

7.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA Guidelines §15128 requires that an EIR contain a brief statement disclosing the reasons why various possible significant effects of the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site were found not to be significant and, therefore, would not be discussed in detail in the EIR/EA. The environmental issues not expected to have a significant impact as a result of the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site are Mineral Resources, Public Services, and Energy and Natural Gas. The Alternative 3-No Action/No Project Alternative would not involve any construction on the project site; therefore, there will be no effects on any of the following issue areas.

7.1 Mineral Resources

The solar energy facility portion of the project site is currently under agricultural production and is not utilized for mineral resource production. The proposed transmission line corridor and a portion of the access road are located on public lands within a designated utility corridor. No known mineral resources occur within the project site and the project site does not contain mapped mineral resources (USGS, 1983). As such, the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, Alternative 2-Reduced Solar Energy Facility Site, and Alternative 3-No Action/No Project Alternative would not adversely affect the availability of any known mineral resources within the project site. Thus, no significant impact under CEQA has been identified for this issue area.

7.2 Public Services

7.2.1 Fire and Emergency Medical

Imperial County Fire Department (ICFD) provides fire protection and emergency medical services to Imperial County in cooperation with incorporated cities and volunteer units in the unincorporated communities of Imperial County. Mutual aid agreements have been established with all cities in the County to address incidents requiring equipment and personnel beyond an individual fire department's capacity to respond. These agreements result in dispatch of the closest unit available to respond upon request for services. The County also provides the fire engines for this contractual service. Emergency transport is provided by Gold Cross Ambulance Service, under contract with the fire department. Fire departments from all jurisdictions within Imperial County have automatic mutual-aid agreements to provide additional fire response services when the primary responding stations cannot respond to an emergency. The nearest fire station to the site is located at 900 Grant Street in the City of Calexico (approximately 8 miles east of the project).

The Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site do not contain a residential component, and the operational occupancy is limited to a

few employees (four full-time and one security guard). As such, the impact to the service ability of the Imperial County Fire Department would be minimal. Fire prevention and suppression features are described in detail in Chapter 2 – Proposed Action and Alternatives of this EIR/EA. A perimeter fence would be installed around the site to prevent unwanted access. The facility will maintain the required volume of water required for fire fighting, based on the number and sizes of structures on the site. Specifically, one 20,000-gallon water tank, or two 10,000-gallon water tanks are proposed. This will be provided in a firewater storage tank. The firewater storage tank will be located within 150 feet of the operations and maintenance building.

Fire protection measures will include portable carbon dioxide (CO₂) fire extinguishers mounted outside inverter/electrical distribution containers on pads throughout the solar array. Additionally, fire protection for the solar array and the off-site transmission line will be provided by vegetation management programs.

The Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site would not require the addition of staff to the fire facility. As such, the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site would not necessitate a fire facility expansion, the construction of which could cause significant environmental impacts. Therefore, the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site would not result in a significant impact under CEQA to the environment as a result of the construction or expansion of fire facilities.

7.2.2 Police

The Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site site's are located within the service area of the Imperial County Sheriff's Department, which is headquartered in southern El Centro. The project site is located within the service area of the South County Patrol Division of the Imperial County Sheriff's Department.

Due to the large patrol area of the nearest deputies, emergency response times can vary. Depending on the location of the deputy, response times can range from approximately five minutes to one hour, however, emergency calls involving public safety would take priority.

Land development inevitably results in a higher demand being placed on police services due to an increase in calls for service. Due to many complicated factors such as location in relation to surrounding land uses, it is not until the new development is in place and begins to generate calls for police service it is possible to more accurately predict the level of demand that will be placed on the Sheriff's Department.

The Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site would not result in a substantial addition of residents to the area of responsibility of the Imperial County Sheriff's Department. The project anticipates a total of four full-time employees and one security guard. Various safety and security equipment will be installed to prevent unwanted access. The solar facility and support facilities perimeter would be secured with security fencing. Due to its proximity to the border, the fencing along the southwestern portion of the project site would be reinforced. Controlled

access gates would be located at the site entrances. Additionally, the BLM, County Fire, and Border Patrol would be granted access to all locked gates. A small gatehouse would be constructed at the main gate to the project for times when the gate needs to be staffed to control access. Lastly, cameras would be utilized throughout the facility and equipped with remote monitoring capabilities to deter vandalism. With these features installed onsite, the security on the solar facility would be adequate and would not require the addition of staff to the police facility. As such, the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site would not necessitate a police facility expansion, the construction of which could cause significant environmental impacts. Therefore, the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site would not result in a significant impact under CEQA to the environment as a result of the construction or expansion of police facilities.

