

## 5.10 SOCIOECONOMICS

SES Solar Two, LLC (Solar Two or Applicant) proposes to construct and operate a solar electric generation facility and its ancillary systems (Project). This section describes the potential social and economic effects within the Project vicinity and region arising from the construction and operation of the Project. This discussion considers Project-related effects to population, housing, public services (fire protection, emergency response services, law enforcement, schools, and medical services) and utilities, and county tax revenue and also evaluates the economic benefits that will arise from the Project. This section also evaluates the cumulative effects of the Project and other projects in the area on the availability of labor within the area. In addition, this section discusses proposed mitigation measures, the laws, ordinances, regulations, and standards (LORS) relevant to socioeconomics, relevant agencies and agency contacts, and the permits required for the Project.

### 5.10.1 Affected Environment

The Project Site will encompass approximately 6,500 acres in a currently undeveloped area of Imperial County, California. The Project Site is located 100 miles east of San Diego, California, and 14 miles west of El Centro, California. The Project will be located near the United States Gypsum Corporation's Plaster City Gypsum Wallboard Manufacturing Facility (to the north of the Project Site) and adjacent to Interstate 8 at the Dunaway Road exit (to the south of the Project Site). The nearest incorporated town is Seeley, which is 8 miles to the east of the Project Site. Other communities in the area include Ocotillo, Coyote Wells, and Nomirage (see Figure 1-1, Regional Setting). These small unincorporated communities are located approximately 3 miles west of the Project Site.

The Project will be located within the Ocotillo/Nomirage Community Planning Area of Imperial County. The Land Use Element of the Imperial County General Plan describes the planning area as the "townsite of Ocotillo, and communities of Nomirage, Painted Gorge, Yuha Estates, and the surrounding area generally bounded by the Jacumba Mountains and the San Diego County line on the west, Coyote Mountains on the north, Elsinore Fault/Laguna Salada Fault on the east, and the U.S./Mexico international boundary on the south...."

The Ocotillo/Nomirage planning area is not expected to grow significantly. Currently, no commercial agricultural production occurs in this area, and industry is limited. However, it is expected that the Ocotillo/Nomirage planning area will retain an overall stable economy based on the success of the surrounding commercial endeavors and the rising potential for solar electric energy generation.

#### *5.10.1.1 Population*

The population of the Ocotillo/Nomirage planning area was recorded as approximately 719 in 2000; and 800 in 2006 by the U.S. Census. The population of the planning area and Imperial County at large is predominantly Hispanic. According to the 2007 U.S. census estimate, the population of Imperial County as of 2007 was 161,867 (U.S. Census Bureau 2008). Imperial County has a large Hispanic population; Hispanics constitute approximately 75.7 percent of the total population of the county according to the 2006 census estimate, up from 65.8 percent in

1990. Also, the population of Imperial County is 32.2 percent foreign born. The Hispanic population of Imperial County is high compared to the state as a whole, where the percent Hispanic is 35.9 percent. Diversity in Imperial County is low compared to the diversity of California as a whole; the white non-Hispanic population accounts for 17.3 percent of the county population, and the remaining 7 percent of the population is split among other races (U.S. Census Bureau 2008). As the region grows over the next 20 years, diversity is expected to grow.

The annual growth rates over the last 15 years for Imperial County have been between 1.9 and 2.6 percent, with an average of 2.4 percent, and the annual growth rate for the Ocotillo/Nomirage planning area has averaged less than 1 percent over the past 6 years. The median age for the county was 30.5 in 2000 and is expected to rise to 40 by the year 2025. The increase in median age is expected to affect health care services, dial-a-ride services, and public transit.

According to the Ocotillo/Nomirage Community Area Plan:

“Historically, the population of the Ocotillo/Nomirage area has been older, retired and semi-retired persons, and seasonal residents. Recently, there has been a gradual influx of permanent younger residents, probably influenced by the close proximity of the area to the Imperial Valley South State Prison. Due to water constraints, it is not anticipated the Ocotillo/Nomirage Community Area will experience a significant amount of population growth.”

The Seeley Urban Area is an unincorporated area near the Solar Two Project Site. This town, which encompasses approximately 1,520 acres, is located within Imperial County approximately 6 miles west of El Centro and 8 miles east of the Project Site. It is bounded on the west by the New River, on the north by El Centro Street, on the east by Bennett Road, and on the south by Interstate 8.

### *5.10.1.2 Housing*

The pattern of residential use in the area of the Project Site is discussed in Section 5.9, Land Use, of this Application for Certification. Construction of Solar Two Project will not physically divide an established community because the nearest established community is Ocotillo Wells. This town lies 5 miles to the west of the Project Site. The private lands within the Project Site are zoned for Open Space use (see Section 5.9). Few residences are present in the area, and no inhabited residence will be displaced as a result of the construction of the Project.

The sources of housing for the workers needed for Project construction and operation are likely to be located within a 1- to 2-hour commute distance of the Project Site. Sources of housing include the towns of El Centro, Imperial, and Niland and the cities of Riverside and San Diego. Communities in the immediate area include Ocotillo, Nomirage, and Yuha Estates. According to the Imperial County General Plan, the demand for housing in the Ocotillo/Nomirage area is not strong. Housing data for Imperial County and representative areas are displayed below in Table 5.10-1, Available Housing.

**Table 5.10-1  
Available Housing**

Type of Housing	Imperial County	Ocotillo	El Centro	San Diego County
Multi-family	854 (Unincorporated) (Imperial County General Plan, Housing Element 2004)	0 (Imperial County Colonia Master Plan)	2,146 (City of El Centro Housing Element of the General Plan Update)	371,803 (County of San Diego Housing Element)
Single-family	5,859 (Unincorporated) (Imperial County General Plan, Housing Element 2004)	136 (Imperial County Colonia Master Plan)	9,318 (City of El Centro Housing Element of the General Plan Update)	596,148 (County of San Diego Housing Element)
Average vacancy rate	3.0% (Homeowner); 8.7% (Rental) (2006 American Community Survey)	7.9% (Homeowner); 9.1% (Rental) (2000 Census of Population and Housing)	1.2% (Homeowner); 4.9% (Rental) (2000 Census)	2.8% (Homeowner); 5.1% (Rental) (2006 American Community Survey)
Available hotel rooms	11,466 (URS Phone Survey, 2008)	Ocotillo Trailer Park & Motel 14 Agate Road Ocotillo, CA 92259-760-358-7559 (Imperial County Colonia Master Plan)	N/A	N/A
Median home price	\$125,000 (2006 Census)	\$45,000 (City data)	\$104,300 (2000 Census)	\$227,200 (2000 Census)
Median household income	\$37,086 (2006 Census)	\$23,438 (2000 Census)	\$33,161 (2000 Census)	\$51,939 (2004 Census)
Total number housing units	51,589 (2006 Census) 43,891 (2000 Census) (Excluding Hotel Rooms)	253 (2000 Census of Population and Housing)	12,263 (2000 Census)	1,125,827 (2006 Census)

Sources: California Association of Realtors, 2005; Chamber of Commerce, 2008; City of El Centro, 2008; Imperial County, 2006; Ocotillo City Data, 2006; U.S. Census Bureau, 2000; U.S. Census Bureau, 2006; URS Corporation 2008; American Community Survey, 2008.

Notes:

% = percent

N/A = not available

In California, an average of 56.9 percent of households own their home; however, in Imperial County home ownership is slightly higher with a homeownership rate of 58.3 percent. However, the Ocotillo/Nomirage planning area has many housing constraints, including lack of water and public utilities. The low income of some local residents is also a factor in housing constraints, because many of the local residents cannot afford to build homes. For many farm workers, this contributes to conditions of overcrowding. The overcrowding of permanent farm workers is due to the relatively low wages offered to farm workers.

The county housing has an overall vacancy rate of 11.7 percent (homeowner vacancy rate is 3.0 percent and rental vacancy rate is 8.7 percent) according to 2006 U.S. Census Bureau data, compared to the nationwide rental vacancy rate of 10.1 percent (U.S. Census Bureau 2008). The Imperial County Housing Element states, “Given that the median single family home price in the unincorporated County ranges from \$88,500 to \$156,500, homeownership is beyond the reach of most very low and low income households.” However, due to the range of single-family housing identified in Table 5.10-1, Available Housing, and the significant number of trailer sites, townhomes, and condominiums in the county, many affordable homeownership opportunities are provided in the unincorporated areas. To provide low-income housing, the county has plans for re-zoning some areas for high-density development to accommodate 4,000 affordable housing units.

Due to the lack of sewer facilities and water constraints, it is not expected that large residential subdivisions or multiple-family housing units will be developed within the planning area. In general, the Ocotillo/Nomirage community planning area has a sufficient amount of land zoned for residential uses to accommodate future growth and housing needs.

There are sufficient temporary units within the surrounding communities of Seeley and El Centro to support specialized personnel that will commute to the Project Site on a weekly basis from outside the local area. Rental rates within the regional vicinity of the Project Site vary. Median gross rent for Imperial County in 2006 is reported as \$654 by the 2006 U.S. Census. Outlying areas such as Seeley and Ocotillo generally have lower rent. There are approximately 147 hotels and motels within the area of El Centro and the community of Seeley, California. The average hotel and motel in this area has 78 rooms. Most hotels and motels contacted stated winter time is the busiest time due to the cooler climate. The slowest time for hotels and motels reported was during the summer months. The average vacancy rate for the hotels contacted was 50 percent, but that can vary by season and according to special events.

**5.10.1.3 Economic Base and Employment**

Median per capita income for Imperial County has risen from \$13,239 in 1999 to \$15,549 in 2006 according to the census reports (U.S. Census Bureau 2008). Mean and median household income for the county are listed in Table 5.10-2, Household Income for Imperial County (in 2006 Inflation-adjusted Dollars).

**Table 5.10-2  
Household Income for Imperial County  
(in 2006 Inflation-adjusted Dollars)**

<b>Income</b>	<b>Family Households</b>	<b>Non-Family Households</b>
Mean	\$52,262	\$32,689
Median	\$37,086	\$19,739

Source: American Community Survey, Imperial County, Economic Characteristics, 2006.

