tracking systems a galvanized metal racking system, which secures the PV panels to the installed foundations, would be field-assembled and attached according to the manufacturer's guidelines. Tracking arrays would be oriented along a north-south axis with panels tracking east to west to follow the movement of the sun. The panels would be stowed at their maximum tilt (60 degrees) overnight.

Where excavations are required, most proposed construction activities would be limited to less than 6 feet in depth; however, some excavations, such as those undertaken for the installation of the gen-tie structures and substation components, may reach depths of 45 feet or more.

### **2.3. Inverters, Transformers, and Electrical Collection System**

The project would be designed and laid out primarily in module blocks of 2 to 5 MW. Each module block would include a Power Conversion Station area measuring 40 feet by 25 feet. The color of the Power Conversion Station would be desert tan, depending on availability from the manufacturer, or treated BLM standard environmental color Carlsbad Canyon. As necessary, module blocks would be designed and sized as appropriate to accommodate the irregular shape of the project footprint. The final module block sizes ultimately would depend on available technology and market conditions. Each 2 to 5 MW block would include a Power Conversion Station constructed on a concrete pad or steel skid centrally located within the PV arrays. Each Power Conversion Station would contain up to six inverters, a transformer, a battery enclosure, and an 8 to 11 feet high switchboard (see Figure 7 for the layout of a typical inverter skid). The pads would contain a security camera at the top of an approximately 20-foot wood or metal pole. If required based on site meteorological conditions, an inverter shade structure would be installed at each pad. The shade structure would consist of wood or metal supports and a durable outdoor material shade structure (metal, vinyl, or similar). The shade structure, if utilized, would extend up to 10 feet above the ground surface, and depending on the material used would be Carlsbad Canyon or a similar desert tan provided by the manufacturer.

Panels would be electrically connected into panel strings using wiring secured to the panel racking system. Underground cables would be installed to convey the direct current (DC) electricity from the panels via combiner boxes located throughout the PV arrays, to inverters located at the Power Conversion Station that would convert the DC to alternating current (AC) electricity. The output voltage of the inverters would be stepped up to the required collection system voltage at pad mount transformers located near the inverters within the Power Conversion Station.

The Applicant anticipates undergrounding the Easley collector lines except for short segments where overhead lines may be required due to engineering or other feasibility constraints. The 34.5 kV level collection cables would be buried underground in a trench about 4 feet deep, with segments installed overhead on wood poles to connect all of the solar facility development areas to the onsite substation, which may involve an overhead or underground crossing of Rice Road/Highway 177. Thermal specifications require 10 feet of spacing between the medium voltage lines, and in some locations closer to the onsite substation interconnection more than 20 medium voltage AC lines run in parallel.

If the collection system is installed overhead, up to approximately 30 wood poles located between 150 to 250 feet apart could be installed on the site in areas where several circuits would need to cross each other. The typical height of the poles would be approximately 30 to 60 feet, with diameters varying from 12 to 20 inches (see Figure 8, Typical 34.5 kV Medium Voltage Line Structures).

## **2.4. Project Substation Yard**

The project substation yard would transform or “step up” the voltage from 34.5 kV to 500 kV. The area of the substation and associated equipment would require approximately 25 acres within the Project site. The substation would collect consolidated intermediate voltage cables from the MV and PV collector system. Electrical transformers, switchgear, and related substation facilities would be designed and constructed to transform medium-voltage power from the Project’s delivery system via the new gen-tie line to the Oberon Switchyard, at which point Easley solar generated power would be transmitted to the SCE Red Bluff Substation via the existing Oberon 500 kV gen-tie line (see Figure 2).

The internal arrangement for each substation would include:

- Power and auxiliary transformers with foundations
- Prefabricated control buildings to enclose the protection and control equipment, including relays and low voltage switchgear (each building is approximately 24 feet by 60 feet, and 10-20 feet high).
- Metering stand.
- Capacitor bank(s).
- Circuit breakers<sup>5</sup> and disconnect switches.
- One microwave tower adjacent to the control building comprising a monopole structure up to 100 feet in height mounted with an antenna up to 5 feet in diameter.
- Dead-end structure(s) up to 199 feet in height to connect the Project substation to the grid; and
- One or more Control Buildings.

The substation area would be graded and compacted to an approximately level grade, although the substation pad may be elevated a few feet pending detailed hydrological study of the area. Concrete pads would be constructed on site as foundations for substation equipment, and the remaining area would be graveled to a maximum depth of approximately 12 inches. Because each of the substation transformers would contain mineral oil, the substation would be designed to accommodate an accidental spill of transformer fluid by the use of containment-style mounting. The substation yard would be surrounded by an up-to 7-foot-high chain link fence topped with one foot of barbed wire or a 7-foot-high concrete masonry unit (CMU), concrete, or brick wall. Each of the dead-end structures would require foundations excavated to a depth of 20 feet or more.

## **2.5. 500 kV Gen-tie Transmission Line**

The Project would include an approximate 6.7-mile 500 kV gen-tie line starting at the onsite substation located on private property (APN 808-023-018). Just south of the substation, the 500 kV gen-tie line would enter the Oberon Renewable Energy Project site and would be located on BLM-administered land for the remainder of the route. The gen-tie line would exit the substation and travel approximately 0.2 miles due south to cross Rice Road/Highway 177, where it would turn southwest to parallel the eastern side of Rice Road/Highway 177 for 1.1 miles before turning east and then southeast for nearly 1 mile to meet BLM Open Route DC379. The line would parallel the north side of BLM Open Route DC379 and the existing Desert Sunlight and Desert Harvest 230 kV gen-tie lines for 3.8 miles before turning south for 0.6 miles to interconnect to the Oberon Switchyard.

---

<sup>5</sup> In accordance with CARB requirements, use of SF6 equipment will be avoided to the greatest extent feasible.



The Oberon Substation and Switchyard area was constructed by Intersect Power anticipating a potential future interconnection of the Easley Project. In order for the Easley gen-tie line to interconnect, upgrades to the Oberon Switchyard would be required within its fence line to accommodate interconnection of the Easley 500 kV gen-tie line. The upgrades are expected to include installation of:

- 500 kV Circuit Breaker.
- 500 kV Disconnect Switches (2).
- Steel H-Frame (transmission getaway); and
- Controls Upgrades.

From the Oberon Switchyard, solar power generated by the Easley Project would be transmitted to the SCE Red Bluff Substation via the Oberon 500 kV gen-tie. The project 500 kV gen-tie line would be located within a 175-foot ROW, across BLM administered lands. Conductor span lengths generally range from a minimum of 400 feet to a maximum of 2,200 feet for 500 kV lines.

The Project gen-tie line would be constructed with monopoles, and would be on average 120 feet tall, with a maximum height of up to 199 feet. The total number of gen-tie support structures would be approximately 25 structures with the exact number to be determined by the final alignment of the gen-tie line. See Figure 9 for a depiction of typical 500 kV gen-tie line structures.

The BLM is coordinating with the Department of Defense (DoD) regarding concerns about potential interference of the 500 kV gen-tie structures with low-level military flight paths in the Project area. Depending on the outcome of the BLM-DoD consultation, infrared obstruction lighting may be installed on structures over 180 feet high that are located in areas where the new structures would be taller than existing nearby structures. While it is expected that all gen-tie structures would be under 180 feet, for the purposes of this environmental analysis, it is assumed that no more than 6 structures may require up to two infrared lights installed in a manner to ensure an unobstructed view of one or more infrared lights by a military pilot. Note, that because any required lighting would be infrared, it would not be visible to the naked human eye.

## **2.6. Operations and Maintenance Facilities**

New O&M facilities would be constructed at the Project site. Visual BMPs would be incorporated into the design in accordance with *Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands* (2013). The facilities would be designed for Project security, employee offices, and parts storage with separate operations buildings for the solar facility and BESS. The O&M facility would include the following components: two O&M office buildings (which may share a wall), each approximately 3,000 square feet and 15 feet at the tallest point, up to 16 storage CONEX containers for spare parts covering a total area of approximately 7,500 square feet, laydown yards, and a parking area. The O&M area would also include a shade canopy not to exceed 20 feet in height. The O&M buildings may be constructed on a concrete foundation. A diagram of a typical O&M building floor plan is shown in Figure 10.

## **2.7. SCADA and Telecommunications Facilities**

The facility would be designed with a comprehensive Supervisory Control and Data Acquisition System (SCADA) system to allow remote monitoring of facility operation and/or remote control of critical components. The fiber optic or other cabling required for the monitoring system would typically be installed in buried conduit, leading to a SCADA system cabinet centrally located within the Project site or a series of appropriately located SCADA system cabinets constructed within the O&M building. External telecommunications connections to the SCADA system cabinets could be provided through wireless or hard-wired

connections to locally available commercial service providers. The Project's SCADA system would interconnect to this fiber optic network at the onsite substation and may include an up to 50-foot telecom pole.

The California Independent Systems Operator (CAISO) and project's interconnecting utility, SCE, require that 500 kV power plant interconnection facilities contain three fiber optic communications lines – one primary and two redundant. They must be separate to ensure full and true redundancy.

Therefore, the Easley Project requires three paths of communications between the substations with at least 30 feet of separation between each line. As a result, two of those communication lines would be attached on the 500 kV gen-tie line transmission structures. A third fiber optic line would be installed underground, likely in the gen-tie line access road to accommodate the separation requirements and minimize operational visual impacts. The underground fiber optic line would be installed in a trench approximately one foot wide by two feet deep.

## **2.8. Battery Energy Storage System**

Battery energy storage systems (BESS) can assist grid operators in more effectively integrating intermittent renewable resources into the statewide grid. The Project could include, at the Applicant's option, a battery energy storage system capable of storing up to 650 MW of electricity for up to 4 hours, requiring up to 35 acres that would be located near the substation (see Figure 11 for a photograph of a typical BESS enclosure). If provided, the storage system would consist of battery banks housed in electrical enclosures and buried electrical conduit. The battery system would be located near the Project switching station to facilitate interconnection and metering. Alternatively, smaller individual BESS systems may be located near each the inverters.