7.2.3 Schools

The Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site are the construction and operation of a solar energy facility and would not contain a residential component. As such, the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site would not facilitate the need for school facilities. Therefore, implementation of the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site would not result in a significant impact under CEQA to school facilities.

7.2.4 Parks

The Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site are the construction of a solar energy facility and would not contain a residential component. As such, the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility would not facilitate the need for park facilities. Therefore, implementation of the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility would not result in a significant impact under CEQA to parks.

7.2.5 Wastewater

Domestic wastewater from the operations and maintenance building is expected to be limited in volume due to the few staff members required on-site. In addition, wastewater from solar panel washing is expected to be minimal in volume due to the frequency (2 times per year) required. The Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site wastewater for domestic use associated with the operations and maintenance building will be treated via an on-site septic system. Septic systems are permitted by the state. Therefore, the project would not exceed wastewater treatment requirements of the Colorado River Basin Regional Water Quality Control Board or require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. No significant wastewater impact under CEQA would occur.

7.2.6 Water

The Imperial Irrigation District (IID) is a community-owned utility that provides irrigation water and electric power to the lower southeastern portion of California's desert. Water service to the project site is provided by the Imperial Irrigation District (IID) Water Department via a system of canals and delivery gates. The project site is currently used for agricultural production. Averaged over the period from 2000 to 2009, historical water use was approximately 7,612 acres per feet per year. The existing agricultural farm currently uses more water than the proposed solar facility would need during and post construction. Once the plant is operational, approximately 5 acre-feet per year of water will be required primarily for panel washing. Water will be needed for domestic use, solar panel washing and fire protection once the project facilities are fully operational. An onsite water treatment facility is proposed and would draw water from the Westside Main Canal and treat it to the level required for domestic and solar panel washing use. Alternatively, water may be trucked to the site in tanker trucks and stored on site for domestic use, panel washing and dust suppression. Bottled water will be trucked to the site for drinking water. The Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site are anticipated to result in a minimal increase in water demand. Therefore, the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site would not require new or expanded entitlements and resources. No significant water impact under CEQA would occur.

7.2.7 Solid Waste

Solid waste generated in the County of Imperial can be disposed at any of the eight solid waste landfills located within the county: Allied Imperial Landfill, Calexico Landfill, Monofill Landfill, Hot Spa Landfill, Imperial Landfill, Niland Landfill, Picacho Landfill, and Salton City Landfill.

Allied Imperial Landfill, owned and operated by Allied Waste, is located in Imperial County. As of January 2006, the Allied Imperial Landfill had an estimated remaining capacity of approximately 2,105,500 cubic yards and an estimated closure date of 2013 (CIWMB, 2007). An additional 160-acre expansion is proposed at Allied Imperial Landfill (City of El Centro, 2006).

The seven other landfills located in Imperial County are operated by the Imperial County Public Works Department. The capacities and estimated closure dates vary for the landfills. Niland Landfill (2020), Calexico Landfill (2022) and Hot Spa Landfill (2036) have the largest remaining capacities and farthest estimated closure dates of the County landfills. The estimated remaining capacities are based on design limits specific to each landfill site. Estimated closure dates are determined by site capacity and the maximum daily permitted rate of disposal specific to each site. In addition, Mesquite Regional Landfill is expected to open in Brawley (northeast of the project site, in central Imperial County) in 2009 with an estimated closure date of 2097 (CIWMB, 2007). Mesquite Regional Landfill is owned and will be operated by Los Angeles County Sanitation District and will accept solid waste from Imperial County.

The project site currently generates solid waste associated with agricultural use. Solid waste generated during the construction and operation of the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site would be minimal. Waste generated from the

Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site could be taken to any landfill with sufficient permitted capacity. The Proposed Action, Alternative 1-Alternative Transmission Line Corridor, and Alternative 2-Reduced Solar Energy Facility Site would comply with federal, state, and local statutes and regulations related to solid waste. Therefore, there would be no significant impact under CEQA to solid waste.