Imperial County has a high unemployment rate compared with the state average. The current unemployment rate in Imperial County is 15.3 percent (American Community Survey 2006) and projected to continue to be 15 to 18 percent according to the U.S. Department of Labor (Bureau of Labor Statistics 2008). However, the unemployment rates for Ocotillo/Nomirage are 2.6 and 3.8 percent, respectively, whereas the unemployment rate for the state of California is 6.6 percent (American Community Survey 2006).

The predominant industry in the area of the Project Site is agriculture. However, no commercial agriculture is conducted in the Ocotillo/Nomirage planning area. Most residents have to travel to larger centers such as Seeley and El Centro for work, though a small commercial zone exists within Ocotillo Wells.

Countywide, an abundant labor force is available to supply the Solar Two Project with enough labor to meet the demands of Project construction and operation without significantly diminishing the available labor force. Regionally available relative employment by industry is shown in Table 5.10-3, El Centro Employment by Industry Annual, and Table 5.10-4, San Diego-Carlsbad-San Marcos Employment by Industry Annual.

**Table 5.10-3  
El Centro Employment by Industry Annual**

Industry	Occupation Code	1990	1995	2000	2005	2006	2007
<b>By Type</b>							
Civilian Labor Force	00-000010	47,400	58,000	61,800	No data	64,100	68,100
Civilian Employment	00-000020	35,300	41,000	52,000	No data	54,200	55,800
Civilian Unemployment	00-000030	12,100	17,000	9,800	No data	9,900	12,300
Civilian Unemployment Rate	00-000040	25.6%	29.3%	15.8%	No data	15.5%	18.0%
Total, All Industries	01-000000	44,900	48,500	50,400	53,000	56,200	57,700
Total Farm	11-000000	15,000	14,500	12,300	10,600	11,500	11,800
Total Nonfarm	00-000000	29,900	34,000	38,100	42,500	44,700	45,900
Total Private	05-000000	20,400	20,800	22,700	25,700	27,300	27,800
<b>By Industry</b>							
Goods Producing	06-000000	3,700	3,100	3,600	4,200	4,500	4,500
Natural Resources, Mining, and Construction	15-000000	2,100	1,400	2,000	1,900	2,000	1,900
Manufacturing	30-000000	1,600	1,600	1,600	2,300	2,600	2,600
Durable Goods	31-000000	600	700	900	800	800	800
Nondurable Goods	32-000000	1,000	900	700	1,500	1,700	1,800
Service Providing	07-000000	26,200	30,900	34,500	38,200	40,200	41,400
Private Service Producing	08-000000	16,700	17,700	19,100	21,400	22,800	23,200
Trade, Transportation, and Utilities	40-000000	8,000	8,100	9,400	10,800	11,200	11,100
Wholesale Trade	41-000000	1,800	1,500	1,700	1,700	1,600	1,900
Retail Trade	42-000000	5,400	5,400	6,200	7,300	7,700	7,500
Food and Beverage Stores	42-445000	1,500	1,300	1,500	1,300	1,300	1,200

**Table 5.10-3  
El Centro Employment by Industry Annual**

Industry	Occupation Code	1990	1995	2000	2005	2006	2007
General Merchandise Stores	42-452000	1,000	1,700	1,700	2,300	2,600	2,500
Residual-Miscellaneous Store Retailers	42-453000	2,800	2,400	3,000	3,600	3,800	3,800
Transportation, Warehousing, and Utilities	43-000000	800	1,200	1,600	1,800	1,800	1,700
Information	50-000000	500	500	400	400	400	400
Financial Activities	55-000000	1,200	1,400	1,400	1,300	1,400	1,400
Finance and Insurance	55-520000	700	700	800	800	900	900
Real Estate, Rental, and Leasing	55-530000	500	700	600	500	500	500
Professional and Business Services	60-000000	1,900	2,300	1,900	2,200	2,600	2,700
Educational and Health Services	65-000000	1,700	1,900	2,200	2,800	2,900	2,900
Leisure and Hospitality	70-000000	2,700	2,800	2,900	3,100	3,300	3,500
Food Services and Drinking Places	70-722000	1,800	2,200	2,300	2,700	2,900	3,000
Residual-Arts, Entertainment, and Recreation	70-710000	900	600	600	400	400	500
Other Services	80-000000	700	700	800	1,000	1,100	1,200
Government	90-000000	9,500	13,300	15,500	16,800	17,400	18,200
Federal Government	90-910000	1,100	1,200	1,800	1,900	1,900	2,100
State and Local Government	90-940000	8,400	12,000	13,700	14,900	15,500	16,100
State Government	90-920000	No data	2,500	2,700	2,600	2,600	2,800
Local Government	90-930000	No data	9,600	10,900	12,200	12,900	13,400

Source: California Employment Development Department, 2008.

Note:

% = percent

**Table 5.10-4  
San Diego-Carlsbad-San Marcos Employment by Industry Annual**

Industry	Occupation Code	1990	1995	2000	2005	2006	2007
<b>By Type</b>							
Civilian Labor Force	00-000010	1,215,700	1,224,900	1,375,400	No data	1,520,400	1,542,500
Civilian Employment	00-000020	1,159,300	1,147,100	1,321,600	No data	1,459,900	1,471,600
Civilian Unemployment	00-000030	56,400	77,800	53,800	No data	60,500	70,900
Civilian Unemployment Rate	00-000040	4.6%	6.4%	3.9%	No data	4.0%	4.6%
Total, All Industries	01-000000	977,400	989,300	1,205,200	1,292,800	1,312,500	1,319,000
Total Farm	11-000000	10,800	10,800	11,400	10,700	10,900	10,800
Total Nonfarm	00-000000	966,600	978,500	1,193,800	1,282,100	1,301,600	1,308,200
Total Private	05-000000	789,300	792,400	987,200	1,067,000	1,083,600	1,086,100
<b>By Industry</b>							
Goods Producing	06-000000	184,200	151,600	192,600	195,700	197,100	189,700
Natural Resources and Mining	10-000000	600	300	300	400	500	400
Construction	20-000000	60,200	44,500	69,700	90,800	92,700	87,200
Construction of Buildings	20-236000	13,800	10,300	15,600	21,700	21,800	20,600
Heavy and Civil Engineering Construction	20-237000	7,800	6,000	7,900	9,900	10,400	9,700
Specialty Trade Contractors	20-238000	38,600	28,200	46,200	59,200	60,400	56,900
Building Foundation and Exterior Contractors	20-238100	8,700	6,000	11,100	14,800	14,300	12,600
Building Equipment Contractors	20-238200	10,900	9,500	15,200	19,100	20,100	20,600
Building Finishing Contractors	20-238300	12,800	9,200	14,400	17,800	18,200	16,400
Residual-Other Specialty Trade Contract	20-238900	6,200	3,500	5,500	7,500	7,800	7,300
Manufacturing	30-000000	123,500	106,800	122,600	104,500	103,900	102,100
Durable Goods	31-000000	100,600	79,500	92,200	79,100	78,400	77,100
Computer and Electronic Product Manufacturing	31-334000	32,500	27,300	33,400	27,000	26,700	26,000
Computer and Peripheral Equipment Manufacturing	31-334100	5,700	4,100	5,400	4,200	4,000	3,400
Audio and Video Equipment Manufacturing	31-334300	3,300	4,200	5,600	2,300	2,300	2,000

**Table 5.10-4  
San Diego-Carlsbad-San Marcos Employment by Industry Annual**

Industry	Occupation Code	1990	1995	2000	2005	2006	2007
Residual-Semiconductor and Electronic Component Manufacturing	31-334400	12,400	11,800	16,200	13,000	12,100	12,000
Electronic Instrument Manufacturing	31-334500	11,100	7,300	6,300	7,500	8,400	8,500
Transportation Equipment Manufacturing	31-336000	31,100	14,500	13,500	13,900	14,100	14,700
Residual-Motor Vehicle Manufacturing	31-336100	900	1,300	1,500	1,400	1,400	1,300
Aerospace Product and Parts Manufacturing	31-336400	22,900	6,700	6,200	5,500	5,900	6,300
Ship and Boat Building	31-336600	7,300	6,500	5,700	7,000	6,700	7,100
Residual-Miscellaneous Manufacturing	31-339000	37,000	37,700	45,300	38,200	37,600	36,400
Nondurable Goods	32-000000	22,900	27,300	30,400	25,400	25,500	25,000
Service Providing	07-000000	782,400	826,900	1,001,200	1,086,400	1,104,500	1,118,500
Private Service Producing	08-000000	605,000	640,800	794,600	871,300	886,500	896,400
Trade, Transportation, and Utilities	40-000000	171,600	175,700	202,600	219,400	222,000	223,000
Wholesale Trade	41-000000	32,200	33,400	39,100	43,600	45,100	45,500
Merchant Wholesalers, and Durable Goods	41-423000	17,800	19,600	22,400	23,600	24,100	24,300
Merchant Wholesalers, and Nondurable Goods	41-424000	9,900	10,700	13,400	13,900	14,500	14,600
Wholesale Electronic Markets and Agents and Brokers	41-425000	4,600	3,200	3,300	6,100	6,500	6,600
Retail Trade	42-000000	115,200	115,500	133,800	147,400	148,300	148,700
Motor Vehicle and Parts Dealer	42-441000	14,600	15,000	18,600	20,300	19,800	19,200
Residual-Furniture and Home Furnishings Stores	42-442000	20,500	18,600	22,300	21,400	20,700	20,000
Building Material and Garden Equipment Stores	42-444000	8,500	7,500	9,100	11,400	11,200	10,500