Approximately 500 electrical enclosures ("Megapacks") would be installed in six 4-foot storage containers, each measuring approximately 40 feet by 8 feet by 8.5 feet high, on concrete foundations designed for secondary containment. The Project could use any commercially available battery technology, including but not limited to lithium ion, zinc, lead acid, vanadium, sodium sulfur, and sodium or nickel hydride.

Battery systems would require air conditioners or heat exchangers and inverters. In addition, three 15,000-gallon water tanks are anticipated to provide fire safety.

The BESS would comply with the current California Fire Code (CFC), which governs the code requirements to minimize the risk of fire and life safety hazards specific to battery energy storage systems used for load shedding, load sharing and other grid services (Chapter 12 Section 1206 of the 2019 CFC). In accordance with the CFC, the battery enclosure and the site installation design are all required to be approved by the State Fire Marshal.

In addition to the BESS containers, the BESS area would include one double-wide office trailer (60 feet by 24 feet) with a shade canopy, a staging area, a clearance area, and a parking area.

## **2.9. Meteorological Data Collection System**

The Project would include a meteorological (MET) data collection system with up to 14 MET stations, such as a Soil Climate Analysis Network (SCAN) station or other applicable technology. Each MET station would have multiple weather sensors: a pyranometer for measuring solar irradiance, a thermometer to measure air temperature, a barometric pressure sensor, and wind sensors to measure speed and direction. The 4-foot horizontal cross-arm of each MET system would include the pyranometer mounted on the left-hand side and the two wind sensors installed on a vertical mast to the right. The temperature sensor would be mounted inside the solar shield behind the main mast. Each sensor would be connected by cable to a data logger inside the enclosure.

## **2.10. Access Roads**

### **2.10.1. Main Access**

Access to the Project site would be provided from Rice Road/State Route 177 through up to 7 primary and 3 secondary driveway entrances and from Kaiser Road. BLM open routes and agricultural roads would also be improved. If building structures, such as the O&M Building, and associated access roadways would be within 1,320 feet of State Route 177, secondary access is not required by the Riverside County Fire Department.

All new and improved access roads would be at least 24 feet wide with a two-foot-wide shoulder on each side, for a total width of approximately 30 feet, including allowances for side slopes and surface runoff control. These roads would be surfaced with gravel, compacted dirt, or another commercially available surface and would provide a fire buffer, accommodate project O&M activities such as cleaning of solar panels and facilitate on-site circulation for emergency vehicles. Dust control would be implemented as necessary to mitigate dust plumes. The roadway system would be specially designed to accommodate the safe passage of desert tortoise and other wildlife across the site. If gravel is used for road surfaces, portions of road lengths would remain free of gravel in strategic locations in order to facilitate tortoise movement. In addition, culverts may be placed along internal roads to reduce the potential to disturb or injure tortoise individuals.

### **2.10.2. Internal Roadway System**

The project's on-site roadway system would include a perimeter road surrounding the solar panels within the development fence lines, access roads, and internal roads. Inverters are provided dedicated access roads for maintenance and emergency services, including turnarounds that would accommodate standard fire and emergency vehicle standards.

The perimeter road and main internal access roads and gates would be consistent with the California Building Code and Riverside County requirements. These roads would be surfaced with gravel, compacted dirt, or another commercially available surface and would provide a fire buffer, accommodate project O&M activities such as cleaning of solar panels, and facilitate on-site circulation for emergency vehicles.

Dust control would be implemented as necessary to mitigate dust plumes. If wildlife-friendly fencing is installed during operation, the roadway system would be specially designed to accommodate the safe passage of desert tortoise and other wildlife across the site. If gravel is used for road surfaces, portions of road lengths would remain free of gravel in strategic locations to facilitate tortoise movement. Culverts may be placed along internal roads.

## **2.11. Solar Facility Site Security, Fencing and Lighting**

### **2.11.1. Controlled Access**

Multiple points of ingress/egress would be accessed via locked gates located at multiple points. Each Project unit would have at least one point of access. The driveway aprons off of Rice Road/Highway 177 and approximately 100 feet of roadway (or as dictated by Caltrans) would be paved within Caltrans right-of-way to prevent track-out.

### **2.11.2. Fencing**

The solar facility would be enclosed with fencing that meets National Electric and Safety Code (NESC) requirements for protective arrangements in electric supply stations. The boundary of the Project com-

ponents (i.e., solar arrays, substation, BESS) would be secured by at least 6-foot-high chain link perimeter fences, likely topped with one foot of three strand barbed wire. The fence would be set approximately 10 to 100 feet (average of 20 feet) from the edge of an array. Desert tortoise exclusion fencing would be constructed along the bottom of the security fence for project construction. Desert tortoise exclusion fencing would remain in place during operations (either separate from or integrated with the project security fence) except in places where wildlife-friendly fencing may be implemented over a portion of the solar facility site, as described in Section 4.6 (Wildlife-Friendly Fencing).

Project infrastructure would maintain 20-foot setbacks from external private land property boundaries, and internally, panel infrastructure would be set back 5 feet on the private side from public/private parcel boundaries. External fencing would be set back 5 feet from all external parcel boundaries. Linear features, such as fences, medium voltage collector line cabling, internal roadways, etc., may cross public/private property boundaries.

### **2.11.3. Lighting**

Care would be taken to prevent undue light pollution from nighttime security lighting, as described in an approved Nighttime Lighting Plan. Lighting at high illumination areas is not required on a continuous basis so would be controlled by switches, motion detectors, etc., to light areas only when required. All lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties and major roadways.

To reduce offsite lighting impacts, lighting at the facility would be restricted to areas required for safety, security, and operation, such as the O&M building. Security lights would use motion sensor technology that would be triggered by movement at a human's height, as not to be triggered by smaller wildlife. The level and intensity of lighting during operations would be the minimum needed and would comply with guidelines, such as BLM Technical Note 457 (Night Sky and Dark Environments: Best Management Practices for Artificial Light at Night on BLM-Managed Lands) on BLM-administered land to the maximum extent feasible <sup>6</sup>. Portable lighting may be used occasionally and temporarily during construction and for maintenance activities during operations, such as emergency work that must occur at night.

### **2.11.4. Other Security Measures**

Nighttime activities are anticipated to be minimal during Project operations. Off-site security personnel could be dispatched during nighttime hours or could be on-site, depending on security risks, emergency maintenance requirements, and operating needs. Infrared security cameras, motion detectors, and/or other similar technology would be installed to allow for monitoring of the site through review of live footage 24 hours a day, 7 days a week. Such cameras or other equipment would be placed along the perimeter of the facility, at the inverters, laydown areas and/or pre-fabrication areas. Security cameras located at the inverters would be posted on poles approximately 20 feet high.

---

<sup>6</sup> Technical Note 457 provides awareness of BMPs for effective outdoor lighting to reduce light pollution. It does not represent requirements for implementation of BMPs to protect dark sky resources. Rather, its information is intended to be available to BLM authorized officers to support alternatives development and agency decisions on BLM-administered lands when artificial light at night is identified as an issue or is being managed to support resource management plan objectives.

### 3. CONSTRUCTION OF FACILITIES

#### 3.1. Construction Schedule and Workforce

Construction is anticipated to require approximately 20 months, depending on Power Purchase Agreement (PPA) and financing requirements. The on-site workforce would consist of laborers, craftsmen, supervisory personnel, supply personnel, and construction management personnel. The on-site workforce is expected to reach its peak of approximately 530 individuals with an average construction-related on-site workforce of 320 individuals.

Preconstruction surveys, including desert tortoise exclusion fencing installation and clearance surveys, would be conducted, followed by construction of the main access road, security fencing around solar facility site, clearing and construction of a laydown yard, site grading and preparation, construction of the O&M building, parking area, and pad mounts for transformers. Construction would continue with the installation of temporary power, construction of on-site roads, construction of the Project substation, and assembly and installation of panel blocks and wiring.

Construction would occur between the hours of 6:00 a.m. and 7:00 p.m. Monday through Friday for up to a maximum of 13 hours per day. During summer months, construction would begin early to minimize work during the hottest periods of the day. Likewise, limited, targeted night work may also be required by the interconnecting utility or for similar electrical work. Weekend construction work is not expected to be required on a regular basis, but may occur on occasion, depending on scheduling considerations.

#### 3.2. Ground Disturbance

Table 2 provides the details of the ground disturbance required by construction, operation, and decommissioning of the solar and BESS facility, gen-tie line, and access roads on BLM and private land. Ground disturbance estimates would be refined during final engineering.

**Table 2. Disturbance Estimates for Easley Renewable Energy Project**

Component	Temporary Disturbance (acres)	Permanent Disturbance (acres)
Solar & BESS Facility	0	2,050.5
Exterior Components (Roads & Collector/Distribution Lines)	0	40.7
500 kV Gen-tie Line (monopole structures)	40.5	13.5 (175-ft ROW: 138.3 acres)
Conductor Pull & Tensioning Sites (outside of structure erection areas)	46	0
Guard Structures at Road/Line Crossings	1.8	0
Spur Roads	0	0.04
<b>TOTAL</b>	<b>88.3 acres</b>	<b>~2,100 acres</b>

*Ground Disturbance Assumptions*

- Permanent disturbance at each 500 kV pole location would be ~0.03 acre. Up to approximately 45 gen-tie structures would be located on BLM-administered land within a 175-foot ROW. Final gen-tie line impact acreages will be less than the 175-foot-wide ROW shown in the table, as impacts would occur only at structures and spur roads. Furthermore, structures would be micro-sited to minimize impacts to sensitive habitats and resources to the maximum extent feasible.
- Span length for the 500 kV line would vary from 400 to 2,200 feet.
- Temporary structure erection is 200 feet by 200 feet (~0.9 acre) at each structure location.