7.3 Energy and Natural Gas

7.3.1 Energy

The Imperial Irrigation District (IID) supplies non-potable water supplies and electricity to the Imperial County. The IID would provide electricity service to the site (i.e. during non-generating hours for the facility). IID meets its annual resource requirements through a mix of the District owned generation and a number of purchase power contracts that can take the form of must-take contracts and call options. The District's generation resources range from hydroelectric resources on the All-American Canal System to San Juan Unit 3, a coal plant in New Mexico, to the Palo Verdes Nuclear Generation Station near Phoenix and a natural gas and diesel generation within or near the District's service territory.

IID's 2010 Integrated Resource Plan addresses the current challenges to meet retail load requirements adapt to new renewable energy portfolio standards and reduce greenhouse gas emissions. The Plan proposes implementation of energy programs necessary to reduce current energy load by at least 5 percent by 2015, with a 10 percent reduction goal set for 2020. In addition, the Plan calls for generating 20 percent of energy requirements for its service area from renewable sources by 2012, 23 percent by 2014, 26 percent by 2017 and at least 33 percent by 2020; and reducing 2009 greenhouse gas emission levels by at least 35 percent by 2020. The District is also implementing an aggressive energy efficiency program with the goal of reducing peak demand by up to 50 MW within five years.

As currently proposed, the power generated by the proposed project will be delivered to customers in San Diego Gas and Electric's (SDG&E) service territory. The project would assist SDG&E in meeting California's mandate to procure 20 percent of its power from renewable resources by 2010. SDG&E has voluntarily committed to achieving 33 percent of its power from renewable resources by 2020. SDG&E's long-term plan includes a portfolio of renewable energy sources including biogas and biomass, geothermal, hydroelectric, wind, solar and fuel cells.

The electricity generation process associated with the Proposed Action would utilize solar technology to convert sunlight directly into electricity. Solar photovoltaic technology is consistent with the definition of an "eligible renewable energy resource" in Section 399.12 of the California Public Utilities Code and the definition of "in-state renewable electricity generation facility" in Section 25741 of the California Public Resources Code.

Energy Consumption

The use of energy associated with the Proposed Action includes both construction and operational activities. Construction would include site grading, clearing, transmission line construction, and transmission tower placement. Operational activities would include energy use associated with vehicular use and during generating and non-generating hours for the Proposed Action.

Construction-Related Energy Consumption

Construction activities generate energy use through the use of heavy construction equipment and truck and worker traffic. Table 7-1 provides a summary of the anticipated heavy equipment that will be used during construction.

TABLE 7-1
Construction Equipment

Construction Phase	Equipment	Number
Grading/Clearing/Hauling	Dozer	1
	Loader	1
	Water Truck	2
	Dump/Haul Trucks	4
	Scraper	1
Underground Utility Construction	Track Backhoe	1
	Loader/Drill	1
	Water Truck	2
	Concrete Truck	8
	Dump/Haul Trucks	2
Solar System Installation	Skid Steer Cat	1
	Hydraulic Crane	2
	Dump/Haul Trucks	4
	Paver	1
	Roller	1

Source: ISE, 2010.

The Proposed Action will utilize energy-conserving construction equipment, including standard mitigation measures for construction combustion equipment recommended in the Imperial County Air Pollution Control District CEQA Air Quality Handbook. The use of better engine technology, in conjunction, with the ICAPCD's standard mitigation measures will reduce the amount of energy used for the Proposed Action. The standard mitigation measures for construction combustion equipment include:

- Using alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel powered equipment.
- Minimizing idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.
- Limiting, to the extent feasible, the hours of operation of heavy duty equipment and/or the amount of equipment in use.

- Replacing fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).
- Construction equipment operating onsite should be equipped with two to four degree engine timing retard or precombustion chamber engines.
- Construction equipment used for the project should utilize EPA Tier 2 or better engine technology.
- Keeping vehicles well maintained to prevent leaks and minimize emissions, and encourage employees to do the same.

Furthermore, consistent with the intent of AB 32, the Proposed Action should demonstrate that it has policies in place that would assist in providing a statewide reduction in CO₂. To this end, the following greenhouse gas offset measures have been shown to be effective by CARB and should be implemented wherever possible.