**Table 5.10-4  
San Diego-Carlsbad-San Marcos Employment by Industry Annual**

Industry	Occupation Code	1990	1995	2000	2005	2006	2007
Food and Beverage Stores	42-445000	21,400	21,400	22,200	25,000	25,900	27,600
Grocery Stores	42-445100	18,600	17,900	19,100	22,100	22,800	24,200
Residual-Specialty Food Stores	42-445200	2,900	3,500	3,100	2,900	3,100	3,400
Health and Personal Care Stores	42-446000	5,800	6,200	7,600	8,700	8,700	8,900
Clothing and Clothing Accessories Stores	42-448000	13,700	12,500	14,400	17,000	17,700	18,600
Clothing Stores	42-448100	10,600	9,700	11,400	13,500	14,100	14,900
Residual-Shoe Stores	42-448200	3,100	2,800	3,000	3,400	3,600	3,700
Sporting Goods, Hobby, Book, and Music Stores	42-451000	5,000	6,600	8,200	8,200	8,500	8,700
General Merchandise Stores	42-452000	18,700	19,500	20,600	25,200	25,900	25,700
Department Stores	42-452100	12,900	14,800	16,600	19,100	19,300	19,200
Other General Merchandise Stores	42-452900	5,800	4,700	4,100	6,100	6,600	6,600
Miscellaneous Store Retailers	42-453000	7,000	8,200	10,800	10,300	9,800	9,600
Transportation, Warehousing, and Utilities	43-000000	24,100	26,900	29,800	28,400	28,700	28,800
Utilities	43-220000	6,600	6,500	5,700	6,400	6,500	6,600
Transportation and Warehousing	43-400089	17,500	20,400	24,100	21,900	22,200	22,200
Residual-Air Transportation	43-481000	14,300	16,000	19,000	18,900	19,200	19,000
Warehousing and Storage	43-493000	3,200	4,400	5,100	3,000	3,100	3,200
Information	50-000000	21,700	26,100	39,200	37,400	37,300	38,000
Publishing Industries (except Internet)	50-511000	7,900	8,700	12,000	10,800	10,700	10,500
Newspaper, Periodical, Book, and Directory Publishers	50-511100	6,900	6,600	7,700	6,800	6,800	6,300
Software Publishers	50-511200	1,000	2,200	4,400	4,000	3,900	4,200
Broadcasting (except Internet)	50-515000	3,000	3,300	3,600	4,600	4,600	4,800
Telecommunications	50-517000	6,500	9,900	15,600	15,800	16,200	17,500
Wireless Telecommunications Carriers	50-517200	200	3,600	7,700	8,700	9,300	10,500

**Table 5.10-4  
San Diego-Carlsbad-San Marcos Employment by Industry Annual**

Industry	Occupation Code	1990	1995	2000	2005	2006	2007
Residual-Other Telecommunications	50-517900	6,400	6,300	7,800	7,100	6,900	7,000
Residual-Other Information Services	50-519000	4,300	4,200	8,000	6,200	5,800	5,200
Financial Activities	55-000000	65,300	57,300	71,200	83,200	83,700	80,400
Finance and Insurance	55-520000	42,300	35,000	44,000	53,500	53,200	50,500
Residual-Other Finance	55-521000	500	200	400	1,100	1,500	1,300
Credit Intermediation and Related Activities	55-522000	26,600	17,900	20,400	27,300	26,600	24,700
Securities, Commodity Contracts and Investments	55-523000	3,000	4,300	7,500	8,000	8,200	7,700
Insurance Carriers and Related	55-524000	12,200	12,600	15,600	17,100	16,900	16,800
Real Estate and Rental and Leasing	55-530000	23,000	22,300	27,200	29,700	30,500	30,000
Real Estate	55-531000	17,800	17,000	19,500	22,700	23,700	23,500
Residual-Rental and Leasing Services	55-532000	5,200	5,300	7,700	7,000	6,800	6,400
Professional and Business Services	60-000000	124,100	135,200	195,200	210,400	213,600	216,500
Professional, Scientific and Technical Services	60-540000	65,600	66,000	92,300	105,900	109,700	112,400
Legal Services	60-541100	9,700	9,300	10,500	12,000	12,400	12,600
Architectural, Engineering and Related Services	60-541300	11,900	11,600	16,800	22,200	23,400	24,000
Scientific Research and Development Services	60-541700	16,600	17,500	21,200	25,300	24,000	25,000
Residual-Other Professional, Scientific and Technical Services	60-541900	27,500	27,600	43,800	46,500	49,900	50,700
Management of Companies and Enterprises	60-550000	12,500	14,100	18,700	17,400	16,900	16,300
Administrative and Support and Waste Services	60-560000	46,000	55,100	84,200	87,200	87,100	87,800
Administrative and Support Services	60-561000	43,700	53,300	82,100	84,600	84,500	85,100
Employment Services	60-561300	14,200	19,300	40,700	38,100	37,300	36,600

**Table 5.10-4  
San Diego-Carlsbad-San Marcos Employment by Industry Annual**

<b>Industry</b>	<b>Occupation Code</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Investigation and Security Services	60-561600	5,600	7,300	6,800	8,800	9,100	9,400
Services to Buildings and Dwellings	60-561700	11,700	13,500	19,900	21,600	21,600	21,800
Residual-Other Support Services	60-561900	12,300	13,100	14,700	16,100	16,500	17,400
Waste Management and Remediation Services	60-562000	2,300	1,900	2,100	2,600	2,500	2,700
Educational and Health Services	65-000000	84,100	97,500	115,300	122,500	125,100	128,800
Educational Services	65-610000	11,100	13,400	18,200	21,100	21,300	21,700
Residual-Elementary and Secondary Schools	65-611100	7,500	8,400	12,800	14,600	14,900	15,200
Colleges, Universities and Professional Schools	65-611300	3,600	4,900	5,400	6,500	6,400	6,500
Health Care and Social Assistance	65-620000	73,000	84,200	97,200	101,400	103,800	107,100
Ambulatory Health Care Services	65-621000	31,200	35,600	41,100	43,500	44,800	45,900
Hospitals	65-622000	19,600	20,600	22,300	23,900	24,000	24,500
Nursing and Residential Care Facilities	65-623000	12,400	14,600	17,100	17,300	17,900	19,000
Social Assistance	65-624000	9,800	13,400	16,700	16,800	17,200	17,600
Leisure and Hospitality	70-000000	104,300	113,300	129,000	149,600	156,500	160,900
Arts, Entertainment, and Recreation	70-710000	15,900	15,400	17,800	22,600	23,700	24,600
Amusement, Gambling, and Recreation	70-713000	8,400	9,500	12,000	15,200	15,700	16,700
Residual-Other Amusement and Recreation	70-711000	7,500	5,900	5,800	7,500	7,900	7,900
Accommodation and Food Service	70-720000	88,500	97,900	111,200	127,000	132,800	136,400
Accommodation	70-721000	23,900	24,100	26,500	29,200	30,500	31,500
Food Services and Drinking Places	70-722000	64,600	73,900	84,700	97,800	102,300	104,900
Full-Service Restaurants	70-722100	26,600	32,100	41,200	48,000	51,000	52,700

**Table 5.10-4  
San Diego-Carlsbad-San Marcos Employment by Industry Annual**

Industry	Occupation Code	1990	1995	2000	2005	2006	2007
Residual-Limited-Service Eating Places	70-722200	37,900	41,800	43,500	49,800	51,200	52,200
Other Services	80-000000	33,800	35,600	42,200	48,800	48,400	48,800
Repair and Maintenance	80-811000	11,600	12,000	13,000	13,000	12,700	12,300
Personal and Laundry Services	80-812000	10,100	10,800	13,600	15,000	15,200	15,400
Religious, Grantmaking, Civic, Professional and Similar Organizations	80-813000	12,100	12,800	15,600	20,800	20,400	21,100
Government	90-000000	177,400	186,100	206,600	215,100	217,900	222,100
Federal Government	90-910000	49,200	45,700	42,100	39,700	40,400	40,800
Other Federal Government	90-912999	25,500	22,900	20,900	20,200	21,800	22,200
Department of Defense	90-919110	23,700	22,800	21,200	19,400	18,700	18,600
State and Local Government	90-940000	128,200	140,400	164,600	175,400	177,500	181,400
State Government	90-920000	28,100	31,100	35,000	38,200	39,100	40,300
State Government Education	90-921611	18,000	19,800	22,700	25,600	26,200	26,800
Other State Government	90-922999	10,100	11,300	12,200	12,600	12,900	13,500
Local Government	90-930000	100,100	109,300	129,600	137,300	138,400	141,100
Local Government Education	90-931611	55,000	60,700	74,100	72,400	73,000	74,900
County	90-939012	16,900	18,100	18,200	19,200	20,000	20,500
City	90-939022	15,800	16,700	18,900	19,800	19,500	19,200
Other Local Government	90-932999	12,300	13,900	18,400	25,800	25,900	26,400

Source: California Employment Development Department, 2008.

Note:

% = percent

### 5.10.2 Environmental Consequences

The criteria to use in determining whether Project-related socioeconomic effects would be significant are presented in the California Environmental Quality Act Guidelines, Appendix G. Effects attributable to the Project are considered significant if they would:

- induce substantial growth or reduction of population,
- induce substantial increase in demand for public services and utilities,

- displace a large number of people or existing housing,
- disrupt or divide the physical arrangement of an established community, or
- result in substantial long-term disruptions to businesses.

Socioeconomics effects often involve changes in community interaction patterns, social organizations, social structures, social institutions, and conflicts with community attitudes, values or perceptions. This section assesses the potential occurrence and significance of socioeconomic effects as a result of the construction and operation of the Solar Two Project.

The main socioeconomic effect to the area surrounding the Solar Two Project would be from the introduction of a large number of permanent jobs. However, it is anticipated that other socioeconomic benefits, such as increased revenue from sales tax on local goods purchased and purchases by permanent employees would be realized. Additionally, there would be educational benefits associated with the Project. Students from local schools and colleges are expected to study the Project as a model for future growth in the renewable energy development and technology. Potential boosts to tourism are also anticipated. Interest in the area would also be elevated due to the Project.

Project construction is expected to take place in two phases and employ an average of 360 persons per month, totaling 24,086 personnel months for the 40-month construction period (for a detailed description of project phasing see Section 3.0, Project Description and Location). Monthly construction personnel will peak at a maximum of 731 people. Approximately 90 percent of the workforce will reside in Southern California. The remainder may come from other areas in California, Arizona, or Oregon. It is anticipated that specialized trades and higher-skill-level construction personnel will commute to the Project Site on a weekly basis, and will reside in temporary housing such as hotels, motels, or apartments during the work week for the duration of the Project.