- Temporary pull and tension sites: 600 feet long by 200 feet wide (~2.8 acre); Angle poles sites: 1,000 feet long by 200 feet wide (~4.6 acre) Temporary disturbance for pull and tensioning generally extends past each dead-end or angle structure. Necessary for conductor stringing equipment and placement of wire reels (approximately 10 wire pulling sites are needed, most of which are angle poles). For all but angle structures, temporary disturbance for pull and tensioning would occur within the 175-foot ROW or extend into the solar facility development footprint.
- New spur roads would typically have circle-type turnaround areas averaging 450 square feet around each structure location.
- Guard Structures: 100 feet wide by 100 feet long (~0.23 acre). Placed on either side of existing roads, crossings of existing lower voltage distribution or transmission lines, or other obstacles to maintain vertical clearance during construction activities only (approximately 8 guard structures needed).
- Temporary trench width per 34.5 kV line: 40-foot width.

### **3.3. Pre-Construction Activities**

Pre-construction activities at the Project site would be undertaken to prepare the site and crews for construction. These pre-construction activities are listed below.

#### **3.3.1. Pre-Construction Surveys**

Qualified biologists would conduct pre-construction surveys for sensitive species. Sensitive resource areas would be flagged or fenced so they are avoided or appropriately managed during construction. If necessary, wildlife, and certain types of qualifying cacti would be removed from the site and relocated so that construction and necessary conservation work may be conducted in the work area. Species relocation areas would be established in consultation with U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), BLM, and County staff.

#### **3.3.2. Geotechnical Evaluation**

The Applicant would conduct a geotechnical evaluation to gather information on the physical properties of the soil and rock for incorporation into the design of the facility. Subsurface scientific testing and analysis would include geotechnical borings, trenching, and pile testing along the routes. Geotechnical work may be conducted in advance of issuance of an executed ROW Grant on BLM-administered land under a scientific collection permit from the BLM. In all cases, biological and cultural resources surveys would occur in advance of any ground-disturbing activities, and environmental monitoring would occur during such activities.

#### **3.3.3. Construction Crew Training**

Prior to construction, all contractors, subcontractors, and Project personnel would receive a County and BLM approved Worker Environmental Awareness Program (WEAP) training, which would emphasize the following:

- Appropriate work practices necessary to effectively understand and implement the environmental resource commitments in the project description.
- Implementation of the mitigation measures.
- Compliance with applicable environmental laws and regulations.
- How to avoid and minimize impacts; and
- Understanding the importance of environmental resources and the purpose and necessity of protecting them.

### **3.3.4. Surveying, Staking, and Flagging**

Pre-construction field survey work would include identifying precise locations of the site boundary, security fence, and ROW boundary. These features would be subsequently staked in the field. No paint or permanent discoloring agents would be applied to rocks or vegetation to indicate survey or construction limits. All off-road vehicle travel across BLM-administered land would be monitored by qualified biologists, archaeologists, and tribal monitors, as appropriate.

### **3.3.5. Desert Tortoise Fence Installation**

A desert tortoise exclusion fence, if required, would be installed per the USFWS protocol. The permanent desert tortoise fence would be integrated with the site security fence for maximum durability. Fence installation would be monitored by qualified biologists, archaeologists, and tribal monitors, as appropriate. Following installation, clearance surveys would be conducted.

### **3.3.6. Biological Clearance Surveys**

Desert tortoise, mammal, and burrowing owl clearance surveys would be conducted following fence installation. Mammals and owls would be passively relocated using one-way doors or other techniques. Desert tortoise individuals within the solar facility fence line would be actively translocated to an approved site pursuant to an approved Translocation Plan to be developed in consultation with USFWS and the California Department of Fish and Wildlife (CDFW).

Due to its low elevation, the Chuckwalla Valley historically becomes warmer much earlier than the majority of the desert tortoise range in higher elevation. Clearance surveys are challenging to complete within the limited temperature constraints during the protocol survey period since ambient temperatures often exceed 100 degrees Fahrenheit (F) before the end of April and into October in Chuckwalla Valley. Therefore, temperature thresholds for clearance surveys may be up to 40 degrees Celsius (C) (104 degrees F) in areas that do not have a high modelled desert tortoise occupancy; and/or historical data did not have active desert tortoise sign within the area or in immediate adjacent areas; and/or are adjacent to Rice Road/Highway 177, with a higher level of human disturbances. If a desert tortoise is found within the fenced areas during clearance surveys when temperatures are beyond 35 degrees C (95 degrees F), the desert tortoise would be observed for the day by a biologist (at a distance with binoculars) until dusk when it settles. It will be located at dawn again and observed until it can be handled within the proper temperature to affix a transmitter by an authorized biologist. Any handling of desert tortoises would always be below the temperature of 95 degrees.

### **3.3.7. Establishment of Construction Staging Area**

Several staging areas would be established within the solar facility site boundaries for storing materials, construction and pre-fabrication equipment, and vehicles. The staging areas would be surveyed and monitored by qualified biologists, archaeologists, and tribal monitors, as appropriate.

## **3.4. Construction Phase 1: Site Preparation**

### **3.4.1. Construction-Related Grading and Vegetation Management**

Mass grading would not be conducted on the project site. Several solar and storage facility locations would require specific ground treatments, but this represents a minority of the ground surface of the facility. The substation, storage container, O&M facility, laydown yards, pre-fabrication areas, and internal and external road locations would require mowing, grubbing, grading and compaction. Inverter station

locations would require light grubbing. The solar array areas would require mowing and rolling of woody vegetation to a height of 12 inches in an effort to preserve vegetation and provide for better and faster post-construction site revegetation. In some locations, such as at solar array pile locations, root balls would need to be removed, which would require light grading. Woody vegetation, such as palo verde trees, that are in areas adjacent to infrastructure where it does not impact solar panel performance would be partially cut, leaving the lower trunk intact to allow regrowth of branches and leaves. Certain areas of the site with highly irregular topography that provide important hydrologic functions to the site would be avoided by project design. Other irregular areas would be leveled or smoothed to provide for construction access and installation.

Best management practices identified in the project Fugitive Dust Control Plan would be implemented during all grading and vegetation removal activities, including the possibility of using mulching. To reduce water usage, calcium chloride or a similar soil binder approved by BLM may be applied to dirt roadways for dust abatement purposes. Additional best management practices (BMPs) for site preparation and construction are also listed in Section 7 (Applicant Proposed Measures and Best Management Practices).

The site cut and fill would be approximately balanced, as shown in Table 3 (final design may require slightly different volumes). The Project would require some import of non-native materials, but minimal import/export would be necessary. The substation and BESS would be graded to an elevation above the surrounding grade to avoid flooding and excavated soils (net export) would likely be used at the site to create a balanced cut/fill for the project. On-site pre-assembly of trackers would take place in the staging area. Temporary laydown/prefabrication areas would be located within the solar facility footprint, gen-tie work areas, and/or Oberon Switchyard yard.

**Table 3. Estimated Cut and Fill Volumes (Pending Final Engineering)**

Project Component	Approximate Acreage	Cut/Fill (CY)	Comments
Solar Arrays, including Access Roads	~2,000	Balanced	The solar array areas would be mowed and grubbed, and more-or-less leveled or smoothed to provide for construction access and installation.
Substation	25	40,333 CY* Import	These sites would be graded and backfilled to an elevation above the surrounding grade to avoid flooding. In addition to imported base, excess soils from storm water basin excavations would be used as well.
BESS	35	56,467 CY* Import	
O&M	10	Balanced	The O&M site would be graded and compacted.
Storm Water Basins	n/a	Export	Excavated soils would be relocated and used in the substation/BESS areas.
Temporary Parking & Laydown	5	Balanced	Temporary parking and laydown areas would be graded and compacted.

\*Estimated base, assuming 12-inch depth.

### 3.4.2. Erosion and Sediment Control and Pollution Prevention

A Stormwater Pollution Prevention Plan (SWPPP) or SWPPP-equivalent document would be prepared by a qualified engineer or erosion control specialist, and once approved by the State Water Resources Control Board and a BLM hydrologist, would be implemented before and during construction. The SWPPP would reduce potential impacts related to erosion and surface water quality during construction activities and throughout the life of the solar and storage facility. It would include project information and best management practices (BMPs). The BMPs would include stormwater runoff quality control measures,



management for concrete waste, stormwater detention, watering for dust control, and construction of perimeter silt fences, as needed.

### **3.5. Construction Phase 2: Photovoltaic Panel System**

Construction of the O&M building and the 12 kV distribution line connection (including relocation of existing distribution line(s)) would be part of the initial solar facility development in tandem with the beginning of PV module construction. The construction activities associated with the distribution line would be similar to the medium voltage collector lines described below. Dismantling and removal of existing SCE distribution line for relocation would be similar to the process described for decommissioning. The poles and conductor would be disposed of as described in Section 3.12 (Waste Generation). The site of the O&M building would be cleared and graded, followed by installation of a concrete foundation.

All or a portion of the PV panel arrays may be pre-assembled in a fabrication assembly plant located on site. The structures supporting the PV module arrays would consist of steel piles (e.g., cylindrical pipes, H beams, or similar) driven into the soil using pneumatic techniques, similar to a hydraulic rock hammer attachment on the boom of a rubber-tired backhoe excavator. The piles typically are spaced 10 feet apart in the north-south direction and 22 feet apart in the east-west direction. For a single-axis tracking system, piles typically would be installed to a reveal height of approximately 4 to 6 feet above grade, while a fixed-tilt system the reveal height would vary between 3 to 6 feet above grade based on the racking configuration specified in the final design. For single axis tracking systems, following pile installation the associated motors, torque tubes, and drivelines (if applicable) would be placed and secured. Some designs allow for PV panels to be secured directly to the torque tubes using appropriate panel clamps. For some single-axis tracking systems and for all fixed-tilt systems, a galvanized metal racking system, which secures the PV panels to the installed foundations, would be field-assembled and attached according to the manufacturer's guidelines.

