

**REVISED FINAL PROGRAM
ENVIRONMENTAL IMPACT REPORT**

VOLUME I OF II

Soitec Solar Development Project

**Log No. 3910-120005 (ER); 3800 12-010 (GPA); Tierra Del Sol 3300 12-010 (MUP),
3600 12-005 (REZ), 3921 77-046-01 (AP); Rugged Solar 3300 12-007 (MUP)**

SCH No. 2012-121-018

Lead Agency:

**County of San Diego
Planning and Development Services
5510 Overland Avenue, 3rd Floor
San Diego, CA 92123**

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Project Proponent:

**~~Patrick Brown~~ Brison Ellinghaus
Soitec**

October 2015

This EIR is subject to Chapter 6.5 (commencing with Section 21178) of the Public Resources Code, which provides, among other things, that any judicial action challenging the certification of the EIR or the approval of the project described in the EIR is subject to the procedures set forth in Section 21178.2 of the Public Resources Code and must be filed with the court of appeal. A copy of Chapter 6.5 of the Public Resources Code is included in Appendix 1.0-2 to this EIR.

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
°C	degrees Celsius
°F	Degrees Fahrenheit
AB	Assembly Bill
AC	alternating current
ACEC	Areas of Critical Environmental Concern
ACOE	U.S. Army Corps of Engineers
ADT	average daily traffic
AED	automated external defibrillator
AF	acre feet
ALUCP	Airport Land Use Compatibility Plan
AMR	American Medical Response
amsl	above mean sea level
AOU	American Ornithologists' Union
APCD	Air Pollution Control District
APE	Areas of Potential Effect
APN	Assessor's Parcel Number
ASCE	American Society of Civil Engineers
AST	aboveground storage tank
AWM	Agriculture, Weights and Measures
BCC	Birds of Conservation Concern
bgs	below ground surface
BLM	Bureau of Land Management
BMPs	best management practices
BOS	Board of Supervisors
BRR	Biological Resources Report
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalARP	California Accidental Release Prevention
Cal EMA	California Emergency Management Agency
CalEPA	California Environmental Protection Agency
CalFire	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupation Health and Safety Administration
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CBP	U.S. Customs and Border Protection
CCR	California Code of Regulations

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFD	Community Facilities District
CFPP	Construction Fire Prevention Plan
CGS	California Geological Survey
CHHSLs	California Human Health Screening Levels
CIWMB	California Integrated Waste Management Board
CMP	Congestion Management Program
CMU	concrete masonry unit
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNF	Cleveland National Forest
CNPS	California Native Plant Society
CO ₂ E	carbon dioxide equivalent
CPA	community planning area
CPUC	California Public Utilities Commission
CPV	concentratorphotovoltaic
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSA	County Service Area
CSS	coastal sage scrub
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DC	direct current
DEH	Department of Environmental Health
DEH-HIRT	Department of Environmental Health-Hazardous Incident Response Team
DG	decomposed granite
DHS	Department of Health Services
DOC	Department of Conservation
DPDS	Department of Planning and Development Services
DPLU	Department of Planning and Land Use
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
DPW	Department of Public Works
DTSC	Department of Toxic Substances Control
DU	dwelling unit
DWR	Department of Water Resources
ECMSCP	East County Multiple Species Conservation Plan
EIR	Environmental Impact Report
EIS	environmental impact statement

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
EFZ	earthquake fault zone
EMF	electric and magnetic field
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FP	Fully Protected
FPP	Fire Protection Plan
FPPA	Farmland Protection Policy Act
FTA	Federal Transit Administration
GHG	greenhouse gas
GIS	geographic information systems
GMP	Groundwater Monitoring Plan
GPA	General Plan Amendment
gpd	gallons per day
gpm	gallons per minute
GPS	Global Positioning System
GWP	Global Warming Potential
HAP	hazardous air pollution
HFC	hydrofluorocarbon
HLP	Habitat Loss Permit
HMBP	hazardous materials business plan
HMD	Hazardous Materials Division
HMP	Habitat Management Plan
HVAC	heating, ventilation and air conditioning
Hz	hertz
I-8	Interstate 8
IAWP	Interim Ag Water Program
IFC	International Fire Code
JCSD	Jacumba Community Services District
kV	kilovolt
kW	kilowatt
kWh	kilowatt hour
LARA	Local Agricultural Resource Assessment
lb (lbs)	pound (pounds)
LCC	Land Capability Classification
LCFS	Low Carbon Fuel Standard
LEA	Local Enforcement Agency
L_{eq}	equivalent level
LID	Low Impact Development
LIDAR	light detecting and ranging

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
L _{max}	maximum sound level
L _{min}	minimum sound level
LOS	Level of Service
LOSWC	Live Oak Springs Water Company
L _v	velocity level
MCLs	maximum contaminant levels
MET	Meteorological
MLD	Most Likely Descendent
MMT	million metric tons
MMTCO ₂ E	million metric tons carbon dioxide equivalent
MPA	Major Pre-application
mpg	miles per gallon
MPO	metropolitan planning organization
MS4	Municipal Separate Storm Sewer System
MSCP	Multiple Species Conservation Program
MTCO ₂ E	metric tons carbon dioxide equivalent
MTS	Metropolitan Transit Service
MUP	Master Use Permit
MVA	megavolt amperes
MW	megawatt
MWD	Metropolitan Water District
NAAQS	National Ambient Air Quality Standards
NABA	North American Butterfly Association
NAHC	Native American Heritage Commission
NBMMRP	Nesting Bird Management, Monitoring and Reporting Program
NDAA	Natural Disaster Assistance Act
NESC	National Electrical Safety Code
NFIP	National Flood Insurance Program
NHTSA	National Highway Traffic Safety Administration
NML	Nesting Monitoring Log
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSLU	noise-sensitive land use
O&M	operation and maintenance
OEHHA	Office of Environmental Health Hazard Assessment
OHWM	ordinary high water mark
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
OWTS	On-Site wastewater Treatment System
PCA	Pest Control Advisor