It is expected that the Project will be operated by a staff of approximately 164 full-time employees when it is fully functioning. The Project will operate 7 days a week, with maintenance activities occurring 7 days a week, 24 hours a day.

The Project will not displace any current jobs and will not affect the surrounding agricultural enterprises. The Project will also not displace any people, as the Project Site is currently unused. The increase in permanent employees is not expected to have an adverse effect on employment, housing, tax revenues, public services, or utilities. In addition, the Project is expected to have a positive effect on the local economy because it will introduce jobs and potentially increase tax revenues, due to the construction and operational employees' economic activities.

The Project Site is not located within any established communities; therefore, the Project will not divide an established community.

#### **5.10.2.1 Construction Workforce**

Due to the limited population of the Ocotillo/Nomirage planning area, it is expected that the construction of the Project will attract a number of temporary workers from outside the planning area. It is expected that the major source of workers (85 percent) will be derived from within Imperial County, primarily from the city of El Centro.

The Ocotillo/Nomirage planning area also abuts San Diego County to the west and Riverside County to the north. Each of these counties contains additional pools of laborers residing within commuting distance that could supply labor for Project construction if there is not sufficient labor available from within Imperial County. It is assumed that this additional labor would not require new or temporary housing within the region.

According to a report prepared by the Electric Power Research Institute, *Socioeconomic Impacts of Power Plants*, construction workers will commute as much as 2 hours to construction sites from their homes rather than relocate (Gilmore and Coddington 1981). Based on this study it is assumed that the additional labor coming from outside El Centro would not require additional housing.

Imperial, San Diego, and Riverside counties have a large combined available workforce. A review of the estimated labor demand compared to current and historical labor and employment trends indicates that the labor supply within commuting distance of the Project will meet Project needs. Buses would be provided from El Centro and local areas to transport workers to and from the Project Site. The busing plan would be finalized with input from construction contractors based on the location of workers.

Project construction is expected to have a positive effect on local employment and it will likely help stimulate the local economy. This is particularly the case in El Centro which currently has relatively high levels of unemployment. The Project would primarily draw on a labor pool within Imperial County, mainly from El Centro, providing a large number of jobs that have low-skill set requirements and/or opportunities that would include job training. When additional workers are required (for instance, during the Project's period of peak worker demand) the Project will likely use workers within daily commute distance from nearby San Diego County or outlying areas. In the rare case that specialized workers are not available from areas within the daily commute distance, the Project may bring in temporary workers from Riverside County or Yuma, Arizona.

It is not expected that the Project would cause any labor shortages or related issues within its area of influence. Currently there is a sufficient local workforce, and circumstances necessitating the import of any labor other than highly specialized personnel into El Centro are not foreseen. It is foreseeable that specialized personnel that do come from outside of the daily commuting distance would stay in apartments and/or hotels within El Centro. Therefore, it is not expected that the Project would result in a significant increase in population to the local area.

Solar Two will provide a total of approximately \$59,700,000 (in 2008 dollars) in construction payroll for the first and second year of the Project combined. During construction, the average salary per employee is expected to meet or exceed current wage and benefits for similar work in El Centro (see Table 5.10-5, May 2007 Existing El Centro Occupational Employment and Wage Estimates). Table 5.10-5 shows the current mean wages for different occupations within El Centro, as well as the number of workers within each occupational category that were available at the time of the survey. The projected monthly construction labor is presented in Table 5.10-6, Construction Trade Projection (750 MW), for the 40-month construction period. The size of the workforce on-site will range from 101 during Month 1 to a peak of 731 during Month 7. The average monthly workforce will be 354.

**Table 5.10-5  
May 2007 Existing El Centro Occupational Employment and Wage Estimates**

Occupation	Employment	Hourly Mean Wage	Annual Mean Wage
Carpenters	80	\$21.51	\$44,740
Concrete crews	140	\$14.87	\$30,920
Electricians	210	\$23.91	\$49,730
Ironworkers	130	\$14.17	\$29,480
Laborers	540	\$13.36	\$27,790
Miscellaneous crews	630	\$14.32	\$29,790
Operators	190	\$23.14	\$48,120
Plumbers	100	\$18.19	\$37,840
Teamsters	680	\$16.00	\$33,280
Technicians	60	\$20.72	\$43,100

Source: Bureau of Labor Statistics, 2008.

Table 5.10-6, Construction Trade Projection (750 MW), shows the workforce available within Imperial County. This table illustrates the county's capability to adequately meet the construction demands associated with the Solar Two Project.

### 5.10.2.2 Operational Workforce

The Imperial County General Plan encourages economic development that will provide employment opportunities in communities with high unemployment and that are distant from existing job opportunities. The Solar Two Project is expected to create 164 permanent jobs based on staff projections for Project operation. The permanent employees would mostly be drawn from the areas surrounding the Project; however, some specialized positions would require highly trained individuals that may be recruited from the state or national pools (see Table 5.10-7, Projected Operations and Maintenance Personnel Requirements).

It has been shown that permanent employees will commute as much as 1 hour to their workplace (Gilmore and Coddington 1981). Therefore, most of the permanent staff would commute to the Solar Two Project from surrounding areas (e.g., El Centro, Imperial County, Riverside County, or San Diego County). Those specialized personnel that are required to relocate to the area are not expected to encounter difficulties finding housing in the surrounding communities of El Centro and Imperial County. There are sufficient units available, according to the reported vacancy rates in surrounding areas, and rents average \$654.

Permanent staff are expected to consist of seven supervisory, general, and administrative positions, 11 operations and maintenance supervisors and engineers in the power block, and 115 technician and maintenance personnel in the solar field. The majority of the personnel will be hired from the local labor pool; however, some specialized personnel may be drawn from a larger statewide or national labor pool. As demonstrated, there is sufficient housing within Imperial County to support a small number of personnel who may be required to relocate to the region.

The Project will be staffed 24 hours per day, with the majority of staff on-site during daytime operating hours. For the 164 employees required for Project operation, the annual operation payroll would be approximately \$4.9 million for Year 1, and \$7.1 million for Year 2. These amounts are a significant increase in wages within the local and regional area. The county would recognize revenues mostly in the form of increased sales taxes, while income tax revenues would also be realized.

### *5.10.2.3 Schools*

The Ocotillo/Nomirage planning area is served by the Imperial Unified School District. Six schools serve the area of the Project Site: three elementary, one middle, and two high schools. The current Imperial Unified School District impact fee is \$0.47 per square foot for industrial development. Fees would apply to buildings but not the solar field apparatus. Applicable school impact fees would contribute increased income to the Imperial Unified School District as a result of Project development.

The closest school is Westside Elementary school, which is located at 2295 West Vaughn Road, El Centro, California. The other elementary schools in the service area are Ben Hulse Elementary, and T.L. Waggoner Elementary. Frank Wright Middle School is located in Imperial, California. The two high schools are Imperial High School and Imperial Avenue Holbrook High School. Bus service is provided to most areas.

A local college called Imperial Valley College is located about 8 miles southeast of the Project Site in Imperial. The schools are presently adequate to serve existing rural agricultural school populations. Other development of existing undeveloped rural subdivisions in the area could lead to overburdened school facilities and require future expansion. No future schools are anticipated in the area.

Although some temporary effects may be associated with noise and distraction caused by Project construction activities, these activities are expected to take place on the Project Site and not near enough to any local schools to create an effect.

The addition of a renewable energy installation to the region and the opportunity to observe the development of a large solar array may be of educational benefit to area students and provide material for instruction and a field trip destination on completion of the Project. The completed Project will be over 8 miles away from the nearest school grounds (see Section 5.16, Public Health and Safety). Enrollment within the Imperial Unified School District is listed in Table 5.10-8, Elementary and Middle Schools (Kindergarten through 8<sup>th</sup> Grade) Enrollment.









**Table 5.10-8  
Elementary and Middle Schools  
(Kindergarten through 8<sup>th</sup> Grade) Enrollment**

Grade	Enrollment 2007/2008
Ben Hulse Elementary	1,012
T. L. Waggoner Elementary	634
Westside Elementary	50
Frank Wright Middle School	837

Source: Imperial Unified School District, 2008.

The area's secondary school needs are primarily served by Imperial High School and Imperial Avenue Holbrook High School. Most students of high school age attend these high schools or schools located in San Diego or Riverside or other surrounding areas. Enrollment for Imperial High School and Imperial Avenue Holbrook High School is provided in Table 5.10-9, High School Enrollment.

**Table 5.10-9  
High School Enrollment**

Grade	Enrollment 2007/2008
Imperial High School	869
Imperial Avenue Holbrook High School	60

Source: Atascadero High School, Office of the Registrar, 2008.

The Project is not expected to cause significant additions to school enrollment beyond the current capacity of Imperial Unified School District because the employees for the Project would be drawn from locally available labor. However, there could be some specialized personnel drawn from areas outside Imperial Unified School District, and therefore, small additions to school enrollment could occur. According to a conversation with Kay McAllaster, Director of Business Services at the Imperial Unified School District, on 16 June 2008, local schools are currently at capacity; however, Imperial Unified School District expects additions to enrollment based on projected growth rates and expected development. Ms. McAllaster predicts that the District would be able to accommodate growth resulting from the Project at existing schools, or by adding new facilities and teachers as needed. School Impact Fees are a resource to support this growth in enrollment levels, and to support the addition of new facilities and faculty as necessary.

Socioeconomic effects to schools, local, statewide and nationwide, include benefits such as the opportunity to visit and observe the development of a historic renewable energy facility, as well as research and internship opportunities. Partnerships with area educational facilities could boost interest in the technical field of solar and renewable energy production, and other synergistic effects between education and the renewable energy industry.

### *5.10.2.4 Fiscal Effect*

The anticipated total construction cost of the Solar Two Project is over \$1 billion. This cost includes the construction costs of approximately 30,000 SunCatchers at final build-out in Phase I and Phase II and the associated infrastructure and construction of a new 230-kilovolt transmission line. Of the total construction cost, roughly \$84 million will be paid out as wages and salaries, including benefits, to workers at the plant. When available, local products will be purchased; therefore, sales tax revenue will be immediately realized by Imperial County. The sales tax rate in Imperial County is currently 7.75 percent. Operation of the Project will have additional incremental and permanent benefits to the local economy, primarily through local expenditures for maintenance and equipment-related material purchases. The anticipated value of operation materials purchased will vary from year to year. However, expenditures on local materials in the first 3 years of Project operation are expected to be approximately \$8 million.