### **3.6. Construction Phase 3: Inverters, Transformers, Substation and Electrical Collector System, and BESS**

Direct current (DC) lines would be installed in conduits. The lines would be collected and combined and routed to the inverters to be converted to alternating current (AC) and stepped up to 34.5 kV via a pad mount transformer. Within the arrays this wiring would typically be hung from the racking equipment. Final sections would be connected to the inverters via an underground stub. Trenches for the collector lines would be run from the inverters to the onsite project substation.

Electrical inverters would be placed on steel skids or concrete pads, elevated as necessary with steel piles to allow for runoff to flow beneath the inverter structures. Commissioning of equipment would include testing, calibration of equipment, and troubleshooting. The substation equipment, inverters, collector system, and PV array systems would be tested prior to commencement of commercial operations. Upon completion of successful testing, the equipment would be energized.

Medium-voltage (34.5 kV) cabling from the inverters to the 34.5 kV/500 kV substation would be installed either underground, or overhead along panel strings in a CAB<sup>7</sup> system to avoid the need for underground cabling and trenching. At the combiner box, cables would be combined and routed overhead on wood poles roughly 30 to 50 feet high, depending on voltage.

Underground cables would be installed using direct bury equipment and/or ordinary trenching techniques, which typically include a rubber-tired backhoe excavator or trencher. An underground 34.5 kV line

---

<sup>7</sup> Cambria Association for the Blind and Handicapped produces overhead cable management systems comprised of cable trays, hooks, and other devices. The sale of CAB Products helps support its services to persons with disabilities.

would likely be buried at a minimum of 36 inches below grade but could go as deep as 6 feet and include horizontal drilling to avoid environmental resources. Shields or trench shoring would be temporarily installed for safety to brace the walls of the trench, if required based on the trench depth. After the excavation, cable rated for direct burial would be installed in the trench, and the excavated soil would be used to fill the trench and compress to 90 to 95 percent maximum dry density or in accordance with final engineering.

For any overhead 34.5 kV line, pole foundations would be excavated to an average depth of approximately 10 feet. Installation would consist of the following basic steps:

- Deliver new pole to installation site.
- Auger new hole using line truck attachment to a depth of up to 35 feet and include concrete supports depending on final engineering.
- Pour concrete foundation.
- Install bottom pole section by line truck, crane, or helicopter; and
- Install top pole section(s) by line truck, crane, or helicopter, if required.

Once poles are erected, the 34.5 kV conductor will be strung generally using a wire truck, crane and/or helicopter, splicing rig and puller from conductor pull and tension sites at the end of the power line. Each conductor will be pulled into place at a pre-calculated sag and then tension-clamped to the end of each insulator using sag cat and static truck/tensioner equipment. The sheaves and vibration dampers and accessories will be removed once installation is complete.

Substation areas would be excavated for the transformer equipment and control building foundation and oil containment area. The site area for the substation would be graded and compacted to approximately level grade. Foundations for the substation would be formed with plywood and reinforced with structural rebar. Concrete pads would be constructed as foundations for substation equipment, and the remaining area would be graveled. Concrete for foundations would be brought on-site from a batching plant in Blythe or would be produced by a portable batch plant on site as necessary.

The energy storage facility must be nearly level; therefore, the proposed BESS area would be cleared and graded. Site preparation also would include construction of drainage components to capture and direct stormwater flow around the BESS facility. Once the concrete foundations are in place for the BESS, the batteries, inverters, and other electrical equipment would be mounted and installed. Equipment would be delivered to the site on trucks.

### **3.7. 500 kV Gen-tie Line Construction**

The Project gen-tie line would be located within a 175-foot ROW, and would be primarily overhead, but undergrounding could be an option based on design constraints, existing utilities, and resources. The overhead gen-tie line structure foundations would be excavated to a depth of 45 feet or more and include concrete supports depending on final engineering. Gen-tie structures would be on average 120 feet tall but could be as tall as 199 feet where the proposed gen-tie line would cross above existing transmission lines and would be composed of monopole steel structures. A 3-phase 500-kV bundled set of conductors would be strung along the structures, and the line would be equipped with a ground wire and a telecommunications fiber-optic cable. Helicopters would be used to support overhead construction. Drones may also be used to support gen-tie and medium voltage collector line construction, as described in Section 4.3 (Drone Use).

During stringing of the conductor, pull and tensioning and temporary work areas may be required outside of the 175-foot ROW. The temporary disturbance area for each structure is 200 feet by 200 feet on the generally flat terrain of the Project area. The average size of pull and tension sites is 600 feet long by 200

feet wide; however, angle poles sites can increase to 1,000 feet by 200 feet. Foundation sizes (permanent disturbance) would be 30 to 40 feet in diameter depending on topography.

The Applicant would also perform any required upgrades to the Oberon Substation during this time.

### **3.7.1. Helicopter Use**

Helicopters would likely be used for wire stringing activities including hanging travelers, pulling conductor and optical ground wire (OPGW), dead-end activities, and the installation of bird diverters for the gen-tie line. There would be one Helicopter Landing Zone (HLZ), likely located within a disturbed area of the Project site, such as in the project substation laydown yard. A water truck would be onsite to water the HLZ prior to helicopter activities to prevent fugitive dust from rotor wash. Helicopter refueling will be done within the HLZ from a construction vehicle equipped as a fuel truck. Refueling may also occur at the Desert Center Airport or another regional airport, where the helicopter may be hangered overnight, before and/or after each day the helicopter is utilized. While the helicopter may land briefly within approved, existing disturbance areas on the gen-tie line to pick up equipment, materials, or personnel, no helicopter refueling will occur on BLM-administered land. Helicopter activities would occur over a temporary period within the proposed 20-month construction of the Project and would occur within the typical construction hours Monday through Friday 7:00am to 7:00pm. It is estimated that helicopters would be used for up to 200 hours over approximately 40 days. The helicopter activities would reduce ground disturbance by eliminating certain on-the-ground equipment that are typically used for overhead gen-tie line construction, including cranes, backhoe, and trucks. Helicopter use would also reduce the total duration of gen-tie construction by approximately 10 to 15 days. A full-time avian monitor would be onsite for the full duration of helicopter activities to specifically monitor helicopter activities.

All helicopter operations would be in accordance with a County and BLM approved Helicopter Use Plan, and all aircraft, pilots, linemen, and mechanics would be in full compliance with applicable Federal Aviation Administration (FAA) requirements and standards.

### **3.8. Construction Access, Equipment and Traffic**

All equipment and materials for the Project's construction would be delivered by flatbed trailers and trucks. Most truck traffic would occur on designated truck routes and major streets. Project components would be assembled on-site. Traffic congestion resulting from construction activities would be temporary and could occur along area roadways as workers commute and materials move to and from the Project site. Helicopters and drones could be used to support construction activities and designated landing and refueling zones would be established, as well as an approved Flight Operations Plan (POD Appendix Z). Materials deliveries during construction would travel up to 150 miles one way from sources to the Project site.

During construction, an average of 320 workers per day would commute to the Project site with a maximum of 530 workers during peak construction. In addition, up to 60 roundtrips per day would be required to deliver materials and equipment to the Project site.

Water for construction-related dust control and operations would be obtained from up to 2 on-site or off-site groundwater wells.

Flagging operations at site access points may be implemented during construction if/when traffic control needs are indicated through either monitoring traffic operations during construction or determined to be required during construction stage planning.

### **3.9. Post-Construction Cleanup**

Construction sites would be kept in an orderly condition throughout the construction period by using approved enclosed refuse containers. All refuse and trash would be removed from the sites and disposed of in accordance with BLM regulations. No open burning of construction trash would occur. All vegetation that may interfere with equipment would be trimmed and removed using manual non-mechanical means or sprayed with an approved herbicide, as necessary.

### **3.10. Construction Site Stabilization, Restoration and Wildlife Monitoring**

Following the completion of major construction, temporarily disturbed areas would be revegetated pursuant to an approved Restoration Plan. The Plan would describe the Applicant's strategy to minimize adverse effects on native vegetation, soils, and habitat. Where necessary, native re-seeding or vertical mulching techniques to alleviate compaction would be used. However, it is anticipated that many species will regenerate post-construction due to preservation of desert vegetation during the construction phase.

At the conclusion of restoration activities, and if determined beneficial by USFWS, CDFW, and BLM biologists, any previously relocated plants and wildlife would be reintroduced to the Project site and monitored for safety and health.

### **3.11. Construction Water Requirements**

Water for construction needs and related dust control would be obtained from onsite or offsite groundwater wells. Water tanks would likely be set up by any groundwater wells and near the O&M building.

During the construction phase, it is anticipated that a total of up to 800 acre-feet would be used for dust suppression (including truck wheel washing) and other purposes during the 20-month construction timeframe. During construction, restroom facilities would be provided by portable units to be serviced by licensed providers.

### **3.12. Waste Generation**

Waste would be stored in a locked container within a fenced and secure temporary staging area. As there would be regulated hazardous materials onsite, storage procedures would be dictated by a Hazardous Materials Plan that would be developed prior to construction. Spill prevention measures and secondary containment would be implemented as part of the Project where warranted; however, strict compliance under 40 CFR 112 or Clean Water Act (CWA) Section 311 would not be required, because there would be no discharges to waters of the U.S. (i.e., navigable waterways or shorelines).