Diesel Equipment (Compression Ignition) Offset Strategies (40% to 60% Reduction):

1. Use electricity from power poles rather than temporary diesel power generators.
2. Construction equipment operating onsite should be equipped with two to four degree engine timing retard or precombustion chamber engines.
3. Construction equipment used for the project should utilize EPA Tier 2 or better engine technology.

Vehicular Trip (Spark Ignition) Offset Strategies (30% to 70% Reduction):

4. Encourage commute alternatives by informing construction employees and customers about transportation options for reaching your location (i.e. post transit schedules/routes).
5. Help construction employees rideshare by posting commuter ride sign-up sheets, employee home zip code map, etc.
6. When possible, arrange for a single construction vendor who makes deliveries for several items.
7. Plan construction delivery routes to eliminate unnecessary trips.
8. Keep construction vehicles well maintained to prevent leaks and minimize emissions, and encourage employees to do the same.

With the implementation of air quality Mitigation Measures AQ1 through AQ2 and the greenhouse gas offset measures listed above, the Proposed Action's energy consumption during construction will be further reduced.

Operational-Related Energy Consumption

According to the U.S. Department of Energy (USDOE) records on file for all California energy providers indicate that the net energy generation for the state from all sources is 207,984,263 megawatt-hours (MW-h).

Tables 7-2 and 7-3 provide the energy usage during generating and non-generating hours for the Proposed Action. These energy usage amounts would be the same for Alternative 1-Alternative Transmission Line Corridor and Alternative 2-Reduced Solar Energy Facility. The Proposed Action would use 3.99 MW-h during generating hours and 5.82 MW-h during the non-generating hours, which is substantially less than the overall state energy usage level. With the use of energy-saving light bulbs and other energy conservation measures, this minimal usage of energy would not result in a significant impact. Furthermore, the electricity generation process associated with the Proposed Action would utilize solar photovoltaic (PV) technology to convert sunlight directly into electricity. Solar photovoltaic technology is consistent with the definition of an “eligible renewable energy resource” in Section 399.12 of the California Public Utilities Code and the definition of “in-state renewable electricity generation facility” in Section 25741 of the California Public Resources Code. As such, the Proposed Action would generate renewable energy resources and is considered a beneficial effect rather than an impact.

TABLE 7-2
Generating Hours (Peak Electricity Consumption)

	No. of Units	Power Requirements per Unit (W)	Total Power Consumption (kW)
Inverters Tare Losses	200	140	28
Inverter HVAC	200	1,400	280
O&M Building	1	50,000	50
SCADA System	1	5,000	5
Total Power Consumption by Plant (kW):			363.0
Total Electrical Consumption over 11 Hours (MW-h):			3.99

Source: ISE, 2010.

Assumptions:

- Maximum 200 MW_{AC} power production from facility.
- Maximum 1000 kW_{AC} voltage inverter size.
- HVAC systems required for cooling of inverter assemblies.
- Daily total of 11 hours of generation, 13 hours of non-generation.

TABLE 7-3
Non-Generating Hours (Peak Electricity Consumption)

	No. of Units	Power Requirements per Unit (W)	Total Power Consumption (kW)
Inverters Tare Losses	200	140	28
Inverter HVAC	200	1,400	280
O&M Building	1	50,000	50
SCADA System	1	5,000	5
House Lighting	485	175	84.9
Total Power Consumption by Plant (kW):			447.9
Total Electrical Consumption over 13 Hours (MW-h):			5.82

Source: ISE, 2010.

Assumptions:

- Maximum 200 MW_{AC} power production from facility.
- Maximum 1000 kW_{AC} voltage inverter size.
- HVAC systems required for cooling of inverter assemblies.
- Daily total of 11 hours of generation, 13 hours of non-generation.

Furthermore, the Proposed Action is anticipated to have an operational vehicle trip rate of 15 vehicle trips per day. Vehicle trips per day will not be substantial due to the minimal employees (four full-time employees) required for the operation of the solar facility. As such, the Proposed Action is not expected to consume an excessive amount of energy due to vehicle use.

7.3.2 Natural Gas

No natural gas would be used during the construction or operation of the Proposed Action, Alternative 1-Alternative Transmission Line Corridor, or Alternative 2-Reduced Solar Energy Facility Site. Therefore, no significant impact under CEQA to natural gas is identified.

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