### *Indirect and Induced Economic Effects*

Expected secondary economic effects during both construction and operation of the Solar Two Project are discussed here. Indirect effects represent the impacts (e.g., change in employment) caused by the iteration of industries purchasing from industries resulting from direct final demand changes. Induced effects represent the impacts (e.g., change in employment) on all industries caused by the expenditures of new household income generated by the direct and indirect effects of direct final demand changes. IMPLAN Professional Version 2.0.1025 was used to create an input/output model assessing these economic impacts.

### **Indirect and Induced Economic Effects During Project Construction**

Construction activity would result in secondary economic and employment impacts (indirect and induced impacts) that would occur within counties within the region of the Project, which consists of Imperial, Riverside, and San Diego counties. The affected region of the Project was determined based on: (1) the available labor force within reasonable commuting distance to serve the construction needs of the Project, and (2) locations where supplies and materials are expected to be purchased.

Indirect and induced income and spending effects occur due to the purchase of goods and services by firms involved with construction. Indirect employment effects and induced employment result from construction workers spending their income in their local area, and typically lag behind direct effects by 6 to 12 months. These additional funds would cause a temporary beneficial impact on the economics and employment of the Project area.

The modeling input was based on the Project's estimated initial capital cost of \$1.14 billion for Project construction, expenditures of \$8.04 million for locally-purchased materials, and an average direct construction employment of 354 workers, having a combined payroll of \$140.45 million. IMPLAN Pro Sector 41<sup>1</sup> (Other New Construction, Power Plants) was used for this analysis, and economic estimates were based on 2007 dollars.

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<sup>1</sup> Sector 41, Other New Construction, Power Plants, is considered the most appropriate modeling matrix, based on consultation with the Minnesota IMPLAN Group (MIG), Inc.

The estimated indirect and induced employment from Imperial, Riverside, and San Diego counties during construction of the Solar Two Project are 13 and 301 jobs, respectively. These additional jobs result from the \$2.41 million<sup>2</sup> in local construction expenditures, as well as approximately \$42.1 million<sup>3</sup> in payroll. Assuming an average direct construction employment of 354, the employment multiplier associated with the construction of Solar Two is approximately 1.89  $([354 + 13 + 301]/354)$ . The Project construction employment multiplier is based on a Social Accounting Matrix (SAM) type model. The additional jobs would result from local construction expenditures as well as from spending by local construction workers. The secondary jobs are expected to be filled both locally and regionally.

Indirect and induced income impacts were estimated at \$712,230 and \$12,308,844, respectively. Based on the total annual local construction expenditure (payroll and materials and supplies) of \$44.5 million (\$42,136,214 in payroll and \$2,411,748 in supplies), the Project income multiplier based on a Type SAM model is 1.29. The multiplier was calculated as:  $([\$44,547,962 + \$712,230 + \$12,308,844]/\$44,547,962)$ .

The Project's output describes the value of production by the industry. Output includes spending for materials and supplies (non-labor costs), plus value added, which is comprised of employee compensation, proprietary income, other property income, and indirect business taxes. The Solar Two Project's indirect and induced outputs for dollars generated by other industries supplying construction of power facilities were estimated at \$1,708,920 and \$38,106,235, respectively. The Project output multiplier based on a Type SAM model is 1.72, which was determined from  $([\$55,272,152 + \$1,708,920 + \$38,106,235]/\$55,272,152)$ .

### Indirect and Induced Effects from Project Operation

Similar to Project construction, operation of the Solar Two Project would result in indirect and induced economic effects occurring within Imperial, Riverside, and San Diego counties. The affected Project region during operation was determined based on (1) the available labor force within reasonable commuting distance to serve the operation and maintenance of the Project, and (2) locations where operations and maintenance supplies and materials are expected to be purchased. Unlike construction indirect and induced effects, operational indirect and induced effects represent permanent increases in the area's economic variables. These effects would lag behind direct effects by 6 to 12 months.

Because Phase I of the Project commences operation 1 year before Phase II, indirect and induced economic effects were modeled for the first year of operation (i.e., operation of Phase I) and the second year of operation, which entails the operation of both Phase I and Phase II of the Project.

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<sup>2</sup> \$2.41 million is the annual portion of the total local construction expenditures (\$8.04 million) that is assumed to remain in the Project area. The annual portion of total expenditures =  $\$8.04 \text{ million} \times (12 \text{ months}/40 \text{ months}) = \$2.41 \text{ million}$ .

<sup>3</sup> \$42.1 million is the annual portion of the total construction payroll (\$140,454,046), where workers are expected to originate from Imperial, San Diego, and Imperial counties. The annual portion of the total construction payroll =  $\$140,454,046 \times (12 \text{ months}/40 \text{ months}) = \$42,136,213.80$ .

Phase I Operation. The modeling input was based on an estimated annual operations and maintenance budget of about \$9.9 million, operation expenditures of \$5 million for locally purchased materials, and an average direct employment of 164 personnel, having a combined payroll of \$4.9 million. IMPLAN Pro Sector 30 (Power Generation and Supply) was used for this analysis, and economic estimates were based on 2007 dollars.

Operation of Phase I will generate a permanent beneficial effect by creating employment opportunities for local workers through local expenditures for materials, supplies, and services. The resulting indirect and induced employment effects of the Solar Two Project's first year of operation occurring in Imperial, Riverside, and San Diego counties would be 11 and 34 jobs, respectively. These additional jobs result from the \$5 million in operations expenditures and the \$4.9 million in payroll. Assuming a direct operation employment of 164, the employment multiplier associated with the operation of the Solar Two Project is 1.28, which was derived as follows:  $(164 + 11 + 34)/164$ . The Project operation employment multiplier is based on a Type SAM model.

Indirect and induced income effects are estimated at \$625,918 and \$1,398,397, respectively. Based on the total local operation expenditure (payroll and materials and supplies) of \$9.9 million (\$4.9 million in payroll and \$5 million in supplies during the first year, the income multiplier associated with the first year of operation is 1.2  $(\$9,900,000 + \$625,918 + \$1,398,397)/\$9,900,000$ ), and is based on a Type SAM multiplier.

The Solar Two Project's indirect and induced outputs during the first year were estimated at \$1,602,413 and \$4,311,159, respectively. The Project output multiplier based on a Type SAM model is 1.36, which was generated as follows:  $(\$16,563,565 + \$1,602,413 + \$4,311,159)/\$16,563,565$ .

Phase I and Phase II Operations. The following analyses apply to the second year of operation, which involves the operation of Phase I and Phase II of the Project. The modeling input was based on an estimated annual operations and maintenance budget of about \$14.5 million, operation expenditures of \$7.4 million for locally purchased materials, and an average direct employment of 277 personnel, having a combined payroll of \$7.1 million. IMPLAN Pro Sector 30 (Power Generation and Supply) was used for this analysis, and economic estimates were based on 2007 dollars.

Similar to the first year of operation, operation during the second year will generate permanent beneficial effects by creating employment opportunities for local workers through local expenditures for materials, supplies, and services. The resulting indirect and induced employment effects of the Solar Two Project's second year of operation (i.e., operation of Phase I and Phase II) occurring in Imperial, Riverside, and San Diego counties would be 16 and 50 jobs, respectively. These additional jobs result from the \$7.4 million in operations expenditures and \$7.1 million in payroll. Assuming a direct operation employment of 277, the employment multiplier associated with the second year of operation of the Solar Two Project is 1.24, which was derived as follows:  $(277 + 16 + 50)/277$ . This Project construction employment multiplier is based on a Type SAM model.

Indirect and induced income effects are estimated at \$926,918 and \$2,031,981, respectively. Based on the total local operation expenditure (payroll and materials and supplies) of \$14.5 million (\$7.1 million in payroll and \$7.4 million in supplies for operation of both phases), the income multiplier associated with the operation and maintenance of the Project is approximately 1.2 ( $[\$14,500,000 + \$926,918 + \$2,031,981]/\$14,500,000$ ), and is based on a Type SAM multiplier.

The Solar Two Project's indirect and induced outputs during the second year were estimated at \$2,372,974 and \$6,264,459, respectively. The Project output multiplier based on a Type SAM model is 1.36, which was generated as follows:  $(\$24,266,598 + \$2,372,974 + \$6,264,459)/\$24,266,598$ .

### *Property Tax Exemption*

The average property tax rate in the area of the Project Site is approximately 1.25 percent. According to Section 73 of the California Revenue and Taxation Code, a property tax exemption is allowed for certain types of solar energy systems.

(The original expiration year of 2005 was extended by California Assembly Bill 1099 [2005].) Solar Two is expected to be allowed a 100 percent Property Tax Exemption as part of the California Incentives for Renewables and Efficiency. This exemption would remove the potential for County and Local Property Tax Revenues to be derived from the Solar Two Project.

Qualifying active solar energy systems are defined as those that “are thermally isolated from living space or any other area where the energy is used, to provide for the collection, storage, or distribution of solar energy.” These include solar space conditioning systems, solar water heating systems, active solar energy systems, solar process heating systems, photovoltaic systems, solar thermal electric systems, and solar mechanical energy.

Components included under the exemption include storage devices, power conditioning equipment, transfer equipment, and parts. Pipes and ducts that are used to carry both solar energy and energy derived from other sources qualify for the exemption only to the extent of 75 percent of their full cash value. Likewise, dual-use equipment for solar-electric systems qualifies for the exemption only to the extent of 75 percent of its value.

According to the Imperial County Tax Auditor's Office, the County General Fund property tax revenue for July 2008 was \$11,655,956. The overall tax revenue for all jurisdictions is \$100,780,942. The projected property tax revenues will not be available until late September.

Any revenues derived from the property value of the Project will be assessed by the State Board of Equalization and distributed accordingly. The local tax distribution within the tax areas for the Project area (069-007 and 069-008) are shown in Table 5.10-10, Local Area Tax Distribution.