Trucks and construction vehicles would be serviced from off-site facilities. The use, storage, transport, and disposal of hazardous materials used in construction of the facility would be carried out in accordance with federal, state, and county regulations. No extremely hazardous substances (i.e., those governed pursuant to Title 40, Part 355 of the Code of Federal Regulations) are anticipated to be produced, used, stored, transported, or legally disposed of as a result of Project construction. Material Safety Data Sheets for all applicable materials present on-site would be made readily available to on-site personnel.

Construction materials would be sorted on-site throughout construction and transported to appropriate waste management facilities. Recyclable materials would be separated from non-recyclable items and stored until they could be transported to a designated recycling facility. Recycling would be in accordance

with application California state requirements.<sup>8</sup> Wooden construction waste (such as wood from wood pallets) would be sold, donated, recycled, or chipped and composted. Other compostable materials, such as vegetation, might also be composted off-site. Non-hazardous construction materials that cannot be reused or recycled would likely be disposed of at municipal county landfills. Hazardous waste and electronic waste would not be placed in a landfill, but rather would be transported to a hazardous waste handling facility (e.g., electronic-waste recycling). All contractors and workers would be educated about waste sorting, appropriate recycling storage areas, and how to reduce landfill waste.

### **3.13. Fire Safety During Construction**

Fire protection would be provided to limit risk of personnel injury, property loss, and possible disruption of the electricity generated by the project. Fire protection would include minimizing flammable materials in the solar field, such as vegetation.

A Fire Management and Prevention Plan would be prepared for construction, operation, and decommissioning of the facility. The plan would include measures to safeguard human life, preventing personnel injury, preserve property and minimize downtime due to fire or explosion. Of concern are fire-safe construction, including during any welding, reduction of ignition sources, control of fuel sources, availability of water, and proper maintenance of firefighting systems.

Vegetation would be cleared for construction of the drainage controls, including berms if needed. Construction of the project would involve preparation, installation, and testing of electrical components such as cables, inverters, wiring, modules, and a transformer. Wires would be buried at a minimum of 18 inches below grade, minimizing the potential for faulty wiring to ignite a fire. All electric inverters and the transformer would be constructed on concrete foundation structures or steel skids and tested prior to use to ensure safe operations and avoid fire risks. Prior to wire setup, work areas would be cleared of vegetation to reduce the risk of ignition from any vehicles or equipment. Small quantities of hazardous chemicals such as fuels and greases would be stored at the site during construction. Due to the remote location of the project site, if onsite fuel tanks are utilized for equipment refueling, they are assumed to be no larger than 1,000 gallons each and they would comply with all applicable regulations. All hazardous chemicals would be stored in appropriate containers in an enclosed and secured location with secondary containment to prevent leakages and accidental fires.

During construction, a fire suppression system may be placed in service if required by the County or BLM Fire. Fire extinguishers and other portable fire-fighting equipment would be available onsite, as well as additional water for use at the O&M facility. These fire extinguishers would be maintained in accordance with local and federal Occupational Safety and Health Administration (OSHA) requirements.

Locations of portable fire extinguishers would include, but not be limited to, office spaces, hot work areas, flammable storage areas, and mobile equipment such as work trucks and other vehicles. Fire-fighting equipment would be marked conspicuously and be accessible. Portable equipment would be routinely inspected, as required by local and federal laws, ordinances, regulations, and standards, and replaced immediately if defective or needing charge.

---

<sup>8</sup> As of January 1, 2020, CALGreen requires covered projects to recycle and/or salvage for reuse a minimum 65% of the nonhazardous construction and demolition waste or meet a local construction and demolition waste management ordinance, whichever is more stringent.

## 4. OPERATION AND MAINTENANCE OF THE FACILITY

Upon commissioning, the Project would enter the operations phase. The solar modules at the site would operate during daylight 7 days a week, 365 days a year. Operational activities at the Project site would include:

- Maintaining safe and reliable solar generation.
- Site security.
- Responding to automated electronic alerts based on monitored data, including actual versus expected tolerances for system output and other key performance metrics; and
- Communicating with customers, transmission system operators, and other entities involved in facility operations.

Site standby power would be provided by backup generator(s). The California Air Resources Board (CARB) requires stationary generator engines rated 50 brake-horsepower (bhp) (equivalent to 37 kW) or greater to obtain an air quality permit issued by the local air district. If backup generators for the substation are 50 MW or greater, then the Applicant would obtain necessary permits, such as from the California Energy Commission.

### 4.1. Site Maintenance

The project site maintenance program would be largely conducted during daytime hours. Equipment repairs could take place in the early morning or evening when the plant would be producing the least amount of energy. Key program elements would include maintenance activities originating from the on-site O&M facility.

Maintenance typically would include panel repairs; panel washing; maintenance of transformers, inverters, energy storage system, and other electrical equipment; road and fence repairs; and vegetation and pest management. The Applicant would recondition roads up to approximately once per year, such as after a heavy storm event that may cause destabilization or erosion.

Revegetation would be the primary strategy to control dust across the solar facility site. Soil binders would be used to control dust on roads and elsewhere on the solar facility site, as needed.

On-site vegetation would be managed to ensure access to all areas of the site, reduce fire risk, and to assist in screening project elements as needed. Onsite vegetation may be trimmed approximately once every three years, or as needed. For the first year, weed management and control in accordance with an approved Integrated Weed Management Plan would be performed quarterly.

Solar modules would be washed as needed (up to four times each year) using light utility vehicles with tow-behind water trailers to maintain optimal electricity production. No chemical agents would be used for module washing.

No heavy equipment would be used during normal operation. O&M vehicles would include trucks (pickup and flatbed), forklifts, and loaders for routine and unscheduled maintenance and water trucks and/or a light utility vehicle with a water trailer for solar panel washing. Large heavy-haul transport equipment may be brought to the solar facility infrequently for equipment repair or replacement. No helicopter use is proposed during routine operations although they may be used for emergency maintenance or repair activities.

Long-term maintenance schedules would be developed to arrange periodic maintenance and equipment replacement in accordance with manufacturer recommendations. Solar panels are warrantied for 35 years or longer and are expected to have a life of 50 or more years, with a degradation rate of 0.5 percent per year. Moving parts, such as motors and tracking module drive equipment, motorized circuit breakers and

disconnects, and inverter ventilation equipment, would be serviced on a regular basis, and unscheduled maintenance would be performed as necessary.

## **4.2. Operation and Maintenance Workforce**

During operation of the proposed Project, up to 10 permanent staff could be on the site at any one time for ongoing facility maintenance and repairs. Security personnel would be on-call. The staff would be sourced from nearby communities in Riverside County. The O&M building would house the security monitoring equipment, including security camera feeds for monitoring the project 24 hours per day.

## **4.3. Drone Use**

Drones would be used to perform annual thermal and visual inspections of the gen-tie line and overhead medium voltage collector line structures in accordance with an approved Flight Operations Plan. The maximum drone operation heights would be restricted to 300 feet, which is higher than the maximum height of the gen-tie line structures.

Annual visual inspections are required by NERC FAC-003-4 Transmission Vegetation Management and utilized for preventative maintenance to reduce risk of equipment malfunction or failure. Drone inspections will be performed once per year between September and November to avoid potential impacts to nesting native and migratory birds. A team of two Federal Aviation Administration (FAA) approved and Unmanned Aircraft System (UAS) certified pilots would drive a truck on gen-tie ROW access roads as close to the inspection sites as is safe and feasible, park on the road, and begin the inspection. The drones used will be battery-powered *Matrice 300 RTK* or *Matrice 200 series* drones or similar and will perform the inspections between approximately 76 to 300 feet above ground level (AGL). Operating hours for inspections would be between the hours of 10:00am and 3:00pm. The drone pilots will work in pairs with one flying and one spotting for safety. The use of drones for gen-tie infrastructure inspections would minimize the need for larger vehicles, such as bucket trucks, and no ground disturbance would occur during drone use.

## **4.4. O&M Water Requirements**

During the operations and maintenance phase, water would be required for panel washing and maintenance and for workforce facilities. Substation restroom facilities would be located adjacent to the O&M building. If the septic system is not self-contained, an associated leach field would be required. The leach field would be permitted by Riverside County and would not be located within 0.25 mile of any drinking water well. For a 750-gallon septic facility, the leach field would consist of two compartments each 20 feet long, 2 feet high, and 4 feet wide with 10 feet of separation between the compartments.

During operation, the solar array portion of the project would require the use of a total of approximately 50 acre-feet annually for panel washing (which would occur up to four times per year) and other uses. No wastewater would be generated during panel washing as water would be absorbed into the surrounding soil or would evaporate. Water would be obtained from an onsite or nearby groundwater well.

## **4.5. Fire Safety During Operation**

Solar arrays and PV modules are fire-resistant, as they are constructed largely of steel, glass, aluminum, or components housed within steel enclosures. As the tops and sides of the panels are constructed from glass and aluminum, PV modules are not vulnerable to ignition from firebrands from wildland fires. In a wildfire situation, the panels would be rotated and stowed in a panel-up position. The rotation of the

tracker rows would be controlled remotely via a wireless local area network. All trackers could be rotated simultaneously in a hazard situation.

The BESS would comply with the current California Fire Code (CFC), which governs the code requirements to minimize the risk of fire and life safety hazards specific to battery energy storage systems used for load shedding, load sharing and other grid services (Chapter 12 Section 1206 of the 2019 CFC). In accordance with the CFC, the battery enclosure and the site installation design are all required to be approved by the State Fire Marshal. If applicable, the BESS would be certified to UL 9540, the standard associated with control, protection, power conversion, communication, controlling the system environment, air, fire detection and suppression system related to the functioning of the energy storage system. The battery would be tested to UL 9540A, a test method intended to document the fire characteristics associated with thermal event or fire and would confirm that the system will self-extinguish without active fire-fighting measures. The system would be designed, such that, during a fire event, the results of the UL 9540A test would show that any internal fire is contained within the enclosure and not spread to the other parts of the facility. The results of this test are used to inform facility safety system design and emergency response plans which would be shared with first responders. If applicable, the system would use a chemical agent suppressant-based system to detect and suppress fires. If smoke or heat were detected, or if the system were manually triggered, an alarm would sound, horn strobes would flash, and the system would release suppressant, typically FM-200, NOVEC 1230 or a similar clean agent<sup>9</sup> from pressurized storage cylinders. However, final safety design would follow applicable standards and would be specific to the battery technology chosen, including, but not limited to, National Fire Protection Association 855 (standard for the Installation of Stationary Energy Storage Systems) and Section 1206 of the California Fire Code. In addition, a 10,000-gallon water tank is anticipated for each BESS unit/area.