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
PDF	project design feature
PDMWD	Padre Dam Municipal Water District
PFC	perfluorocarbon
PGA	peak ground acceleration
POD	Plan of Development
PPA	Power Purchasing Agreement
PPV	peak particle velocity
PRC	Public Resources Code
PRGs	Preliminary Remediation Goals
PSHA	probabilistic seismic hazard assessment
PVC	polyvinylchloride
PVMWC	Pine Valley Mutual Water Company
RAQS	Regional Air Quality Strategy
RCRA	Resource Conservation and Recovery Act
REL	reference exposure level
RFS	Renewable Fuel Standard
RMS	root mean square
ROW	right-of-way
RPO	Resource Protection Ordinance
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SAM	Site Assessment and Mitigation
SAMP	Special Area Management Plan
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCADA	supervisory control and data acquisition
SCIC	South Coastal Information Center
SD&AE	San Diego & Arizona Eastern Railroad
SD&SE	San Diego & Southeastern Railway
SDAB	San Diego Air Basin
SDAC	San Diego Archeological Center
SDAPCD	San Diego Air Pollution Control District
SDCFA	San Diego County Fire Authority
SDG&E	San Diego Gas and Electric
SDNHM	San Diego Natural History Museum
SDRFPD	San Diego Rural Fire Protection District
SDSU	San Diego State University
SI	Storie index
SIP	State Implementation Plan
SoDAR	sonic detecting and ranging
SPCC	Spill Prevention and Control Countermeasures
SRA	State Responsibility Area

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
SSC	Species of Special Concern
SWMP	Stormwater Management Plan
SWP	State Water Project
SWPL	Southwest Powerlink
SWPPP	Stormwater Pollution Prevention Program
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TDS	Total Dissolved Solids
TIF	Transportation Impact Fee
TIS	Traffic Impact Study
TM	Tentative Map
TMDL	Total Maximum Daily Load
TOC	top of casing
TPM	Tentative Parcel Map
UCCE	University of California Cooperative Extension
UDC	Unified Disaster Council
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
V	volt
VdB	vibration decibel
VOC	volatile organic compound
VMT	vehicle miles traveled
WDRs	waste discharge requirements
WL	Watch List

GLOSSARY OF TERMS

Batch Plant – Temporary facility to be located on the Rugged Solar Farm and used for the construction of the Tierra del Sol and Rugged solar farms. The 10-acre facility complex would consist of a mixing plant, areas for sand and gravel stockpiles, an access road, and truck load out and truck turnaround areas. The facility would be used for preparing and mixing the concrete used for the foundations for the trackers, inverter stations, transformers at the substations, the O&M buildings, and other project facilities.

Building Block – Groups of trackers within the solar farm which supply power to a single inverter station.

Bus – A strip or bar of copper, brass, or aluminum that conducts electricity within a switchboard, distribution board, substation, battery bank or other electric apparatus.

Duct Bank – An assembly of PVC cable conduits or ducts, which are usually encased in concrete in a trench and allow replacement of damaged cables or the addition of more power circuits without the re-excavation of a trench.

Inverter Station – Converts DC power from the solar module to AC power. Each inverter station houses a solid-state inverter, which changes the direct current (DC) power to alternating current (AC). The inverter stations would be constructed in an open configuration with a shade structure or placed within an enclosure. All inverter pads would accommodate up to three inverters and one transformer.

Module – Made up of a lens plate (Fresnel lens) and a base plate on which high-performance solar cells are mounted. The Fresnel lens focuses sunlight concentrated by a factor of 500 on the solar cells beneath.

SCADA System – The SCADA (supervisory control and data acquisition) system provides critical operating information (e.g., power production, equipment status and alarms, and meteorological information) to the power purchaser, project owners and investors, grid operator, and project operations teams, as well as facilitates production forecasting and other reporting requirements for project stakeholders. The SCADA system would use on-site sensors, which would maintain tracker orientation toward the sun during the day.

Solar Farm – A large scale concentrated photovoltaic system designed for the supply of merchant power into the electricity grid.

Substation – A part of an electrical generation, transmission, and distribution system that transforms voltage from high to low, or the reverse. Substations include transmission substations,

which connect two or more transmission lines; distribution substations, which transfer power from the transmission system to the distribution system of an area; collector substations, which steps up the voltage from a distributed generation project to a transmission voltage for the grid, as well as metering of the power flow.

Tierra del Sol Transmission Line (gen-tie) – An approximately 6-mile dual circuit 138kV transmission line that would deliver power from the private substation on the Tierra del Sol solar farm to 138kV bus at SDG&E’s Rebuilt Boulevard Substation.

Tracker – A concentrated photovoltaic (CPV) system that includes a module mounted on the tracking system, tracking unit and tracker control unit.