**Table 5.10-10  
Local Area Tax Distribution**

<b>TRA</b>	<b>Tax Code</b>	<b>Value Base</b>	<b>Bill Rate Percent</b>	<b>Description</b>
069-007	00001	7	1.000000	1 percent full value
069-007	38300	7	0.022400	Imperial Community College Board 2004
069-007	38400	7	0.039300	Imperial Unified Board 2004
069-007	38500	7	0.035400	Imperial Unified Board 1995
<b>TRA 069-007</b>		<b>7</b>	<b>1.097100</b>	<b>Net of All</b>
069-008	00001		1.000000	1 percent full value
069-008	38300		0.022400	Imperial Community College Board 2004
069-008	38400		0.039300	Imperial Unified Board 2004
069-008	38500		0.035400	Imperial Unified Board 1995
<b>TRA 069-008</b>		<b>7</b>	<b>1.097100</b>	<b>Net of All</b>

Source: Imperial County Multi-Year Tax Rates, 2007.

Note:

TRA = Tax Rate Area

### 5.10.2.5 Utilities

Construction and operation of the Solar Two Project is not expected to lead to a significant increase in the permanent population of the Ocotillo/Nomirage or surrounding areas. As a result, emergency and social services will not be negatively impacted. The current use levels of public services, including fire protection, law enforcement, emergency response, medical facilities, other assessment districts, are adequate and there is no anticipation that there will be the need for any expansion. However, the Imperial County General Plan indicates that water cost and lack of public utilities are limiting factors for agricultural and residential development within the Ocotillo/Nomirage planning area.

The expansion of utilities, gas, water, and waste services necessary for the Solar Two Project is not expected to lead to significant effects to socioeconomics. Although utilities are proposed (see Section 3.0, Project Description and Location, for a detailed description of proposed ancillary features, including utilities), these are not expected to induce a substantial increase in demand for public services and utilities (for a detailed description of utilities use see Section 5.5, Water Resources, and Section 5.14, Waste Management).

Project employees who live in the residential areas of El Centro and Imperial may rely on local services. The county estimates that present growth rates are supported by the availability of water.

### *5.10.2.6 Emergency Services*

The Project Site is located in a remote area in Imperial County, California. The nearest hospital is El Centro Regional Medical Center, located in El Centro, California. This is approximately 15 miles from the Project Site and could take an estimated 14 minutes to reach. Another emergency service provider is Pioneers Memorial Healthcare; a full-service facility located approximately 28 miles northeast of the Project Site in the City of Brawley.

The Project Site is located within Imperial County Emergency Medical Services (EMS) Area 1. Area 1 is located north of United States Highway 98 to the Superstition Mountains. There is a full-time fire station in Ocotillo with basic life support capability, and on 1 July 2008 an advanced life support ambulance station is opening in Ocotillo. Overall there are seven advanced life support ambulances in the area, available to respond in worst-case scenarios. EMS is provided by one private ambulance service within the area of the Project Site, Gold Cross Ambulance Service. A proposal to build an additional response house, near the Centinela State Prison, is pending. The estimated EMS response time for the Ocotillo/Nomirage planning area is 10 to 25 minutes.

In the event of a life threatening injury, air support is directed through the Imperial County Sheriff's Department, which will coordinate with local agencies. In mid-July 2008, air support will be provided by Reach Air, which has major trauma treatment capability. Emergency air lift services can be provided locally in the City of Brawley, in San Diego County, and from as far away as Yuma, Arizona, depending on the availability of emergency air response equipment and crews.<sup>4</sup>

Fire protection for the Project Site is provided by the El Centro Fire Department Prevention Division, located at 900 South Dogwood, El Centro, California. The El Centro Fire Department Prevention Division will provide primary fire protection, firefighting, and emergency response services to the Project Site. The estimated response time to the Project Site is 20 to 30 minutes. The Project will also have its own on-site fire protection systems consisting of portable and fixed fire-suppression equipment and systems. The fixed fire protection system will include a wet, water-based sprinkler fire-suppression system and the portable systems will consist of strategically placed portable fire extinguishers located throughout the Project Site. Along with the on-site fire protection systems, the employees will be given safety training courses in fire prevention and the proper use of the portable extinguishers and hose stations. Solar Two will work with fire department engineers to incorporate any necessary fire prevention measures into final design. The county sheriff serves the Ocotillo/Nomirage planning area. Response can be delayed due to distance. The California Highway Patrol serves most of the major rural roads in the vicinity of the Project Site.

The Project does not expect to add significantly to the population of the Ocotillo/Nomirage planning area, so EMS and other emergency services within the area will not experience significant effects.

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<sup>4</sup> Imperial Office of Emergency Services, 760-482-2400, Rosa Hernandez and Gold Cross Ambulance Service, 760-353-3380, John Goodall.

According to consultation with Ryan Kelly, EMS Administrator and Bioterrorism Manager for Imperial County, EMS services within the populated centers within the region can accommodate the additional load resulting from the Project's temporary construction employees and permanent operational employees.

#### *5.10.2.7 Environmental Justice*

In response to Executive Orders 12250 and 12898, the California Energy Commission (CEC) is required to consider environmental justice claims in the siting process. President Carter signed Executive Order 12250 in 1980; this order directed federal agencies to adopt "disparate impact" regulations. Disparate impacts may be claimed if a minority community can demonstrate unique, different, and negative effects on their population, as a result of the actions of a state's permitting agency (Scoll 2003).

Executive Order 12898 directs each federal agency and state agencies such as the CEC that receive federal assistance to "make environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high or adverse human health effects of its programs, policies, and activities on minority populations and low-income populations...." For this reason, the CEC considers a "high and adverse" environmental or health effect that disproportionately falls on a minority or low-income population in its analysis of environmental justice.

The Environmental Protection Agency published guidelines for addressing environmental justice concerns (EPA Guidance 1997) emphasizes the importance of selecting an analytical approach that is appropriate to the unique circumstances of the community potentially affected by a Project. The guidance also encourages the analyst to apply best judgment when drawing conclusions on whether the Project may affect a low-income population disproportionately.

#### *5.10.2.8 Environmental Justice Screening Analysis*

The environmental justice screening analysis assesses whether "the potentially affected community includes minority and/or low income populations." A minority and/or low-income population exists when the minority population exceeds 50 percent of the affected area's total population. Also, the screening analysis includes comparing the characteristics of the population residing near the Project versus the population located within the county surrounding the Project.

According to the 2006 census report, of the population of 160,301 for Imperial County, approximately 18 percent are white. The population of Hispanics or Latinos has slightly increased from 72 percent in 2000 to 75.7 percent based on the findings in the 2006 census. While the population of Hispanics or Latinos is increasing, as a percentage this group is currently over-represented compared to statewide statistics.

Ocotillo/Nomirage qualifies as economically disadvantaged, with approximately 60 percent (see Figure 5.10-1, Income Distribution Maps) of the population consisting of low-income households. The rising cost of housing in more central locations within the county has made land within these outlands more desirable, and low-income households are drawn to the low costs of land and housing within this planning area compared to the costs in the overall region. However, the community sewage and disposal system needed for high-density housing is currently lacking and would be required to sustain further growth in the area.

The Solar Two Project Site is located in a sparsely populated area of relatively low income within Imperial County. However, in terms of ethnic composition this area is typical of the county at large, which consists of a high percentage of Hispanic and Latino populations compared with other counties in California. When compared to the rest of the county, this area is set apart by the relatively low incomes earned by the households in the area, but not by any concentration of a minority population.

The lower incomes in the area can be attributed to the lower wages originating in the agricultural activities of the area and the lack of other job opportunities. However, the purpose of Executive Order 12898 is to prevent “disproportionately high or adverse human health effects of its programs, policies, and activities on minority populations and low-income populations.” The operation of the Project will not create risk for adverse human health effects to local populations. Also, the Solar Two Project does not pollute and uses minimal hazardous materials in the construction, operation, and maintenance phase. Therefore, the Project does not conflict with this executive order and will not result in a disproportionately high adverse health effect to this community.

### 5.10.3 Cumulative Effects

Solar Two and other projects in the vicinity are not expected to result in significant cumulative effects to environmental resource areas, including, but not limited to, air quality, land use, cultural resources, water resources, or traffic during construction or operation and maintenance of the Project. Reasonably foreseeable future activities, including development (residential, commercial, and roadway), other renewable energy projects, agriculture, and military activities would continue to provide job opportunities in the region. The duration of future jobs and projects cannot be determined at this time, nor can the housing effects.

The increase in permanent employees in the area resulting from the Project is expected to have a significant beneficial effect on the local economy by introducing jobs and by potentially raising tax revenues. It is likely that future projects would contribute beneficially to the socioeconomic environment of the region. The Project would not displace any current jobs, nor affect the surrounding agricultural enterprises.

The Project would result in the elimination of any open routes that cross the Project area and any access that they provide. Should other future projects within the area result in similar closures, there may be a reduction in recreational users visiting the area, which would decrease the influx of recreational dollars. Should OHV closures occur throughout the region, this could result in significant effects to socioeconomic resources due to a decrease in recreational tourism dollars. However, the contribution of the Project to cumulative effects within the region is likely to result in significant beneficial effects considering the number of full-time employees who would be needed to operate the Project.

No significant adverse cumulative effects have been identified as a result of the construction, operation, maintenance, or long-term presence of the Solar Two Project and other projects in the area. For further discussion of cumulative effects, see Section 5.18, Cumulative Effects.

**5.10.4 Mitigation Measures**

No significant adverse effects to the socioeconomic environment are expected due to construction and operation of the Solar Two Project. Conversely, several benefits to the socioeconomic environment of Imperial County may be realized through the development of the Project. For this reason, mitigation measures are assumed to be inherent in the nature of the Project. The Project will result in increased jobs, increased revenue from sales tax, and decreased reliance on imported energy. The Project will help position California to meet the goal of obtaining 20 percent of its energy portfolio from renewable sources. Solar energy is non-polluting and will not result in trade-offs in health impacts for the benefits it provides. Additionally, collateral positive effects include an example for area educational institutions to study large-scale solar technology and a local solar technology knowledge center. Such effects could contribute to advances in the industry and return additional benefits to the local area by creating a regional industrial cluster. Therefore, no additional mitigation measures are identified for socioeconomic resources.