During O&M activities, standard defensible space requirements would be maintained surrounding any welding or digging operations. Fire safety and suppression measures, such as smoke detectors and extinguishers, would be installed and available at the O&M facility, if required by the County and/or BLM.

As described above, a Fire Management and Prevention Plan will be prepared in coordination with the County, BLM Fire or other emergency response organizations to identify the fire hazards and response scenarios that may be involved with operating the solar facility and BESS. This would include information on response to accidents involving downed power lines or accidents involving damage to solar arrays and facilities.

#### **4.6. Wildlife-Friendly Fencing**

Applicant may elect to utilize wildlife-friendly fencing on portions of the proposed facility based on its success at the Oberon Project. If wildlife-friendly fencing is implemented, after vegetation is substantially reestablished, temporary desert tortoise exclusion fencing may be removed after construction. If wildlife-friendly fencing is implemented, it would likely be located in the small, northwestern portion of the solar facility that overlaps with the Pinto Wash Linkage and/or areas adjacent to desert dry wash woodland that provide higher value wildlife habitat.

This would allow desert tortoise and other wildlife passage through portions of the project site for the life of the project. In areas where wildlife-friendly fencing is implemented, the security fence would leave a 6- to 8-inch gap between the lower fence margin (rail or mesh) and the ground. The bottom of the fence fabric (chain-link or similar material) would be wrapped upward so that no sharp edges are exposed along the lower fence margin. O&M safety practices, including worker training and biological

---

<sup>9</sup> Clean agents, including inert gases, are commonly used to suppress fires in machinery and electrical equipment, including occupied spaces, because they do not damage components and are considered safe for people and the environment.



monitoring of nesting, burrowing, or denning wildlife, would be implemented to maximize long-term safety of desert tortoises and other wildlife present at the site.

## **5. TERMINATION AND REHABILITATION**

The facility's equipment has a useful life of 30 to 50 years. At the end of the initial power purchase agreement's contract term of approximately 10 to 25 years, the Project would still be able to generate power. At that time, the facility would likely be optimized to increase the plant's efficiency by swapping out inverters for more efficient units, and potentially swapping out some of the facility's modules. Ground disturbing work would not be necessary for optimization activities. The project would be offline for several weeks or months during optimization activities but would subsequently continue delivering electricity to the wholesale market for many decades. As necessary, CUP/PUP and ROW renewals would be sought from the County and BLM, respectively. Long-term operations would be the same as described above.

At the end of the Project's useful life, the solar arrays and gen-tie line would be decommissioned and dismantled per an agency approved Closure and Decommissioning Plan. It is assumed that decommissioning would take approximately 20 months, similar to the construction duration, and would likewise use up to 1,000 AF for dust suppression (including truck wheel washing) and other purposes during the 20-month period.

Upon ultimate decommissioning, a majority of project components will be suitable for recycling or reuse, and project decommissioning would be designed to optimize such salvage as circumstances allow and in compliance with all local, State, and federal laws and regulations in effect at the time of decommissioning. Following removal of the above-ground and buried project components as required in the Closure and Decommissioning Plan, the site would be restored to its pre-solar facility conditions, or such condition as appropriate in accordance with County and BLM policies at the time of decommissioning.

Decommissioning activities would require similar equipment and workforce as construction but would be substantially less intense. The following activities would be involved:

- Dismantling and removal of all above-ground equipment (solar panels, track units, transformers, inverters, substation, O&M buildings, switchyard, distribution lines, etc.)
- Excavation and removal of all above-ground cables
- Removal of solar panel posts
- Removal of primary roads (aggregate-based)
- Break-up and removal of concrete pads and foundations
- Removal of septic system and leach field
- Removal of 34.5 kV collector lines
- Dismantling of gen-tie line
- Scarification of compacted areas

The panels could be sold into a secondary solar PV panel market, if available. The majority of the components of the solar installation are made of materials that can be readily recycled. If the panels can no longer be used in a solar array, the silicon can be recovered, the aluminum resold, and the glass recycled. Other components of the solar installation, such as the tracker structures and mechanical assemblies, can be recycled, as they are made from galvanized steel. Equipment such as drive controllers, inverters, transformers, and switchgear can be either reused or their components recycled. The equipment pads are made from concrete, which can be crushed and recycled. Underground conduit and wire can be removed by uncovering trenches, removing the conduit and wire, and backfilling. The electrical wiring is made from copper and/or aluminum and can be reused or recycled, as well. It is estimated that 100 percent of copper

components will be recycled and approximately 50 percent of aluminum and other components would be recycled.

Decommissioning of the aboveground portion of the gen-tie, overhead medium voltage collector lines, and distribution lines consists of removal of the overhead conductors and removal of poles (risers). All steel would be recycled, and the overhead structure foundations removed to a depth of at least 2 feet below the ground surface. Aluminum from overhead conductors would be recycled. Procedures would be designed to ensure public health and safety, environmental protection, and compliance with all applicable laws, ordinances, regulations, and standards.

## 6. ENVIRONMENTAL CONSIDERATIONS

### 6.1. Environmental Resource Surveys & Studies

#### 6.1.1. Biological Resources

As presented in Table 4, a desktop habitat assessment was conducted in 2021 to inform the biological surveys. Biological resource field surveys were performed in fall 2021 and spring 2022, along with a jurisdictional delineation. Optional surveys will be conducted dependent upon habitat conditions and monsoonal rains. The biological resources survey approach is summarized in Table 4 and is reflected in the Biological Resources Technical Report (POD Appendix G).

**Table 4. Easley Renewable Energy Project – Biological Resources Survey Approach**

Season	Required Survey	Optional Surveys
<b>Desktop 2021</b>	Habitat Assessment to inform type of surveys recommended and if suitable habitat exists	
<b>Fall 2021</b>	Combo Wildlife and Plant Survey – search for kit fox, badger, bat sign, Mojave fringe-toed lizard, desert tortoise, fall plants. 10-m survey	
<b>Winter 2021/2022</b>	Jurisdictional Delineations	
<b>Spring 2022</b>	Combo BUOW #1, Avian & Plant Survey – search for spring plants, BUOW, avian counts. Record any sensitive wildlife species observations or sign not found in previous fall surveys. 20-m survey in previously surveyed areas and 10-m survey in new survey areas. 150-m buffer survey at 20-m (complete before April 15)  BUOW #2-4 surveys – check burrows for additional BUOW sign (April 15-July 15)	If suitable habitat occurs on the Project site for elf owls and gila woodpeckers, then a survey will be conducted.
<b>Summer 2022</b>		Couch's spadefoot survey, only if sufficient monsoonal rains occur.
<b>Winter 2022</b>	Biological Resources Technical Report	

#### 6.1.2. Cultural and Paleontological Resources

A Class I record search and draft Cultural Resources Work Plan was submitted to BLM's Archaeologist to support field work authorization for the cultural resource surveys. Cultural resources surveys were performed by Chronicle Heritage in March and April 2023. The Class III and Indirect Effects Report package was sent by BLM to the Tribal Consulting Parties and State Historic Preservation Officer (SHPO) for review in March 2024. Following the Tribal Consulting Parties and SHPO reviews, BLM will prepare its

Determination of Eligibility and Findings of Effects for tribal notification and SHPO concurrence. A paleontological potential fossil yield classification (PFYC) was prepared in summer 2022, with field surveys performed in March and April 2023 following BLM review fieldwork authorization. A Paleontological Resources Survey Report was prepared by Chronicle Heritage and approved by BLM in September 2023.

### 6.1.3. Additional Studies

Additional field and desktop technical studies have been prepared in consultation with BLM's interdisciplinary team (IDT) throughout 2022 and 2023, including geotechnical, hydrologic, and other studies to identify, minimize, and mitigate land use conflicts.

## 6.2. Summary of Desktop Habitat Assessment

A desktop habitat assessment was conducted to assess potential suitable habitat for sensitive and special status species in the Project area. The results are summarized below and have been field verified and detailed in the Biological Resources Technical Report (POD Appendix G).

### 6.2.1. Vegetation Communities

The dominant communities in the Project area identified in the desktop review are:

**Creosote Bush Scrub.** This is the dominant vegetation community with creosote bush (*Larrea tridentata*) as the dominant shrub canopy. This includes the creosote bush, creosote bush-burro weed, and creosote-burro bush vegetation alliances. This vegetation community is dominant in a majority of all the parcels.

**Desert Dry Wash Woodland.** This is considered a sensitive vegetation community and consists of blue palo verde (*Parkinsonia florida*)-ironwood (*Olneya tesota*) woodland alliance with both trees as co-dominants in the tree or tall shrub canopy and includes the honey mesquite (*Prosopis glandulosa*) woodland alliance where honey mesquite is the dominant tree or tall shrub canopy. Desert dry wash woodland is found in ribbons in the Project area. As discussed in Section 6.3 (Conformance with Land Use Plans and DRECP CMAs), the Easley Project will fully comply with all applicable DRECP CMAs on BLM-administered land and private land, which includes avoidance of desert dry wash woodland habitat with a 200-foot buffer, except for minor incursions for linear features or where there is existing intervening infrastructure on private lands (CMA LUPA-BIO-RIPWET-1).