**5.10.5 Compliance with LORS**

The LORS applicable to socioeconomics and their conformance measures are detailed in Table 5-10-11, Summary of LORS – Socioeconomics.

**Table 5.10-11  
Summary of LORS – Socioeconomics**

<b>LORS</b>	<b>Requirements</b>	<b>Conformance Section</b>	<b>Administering Agency</b>	<b>Agency Contact</b>
<b>Federal Jurisdiction</b>				
National Environmental Policy Act of 1969/ Bureau of Land Management	Comply with the combined EIR/EIS process.	Section 5.10.5.1	Bureau of Land Management	Lynda Kastoll 1661 South 4 <sup>th</sup> Street El Centro, CA 92243 760-337-4421
<b>State Jurisdiction</b>				
California Government Code Title 7, Division 1, Chapter 3, Article 5, Section 65302	Each city and county is required to develop a General Plan to guide planning and development within a given jurisdiction.	Section 5.10.5.2	Imperial County Planning Department	Jurg Hueberger 800 Main Street El Centro, CA 92243 760-482-4236
California Revenue and Taxation Code, Section 73	A property tax exemption is allowed for certain types of solar energy systems installed on or before 31 December 2009.	Section 5.10.2.2	California State Board of Equalization	David Young California State Board of Equalization Property Tax Division 916-445-4982

**Table 5.10-11  
Summary of LORS – Socioeconomics**

<b>LORS</b>	<b>Requirements</b>	<b>Conformance Section</b>	<b>Administering Agency</b>	<b>Agency Contact</b>
<b>Local Jurisdiction</b>				
Imperial County General Plan Geothermal/Alternative Energy and Transmission Element Policy C13	Encourage educational institutions and industrial companies to offer appropriate courses and training programs.	Section 5.10.2.1	Imperial County Planning Department	James Minnick 800 Main Street El Centro, CA 92243 760-482-4236
Imperial County General Plan Geothermal/Alternative Energy and Transmission Element Policy C15d	Encourage development of alternative energy resources for economic development in Imperial County.	Section 5.10.1.4	Imperial County Planning Department	Richard Cabanilla 800 Main Street El Centro, CA 92243 760-482-4236
Imperial County General Plan Geothermal/Alternative Energy and Transmission Element Policy E2	Develop and maintain proper operating procedures, disposal of hazardous wastes and an Emergency Response Plan.	Section 5.10.2.4	Imperial County Planning Department	James Minnick 800 Main Street El Centro, CA 92243 760-482-4236
Imperial County General Plan Seismic and Safety Element Objective 1.6	Ensure environmental hazards are considered when siting critical facilities.	Section 5.10.2.4	Imperial County Planning Department	James Minnick 800 Main Street El Centro, CA 92243 760-482-4236
Imperial County General Plan Seismic and Safety Element Objective 2.1	Ensure the adequacy of existing emergency preparedness and evacuation plans to deal with identified hazards and potential emergencies.	Section 5.10.2.4	Imperial County Planning Department	James Minnick 800 Main Street El Centro, CA 92243 760-482-4236
Imperial County General Plan Seismic and Safety Element Objective 2.8	Prevent and reduce death, injuries, property damage, and economic and social dislocation resulting from natural hazards including flooding, land subsidence, earthquakes, other geologic phenomena, levee or dam failure, urban and wildland fires and building collapse by appropriate planning and emergency measures.	Section 5.10.2.4	Imperial County Planning Department	James Minnick 800 Main Street El Centro, CA 92243 760-482-4236
Imperial County General Plan Seismic and Safety Element Objective 3.4	Implement ordinances, policies, and guidelines that assure the safety of County ground and surface waters from toxic or hazardous materials and wastes.	Section 5.10.2.6	Imperial County Planning Department	James Minnick 800 Main Street El Centro, CA 92243 760-482-4236

**Table 5.10-11  
Summary of LORS – Socioeconomics**

<b>LORS</b>	<b>Requirements</b>	<b>Conformance Section</b>	<b>Administering Agency</b>	<b>Agency Contact</b>
Imperial County General Plan Land Use Objective 2.1	Achieve a balanced and diversified local economy with a variety of economic and employment opportunities.	Section 5.10.1.5	Imperial County Planning Department	James Minnick 800 Main Street El Centro, CA 92243 760-482-4236
Imperial County General Plan Land Use Objective 2.3	Continue to evaluate economic development strategies, including new industrial, commercial, and tourist-oriented land uses. Tourist-oriented uses must be compatible with BLM management goals in areas near BLM-administered public lands.	Sections 5.10.1.4 and 5.10.1.5	Imperial County Planning Department	James Minnick 800 Main Street El Centro, CA 92243 760-482-4236
Imperial County General Plan Land Use Objective 3.1	Maintain and improve the quality of life, the protection of property and the public health, safety, and welfare in Imperial County.	Sections 5.10.2.6 and 5.10.3	Imperial County Planning Department	James Minnick 800 Main Street El Centro, CA 92243 760-482-4236

Source: URS Corporation, 2008.

Notes:

- BLM = Bureau of Land Management
- EIR = Environmental Impact Report
- EIS = Environmental Impact Statement
- LORS = laws, ordinances, regulations, and standards

**5.10.5.1 Federal**

***National Environmental Policy Act of 1969***

The National Environmental Policy Act of 1969 (NEPA) establishes a public, interdisciplinary framework for federal decision making and ensures that agencies (the Bureau of Land Management [BLM] and all other agencies) take environmental factors into account when considering federal actions. NEPA does not mandate protection of the environment. Instead, it requires agencies to follow a particular process in making decisions and to disclose the information and data that were used to support those decisions.

NEPA mandates that each agency develop procedures for implementing the basic NEPA requirements. The agencies’ procedures are adopted as federal regulations after input from the public and approval of the Council on Environmental Quality. Agencies can also develop policy to complement their regulations.

NEPA requires agencies to follow a three-step review process, as presented below.

1. Conduct a preliminary screening for NEPA’s applicability (NEPA is not required for proposed actions that are considered “categorical exclusions,” for example).

2. Prepare an Environmental Assessment to determine whether an Environmental Impact Statement (EIS) is required.
3. Prepare an EIS if required (an EIS is required if a proposed action may “significantly affect the quality of the human environment”).

For BLM, developing or revising a Risk Management Plan automatically requires an EIS. Amending a Risk Management Plan requires an Environmental Assessment and may or may not require an EIS.

### *California Desert Conservation Act*

The management principles contained in the Federal Land Policy and Management Act are achieved through the implementation of the California Desert Conservation Area (CDCA) Plan. The specific intent of the CDCA Plan is to recognize that the California Desert is not a wasteland but a precious public resource and to effectively guarantee its management so that the uses of today do not preclude the users of tomorrow, and that the assets of the CDCA are preserved and developed wisely with full regard for their social, environmental, and economic values. The BLM manages the CDCA to include economic, educational, scientific, and recreational use, in a manner that enhances and does not diminish the environmental, cultural, and aesthetic values of the California Desert and its productivity.

The CDCA Plan ensures that use of the public lands and resources contained within the CDCA upholds the management principles prescribed by the Federal Land Policy and Management Act. These management principles include multiple use, sustained yield, and the maintenance of environmental quality. The BLM shall achieve the principles and goals of the CDCA through the direction given for management actions and resolution of conflicts. Direction is stated first on a geographic basis, in the guidelines for each of the four multiple-use classes. Within those multiple-use class guidelines, further refinement of direction is expressed in each plan element. Direction is also expressed in certain site-specific plan decisions, such as Areas of Critical Environmental Concern.

#### *5.10.5.2 State*

California State Planning Law (Title 7, California Government Code, Division 1, Chapter 3, Article 5, Section 65302) requires that each city and county adopt a general plan, consisting of seven mandatory elements, to guide planning and development within the jurisdiction concerning desirable future physical development. As with most jurisdictions, the Imperial County General Plan does not have specific LORS addressing the socioeconomic aspects of a project.

#### *5.10.5.3 Local*

Locally applicable LORS arise from the tax auditor and the general plan. The tax auditor will implement the tax rates and distribution for dispersal of tax revenues from the Project, and the general plan determines jurisdictional policy for the Project. In regards to socioeconomics, the general plan calls for the pursuance of economic development activities that will benefit the economy while maintaining the quality of life. It discourages industrial development that causes pollution but is in support of development of solar power systems as commercial energy enterprises where visual and environmental effects can be mitigated. On the one hand, there is

support for job growth and economic inputs, while on the other hand industrial development is discouraged due to the perceived likelihood of pollution and other deleterious effects. The Solar Two Project does not involve the potential for harmful health effects to the local population, but it is a large scale industrial development. Further attention is given within the Imperial County General Plan to encouragement of sustainable development patterns. The socioeconomic policy surrounding the sustainable development of solar renewable energy in the Ocotillo/Nomirage planning area and the portions of Imperial County where the Project is located requires a series of trade-offs and compromises within the framework of the General Plan. Therefore, the relevant sections of the general plan are referred to in Table 5.10-11, Summary of LORS – Socioeconomics.

**5.10.5.4 Agencies and Agency Contacts**

Table 5.10-12, Agency Contact List for LORS, provides the agency contacts for relevant LORS.