**Desert Pavement.** The term desert pavement is primarily descriptive of soil and substrate conditions, rather than vegetation. It has a state rarity rank of S4 (CDFW 2021) and is often synonymous with devil's spineflower (*Chorizanthe rigida*)-hairy desert sunflower (*Geraea canescens*) desert pavement sparsely vegetated alliance. This vegetation community occurs in small patches. In accordance with CMA LUPA-SW-9, desert pavement has been mapped within the Project site and the extent that the Project could create erosional or ecological impacts will be evaluated in the NEPA document. Implementation of dust control and soil and water resources mitigation measures and compliance with the Project-specific Stormwater Pollution Prevention Plan (SWPPP) would reduce erosion impacts related to disturbance of desert pavement. Biological resources mitigation will require compensation for habitat impacts including ensuring that the habitat value of the compensation lands is comparable to the impacts.

The Project site also consists of several previously developed areas that include deciduous orchards/vineyards, fallow agriculture, barren cropland, and small patches of urban areas.

### 6.2.2. Special Status Species

**Sensitive Plants.** Two special status plant species, Emory's crucifixion thorn (*Castela emoryi*) and desert unicorn plant (*Proboscidea althaeifolia*), were identified as having a high potential for occurrence due to previous documented occurrences and suitable habitat on the Project site.

**Sensitive Wildlife.** Seven special status wildlife species were identified to have some potential for occurrence in the surrounding Project area (CDFW 2021). Burrowing owl (*Athene cunicularia*) has a high potential to occur due to suitable habitat and numerous occurrences nearby. Desert tortoise only has a moderate potential for occurrence with desert tortoise predicted occupancy only higher in the southernmost portions of the Project site where previous records and more suitable habitat occurs. Avian species such as LeConte's thrasher (*Toxostoma lecontei*) and prairie falcon (*Falco mexicanus*) have a moderate potential for occurrence since there is suitable foraging habitat, but no nesting habitat for prairie falcons.

Habitat for nesting birds is present throughout the Project site, particularly in the desert dry wash woodland areas.

### 6.3. Conformance with Land Use Plans and DRECP CMAs

The Easley Project is located on BLM-administered lands that are designated as DFA by the DRECP LUPA. The DRECP amended the California Desert Conservation Area (CDCA) Plan to allow for development of solar energy generation and appurtenant facilities on public lands in this specific area as part of a DFA. The proposed solar facility is not located within any ACECs (Areas of Critical Environmental Concern) or designated recreational areas. The Chuckwalla ACEC and Chuckwalla Special Recreation Management Area (SRMA) are located south of I-10 in the area around the Red Bluff Substation.

The Easley Project will fully comply with all applicable DRECP CMAs on BLM-administered land, as detailed in the consistency analysis included as POD Appendix C (Applicability of DRECP CMAs). The Applicant has also voluntarily committed to complying with the DRECP CMAs on private lands within the Project area as well.

A portion of the Easley 500 kV gen-tie line would be sited within the Section 368 Federal Energy Corridor 30-52, as established by the West-wide Energy Corridor (WVEC) Programmatic EIS and ROD (2009), which amended BLM land use plans to establish utility corridors for electrical transmission and other utility infrastructure. Corridor 30-52 was not identified as a corridor of concern. POD Appendix D, ROW Corridor Conflict Analysis, will be prepared during the NEPA process to demonstrate that the Project would comply with the WVEC ROD.

The Northern and Eastern Colorado Desert Coordinated Management (NECO) Plan also amended the CDCA Plan and includes management of travel routes within the project area. The Easley Project is anticipated to close BLM open routes but would not preclude travel through the area because there are multiple redundant routes in the area.

### 6.4. Other ROW Holders

The Project would be designed to avoid, be compatible with, or assist in optimally relocating existing ROWs. From the Oberon onsite substation, the power generated by the Easley Project would be transmitted to the SCE Red Bluff Substation via the Oberon 500 kV gen-tie line.

## 6.5. Spill Prevention and Contingency Plan

During construction, all construction pickup trucks would be equipped with spill kits to clean up any accidental spills of fuels or lubricants. Should a major spill occur on BLM land, the Field Office would be notified within 24 hours. All incidents would be properly recorded and addressed in accordance with BLM requirements.

## 6.6. Pesticide Use Proposal

Based on the aridity of the Project area, the overall low densities of vegetation present, and on-site vegetation management during O&M (see Section 6.2 above), it is not likely that vegetation would encroach upon structures so that access would become impaired. However, noxious weeds and other nonnative invasive plant species could create a fire hazard if allowed to become established, and invasive weeds could also become problematic from an ecological perspective. Therefore, weed control activities would be implemented within the Project limits.

Weed control activities would include both mechanical and targeted herbicide control methods, as necessary. Mechanical control activities would include hand trimming with a chainsaw outside of the desert tortoise active season. Non-motorized trimmers would be used in the vicinity of known sensitive wildlife.

Herbicides may be necessary to control the spread of invasive weeds following construction as part of an integrated pest management strategy. On BLM-administered land, herbicide control would involve the targeted use of BLM-approved herbicides to control weed populations when manual control methods are not successful in managing the spread of invasive plants, but only as reviewed and approved by USFWS and BLM biologists. All weed control using herbicides and adjuvants would be conducted with chemicals approved by BLM in California (including manufacturer application rates and use). The process for treatments would be characterized in an Integrated Weed Management Plan (POD Appendix N) followed by a Pesticide Use Proposal (PUP) for specific chemical treatments, both approved by the BLM. In addition, the Project would comply with DRECP CMA LUPA-BIO-11. 5 below identifies the herbicides proposed for use on the Project site, all of which are listed in the current List of BLM-Approved Herbicides. Table 6 identifies the maximum and prescribed rates of herbicide application. Herbicides would be applied using backpack sprayers and foliar application. Aerial spraying and truck-mounted spray rigs would not be utilized.

**Table 5. Herbicides Proposed for Easley Renewable Energy Project**

Active Ingredient	Trade name	Manufacturer	EPA Reg. #	Formulation
<b>Herbicides</b>				
Chlorsulfuron	Telar XP	DuPont	352-654	Extruded Pellet, Dry flowable
Clopyralid	Transline	Dow	62719-259	Liquid
Glyphosate	Roundup Custom	Monsanto	524-343	Liquid
	Roundup PROMax	Monsanto	524-579	Liquid
Imazapyr	Polaris	Nu Farm	228-534/536	Liquid
Triclopyr	Garlon4	Dow AgroSciences	62719-40	Liquid
<b>Adjuvants</b>				
Non-ionic surfactant (NIS)	Activator 90	Loveland	CA#34704-50034	Liquid
Modified Seed Oil	MSO	Loveland	CA#34704-50067	Liquid

**Table 6. Maximum and Prescribed Rates of Herbicide Application in the Project Area**

Herbicide <sup>1</sup>	Maximum Application <sup>2</sup> Rate/Acre/Year		Prescribed Application <sup>3</sup> Rate/Acre	
	Product	AI/AE	Product	AI/AE
Round-Up Custom	256 oz. (2 gallons)	8.0 lbs. a.e.	3 quarts	2 lbs. a.e.
Roundup PROMax	(224 oz.) 1.75 gallons		2.67 quarts	
Transline	1.33 pints	0.5 lb. a.e.	15 oz.	0.35 lb. a.e.
Polaris <sup>4</sup>	6 pints	1.5 lbs. a.e.	1.33 pints	0.3 lb. a.e.
Telar XP	3.0 oz.	0.141 oz. a.i.	1 oz.	0.047 oz. a.i.
Triclopyr	2.0 gal/ac	8.0 lbs. a.e.	0.5 gal/ac	2.0 lbs. a.e./ac

MSO,<sup>5</sup> when used, will be used at a concentration of 1% volume/volume in each tank mixture.

Activator 90, when used, will be used at a concentration of 0.5% v/v in each tank mixture.

- 1 - Choice of prescription will depend on site constraints, target species, and time of year. Treatments will be directed foliar. Over a 3- to 5-year period, as much as 915 acres may be treated. This represents all acreage in the Proposed Action area on Bureau of Land Management lands (183 acres) being treated each year for up to 5 years.
  - 2 - Maximum total application amount per year based on active ingredient.
  - 3 - Maximum amount per application event; multiple applications may occur in a year, if needed to control weeds, until maximum annual application amount is reached.
  - 4 - Polaris (Imazapyr) will only be used in disturbed habitat.
  - 5 - Either "MSO Concentrate" from Loveland or "Hasten" from Wilbur Ellis is recommended.
- a.e Acid Equivalent  
a.i Active Ingredient  
ac Acre  
gal Gallon  
lbs Pounds

See below for additional details on herbicide application:

- Application dates would be intended to cover the entire period of the ROW grant, beginning during the construction phase, if needed. Subsequent PUP applications would be submitted to BLM for approval, every 3 years or as determined by BLM, over the Project lifetime.
- Treatments would be as needed, upon emergence of the target weed species during the growing season. Growing seasons are typically during the winter months (November to April) but may include the summer months (July to September) if summer rainfall is sufficient to germinate target weed species during those months.
- The total number of applications is dependent upon the extent of invasive plants within the Project Area, but it is expected that early- and late-season emergence of invasive plant species would require two or more treatment periods. Treatment periods are defined as one round of treatment coverage for all sites.
- The primary invasive plant species to be targeted include Mediterranean grass, Saharan mustard, Russian thistle, and saltcedar. If additional invasive plant species are identified during monitoring, these would also be targeted for control efforts.
- Crew members who conduct weed treatment in the Project area would have extensive experience working around sensitive habitats and species. In addition, crews would be monitored by a restoration ecologist. Weed control would be specifically applied to individual plants and not sprayed broadly across the Project area.

- Crews would work under the direct supervision of a licensed Certified Pesticide Applicator.
- Crews would adhere to strict application guidelines when applying herbicide during wind to minimize drift and chemical contact with non-target vegetation or wildlife. Herbicide application would be suspended if winds are in excess of 10 miles per hour, or if precipitation is occurring or imminent (predicted within the next 24 hours).
- A Pesticide Application Record (PAR) would be submitted to the BLM at least yearly, if not more regularly, as determined by BLM in the PUP.

On BLM-administered land, the Applicant would implement the Standard Operating Procedures (SOPs) associated with chemical control applications as well as applicable mitigation measures identified in the *2007 and 2016 Vegetation Treatments Using Herbicide on Bureau of Land Management Lands in 17 Western States Programmatic EISs*. Information Bulletin No. 2014-069 lists the currently approved herbicides for use on BLM lands.

## **7. APPLICANT PROPOSED MEASURES AND BEST MANAGEMENT PRACTICES**

- APM AES-1** To reduce operational visual impacts of the Project to the Community of Lake Tamarisk, the Project owner will apply a weathering coating (Natina or substantially similar) to the Project security fencing located closest to the Community. The coating would reduce the occurrence of reflectance, which would be visually distracting, and the typically earth-tone color of the coating would reduce the industrial character of the fencing and help it to blend more effectively with the surrounding landscape. The total length of fencing that will be coated is approximately one mile and may be contiguous or separate sections, depending on the final Project design and the location(s) of most visible security fencing.
- APM NOISE-1** Applicant will make best efforts to avoid or minimize use of any impact hammer for pile driving or other equipment similarly capable of producing disruptive noise during construction activities within a one-mile radius from the residential parcel on the northeast corner of the Lake Tamarisk Desert Resort community during the winter months of highest residency (November 1 to March 31). If based on the final construction schedule, use of such equipment is necessary within this geographic area during the aforementioned time period, the Applicant will make best efforts to avoid or minimize this construction activity prior to 7:00 am and after 6:00 pm. The Applicant will also avoid nighttime equipment deliveries between 10:00pm and 7:00am.

The Applicant also commits to the following best management practices (BMPs) during site preparation and construction. Additional BMPs identified in the Project's Fugitive Dust Control Plan would also be implemented during all grading and vegetation removal activities.

- Utilize 'Overland Travel' as much as possible instead of high-impact methods like disk and roll or grading.
- Assemble as much of the racking material as possible in laydown areas, which minimizes travel along panel rows.
- Designate primary travel routes every few rows between panel arrays to minimize disturbance along other rows. Focus disturbance to few primary travel paths to avoid zigzagging, which in the long run reduces other impacts.
- Ensure that there are well-trained construction monitors on site focused on ensuring that construction/vehicle trips impacts are minimized.

- Limit grading to specific areas – roads, substation, O&M facilities, laydown areas, some equipment pads, and in discrete areas within the arrays due to structural design limitations.
- Utilize smaller rubber-wheeled vehicles, lightweight skid steers, small cranes, tractors, and rubber-tired forklifts where possible to minimize soil disturbance.
- Keep soils out of drainages, preserve protective buffers alongside washes, and maintain hydrologic flow patterns within the site.
- If possible, bend and pin tortoise fencing instead of trenching it in, to minimize disturbance along the fence line.
- Incorporate propagule islands, patches of intact vegetation and soils that provide seeds and soil microbial propagules, to facilitate revegetation or recolonization of adjacent disturbed areas.
- Construct the project in phases, which reduces dust and allows areas to begin recovery sooner.
- Monitor vegetation recovery on site after construction by developing a Restoration Plan. Use benchmarks and required restoration measures (if much disturbance has taken place) to ensure adherence to appropriate Biological Opinion and to ensure sufficient plant growth after construction.

## **8. ALTERNATIVES CONSIDERED BY THE APPLICANT**

### **8.1. General Approach**

Private lands have been considered for solar development areas, but BLM-administered lands are generally preferred for siting a large-scale facility due to the relative simplicity of working with a single public landowner instead of many private landowners. Therefore, the majority of the lands within the Easley Project area are BLM-administered lands supplemented by less than 1,000 acres of private lands to enable greater solar PV capacity. In addition, BLM's mandate to manage lands for multiple uses is well suited to the Proponent's objectives for the Project. The site is also located within a DFA identified for solar development by the DRECP LUPA.

### **8.2. BLM Sites Eliminated from Further Consideration**

Initially, the Applicant's application area included DFA lands within the East Riverside DFA that would be located to the east of the current Project and Highway 177/Rice Road. These areas were eliminated from the Project footprint following biological resources surveys due to concerns with desert dry wash woodland, active sand transport and dune vegetation, Mojave fringe-toed lizard, and high sensitivity for cultural and tribal resources near the Palen Dry Lake. Difficulties with compliance with the DRECP CMAs would also trigger the need for a BLM Land Use Plan Amendment as part of project approval, which would create regulatory feasibility challenges. Parcels to the north of the Project area were also considered, but the Applicant was unable to obtain a necessary gen-tie line easement across private lands. A discussion of the Project evolution is included in Section 1.2.

Given recent solar permitting and development in the Desert Center area, no other developable DFA lands with readily available access to the SCE Red Bluff Substation are available in the Desert Center area.

### **8.3. Potential Alternatives to be Carried Forward**

As illustrated on Figure 2 (Project Area), the majority of the Easley 500 kV gen-tie line alignment would traverse the BLM approved Oberon Renewable Energy Project site. Depending on negotiations with landowners, environmental constraints, and project engineering, the Applicant may present a revised



panel layout and/or project substation location and alternative gen-tie line approach from the Easley Project site to the Oberon ROW. These alternatives would be developed during the NEPA process.

## 9. REPORTING, PLAN & OTHER INFORMATION REQUIREMENTS

As identified throughout this POD, various reports, plans, and other information will be prepared to support Project permitting, construction, operation and maintenance, and decommissioning activities. Many of these plans and other information are included in this POD as appendices; however, other reports and plans depend on survey and engineering efforts that have yet to be completed. Table 7 provides a summary of the various reports, plans, and other information, and their timing for submittal to BLM and other agencies for review and approval. As the various reports, plans, and other information get finalized, they will be provided to BLM as part of updated PODs.

**Table 7. Timing of Submittal for Required Reports, Plans, and Other Information**

Report, Plan or Other Information	Timing	Comments
Submitted to BLM		
Figures and Maps	Submitted as Part of POD	POD Appendix A
Right-of-Way Legal Description		POD Appendix B
Applicability of DRECP Conservation and Management Actions		POD Appendix C
Right-of-Way and Utility Conflict Analysis		POD Appendix D
Water Supply Assessment		POD Appendix P
Visual Analysis Report and Glare Assessment		POD Appendix Q
Transportation Impact Analysis		POD Appendix R
Air Quality Emissions Report		POD Appendix S
Health, Safety & Noise Plan		POD Appendix T
Dust Control Plan		POD Appendix U
Fire Management and Prevention Plan		POD Appendix V
Hazardous Materials Management Plan		POD Appendix W
Environmental Compliance and Monitoring Plan		POD Appendix X
Closure and Decommissioning, and Reclamation Plan		POD Appendix Y
Easley sUAS Flight Operations Plan		POD Appendix Z
Easley Helicopter Use Plan	POD Appendix AA	
Preliminary Hydrology Study	POD Appendix BB	
Biological & Hydrological Resource Surveys Required for Preparation (Draft Plans will be presented as part of the POD in the draft NEPA document. Plans will be finalized as part of the NEPA and CEQA processes.)		
Biological Resources Technical Report	Submitted as Part of POD	POD Appendix G
Jurisdictional Delineation		POD Appendix H
Desert Tortoise Protection and Translocation Plan		POD Appendix I
Raven Management Plan		POD Appendix J
Wildlife Protection and Relocation Plan		POD Appendix K
Vegetation Resource Management Plan		POD Appendix L
Bird and Bat Conservation Strategy		POD Appendix M
Integrated Weed Management Plan		POD Appendix N
Nesting Bird Management Plan		POD Appendix O
Cultural Resources Surveys Required for Preparation		

Report, Plan or Other Information	Timing	Comments
Cultural Resources Technical Report	Submitted as Part of POD E	POD Appendix E. Confidential documents; no public distribution. Reports and Plans will be finalized as part of the NEPA and CEQA processes, and SHPO review.
Cultural Resources Monitoring & Discovery Plan	Draft by Q2 2024, assuming concurrence on eligibility in Q1 2024	
Tribal Participation Plan for Monitoring		
Paleontological Resources Surveys Required for Preparation		
Paleontological Resources Technical Report	Submitted as Part of POD F	POD Appendix F. Confidential documents; no public distribution. Reports and Plans will be finalized as part of the NEPA and CEQA processes.
Paleontological Resources Monitoring & Mitigation Plan	Draft by Q4 2023	
Contractor Onboarding Required		
Grading Plan	Drafts after EPC onboarding; anticipated early to mid-2024	Contractor tasked with grading plan and SWPPP preparation. Contractor contacts required for ECCMP completion. Plans to be finalized prior to the start of construction.
SWPPP / Erosion & Sediment Control Plan		
Environmental Construction Compliance Monitoring Program (ECCMP)		
90% Engineering Required for Preparation		
Night Lighting Plan	Drafts by Q3 2024 assuming completion of 90% engineering mid-2024	Plans to be finalized prior to the start of construction.
Surface Treatment Plan		

Table 8 provides a summary of the various surveys required to inform the NEPA process and the status of each for the Easley project as of the date of this POD version.

**Table 8. Field Survey Status**

Survey	Timing
Wildlife and Plant Surveys	Completed Fall 2021/2022
Jurisdictional Delineation	Completed Winter 2021/Winter 2022
Rare Plant, Avian Surveys	Completed Spring 2022
Burrowing Owl Surveys	Completed Summer 2022
Class III Archaeological Surveys	Completed Spring 2023
Paleontological Surveys	Completed Spring 2023