**Table 5.10-12  
Agency Contact List for LORS**

	<b>Agency</b>	<b>Contact</b>	<b>Address</b>	<b>Telephone</b>
1	City of El Centro Fire Department	Fire Chief Chris Petree	775 State Street El Centro, CA 92243	760-337-4530
2	Imperial County Assessor’s Office	Roy D. Buckner	940 West Main Street El Centro, CA 92243-2839	760-482-4244
3	Imperial County Auditor’s Office	Douglas R. Newland	940 West Main Street El Centro, CA 92243-2839	760-482-4556
4	Imperial County – Treasurer, Tax Collector	Karen Vogel	940 West Main Street El Centro, CA 92243-2839	760-482-4301
5	California State Board of Equalization	NA	1550 West Main Street El Centro, CA 92243-2832	760-352-3431
6	Imperial High School	Lisa Tabarez	517 West Barioni Boulevard Imperial, CA 92251	760-355-3220
7	Frank Wright Middle School	Diego Lopez	885 North Imperial Avenue Imperial, CA 92251	760-355-3240
8	Ben Hulse Elementary	Jerry Johnson	303 South D Street Imperial, CA 92251	760-355-3210
9	T.L. Waggoner Elementary	Steve Cato	627 Joshua Tree Street Imperial, CA 92551	760-355-3266
10	Westside Elementary	Nancy Rood	2294 West Vaughn Road El Centro, CA 92243	760-355-3208
11	Imperial Avenue Holbrook High School	Kerry Legarra	322 North Imperial Avenue Imperial, CA 92251	760-355-3207
12	Imperial Unified School District	Kay McAllaster	219 North E Street Imperial, CA 92251	760-355-3013
13	Imperial Unified School District	Madeline Willis	219 North E Street Imperial, CA 92251	760-355-3200
14	Imperial County Office of Emergency Services	Rosa Hernandez	1078 Dogwood Road Herber, CA 92249	760-482-2400
15	Imperial County Public Health/Emergency Medical Services	Ryan Kelly	935 Broadway El Centro, CA 92243	760-482-2974

**Table 5.10-12  
Agency Contact List for LORS**

	Agency	Contact	Address	Telephone
16	Gold Crest Ambulance Services	John Goodall	905 South Imperial Avenue El Centro, CA 92243	760-353-3380

Source: URS Corporation, 2008.

Notes:

LORS = laws, ordinances, regulations, and standards

NA = not applicable

### 5.10.5.5 Permits Required and Permitting Schedule

Table 5.10-13, Applicable Permits, provides the responsible agencies for the required permits/approvals.

**Table 5.10-13  
Applicable Permits**

Responsible Agency	Permit/Approval	Schedule
Imperial County	Conditional Use Permit	To be announced
Bureau of Land Management	Amendment to California Desert Conservation Area	12 months
California Energy Commission	Certification	12 months

Source: Imperial County Department of Planning and Building, 2008.

### 5.10.6 References

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Adequacy Issue:		Adequate	Inadequate	DATA ADEQUACY WORKSHEET		Revision No.	0	Date	
Technical Area:		Socioeconomics		Project: Solar Two		Technical Staff:			
Project Manager:		Docket:		Docket:		Technical Senior:			
SITING REGULATIONS		INFORMATION		AFC SECTION NUMBER		ADEQUATE YES OR NO		INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS	
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.			Section 5.10.1 Section 5.10.1.1 Section 5.10.1.2 Section 5.10.2 Section 5.10.2.1 Section 5.10.2.2 Section 5.10.2.3 Section 5.10.2.4 Section 5.10.2.6 Section 5.10.3 Section 5.10.4					
Appendix B (g) (7) (A)	A description of the socioeconomic circumstances of the vicinity and region affected by construction and operation of the project. Include:			Section 5.10.1 Section 5.10.1.2 Section 5.10.2.1 Section 5.10.2.2					
Appendix B (g) (7) (A) (i)	The economic characteristics, including the economic base, fiscal resources, and a list of the applicable local agencies with taxing powers and their most recent and projected revenues;			Section 5.10.1.3 Section 5.10.2.3 Table 5.10-10 Table 5.10-12					
Appendix B (g) (7) (A) (ii)	The social characteristics, including population and demographic and community trends;			Section 5.10.1 Section 5.10.2.2					
Appendix B (g) (7) (A) (iii)	Existing and projected unemployment rates;			Section 5.10.1.3					
Appendix B (g) (7) (A) (iv)	Availability of skilled workers by craft required for construction and operation of the project;			Section 5.10.1.3 Section 5.10.2 Section 5.10.2.1 Section 5.10.2.2					
Appendix B (g) (7) (A) (v)	Availability of temporary and permanent housing and current vacancy rate; and			Section 5.10.1.2					

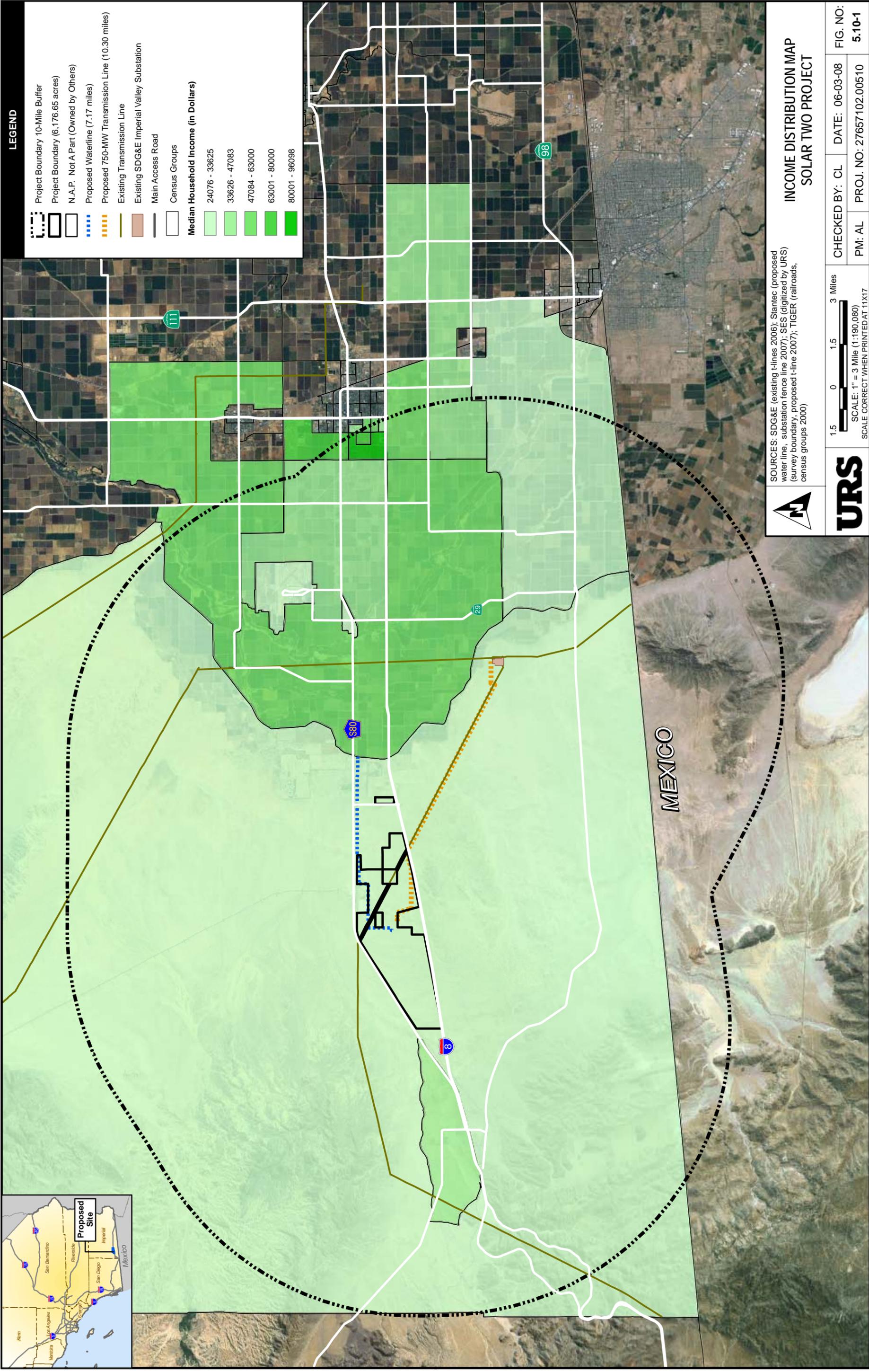
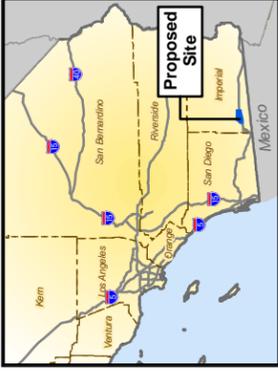
Adequacy Issue:		Adequate	Inadequate	DATA ADEQUACY WORKSHEET		Revision No.	0	Date
Technical Area:		Socioeconomics		Project:		Technical Staff:		
Project Manager:				Docket:		Technical Senior:		
SITING REGULATIONS		INFORMATION		AFC SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS		
Appendix B (g) (7) (A) (vi)	Capacities, existing and expected use levels, and planned expansion of utilities (gas, water and waste) and public services, including fire protection, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. For projects outside metropolitan areas with a population of 500,000 or more, information for each school district shall include current enrollment and yearly expected enrollment by grade level groupings, excluding project-related changes for the duration of the project schedule.			Section 5.10.2.3 Section 5.10.2.5 Section 5.10.2.6 Table 5.10-8 Table 5.10-9				
Appendix B (g) (7) (B)	A discussion of the socioeconomic impacts caused by the construction and operation of the project (note year of estimate, model, if used, and appropriate sources), including:			Section 5.10.2.1 Section 5.10.2.2 Section 5.10.3				
Appendix B (g) (7) (B) (i)	An estimate of the number of workers to be employed each month by craft during construction, and for operations, an estimate of the number of permanent operations workers during a year;			Section 5.10.2.2 Table 5.10-6 Table 5.10-7				
Appendix B (g) (7) (B) (ii)	An estimate of the percentage of non-local workers who will relocate to the project area to work on the project;			Section 5.10.2.1 Section 5.10.2.2				
Appendix B (g) (7) (B) (iii)	An estimate of the potential population increase caused directly and indirectly by the project;			Section 5.10.1.1 Section 5.10.1.2 Section 5.10.2.1 Section 5.10.2.6				
Appendix B (g) (7) (B) (iv)	The potential impact of population increase on housing during the construction and operations phases;			Section 5.10.1.2 Section 5.10.2.1 Section 5.10.3				

Adequacy Issue:		Adequate	Inadequate	DATA ADEQUACY WORKSHEET		Revision No.	0	Date
Technical Area:		Socioeconomics		Project:		Technical Staff:		
Project Manager:				Docket:		Technical Senior:		
SITING REGULATIONS		INFORMATION		AFC SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS		
Appendix B (g) (7) (B) (v)	The potential impacts, including additional costs, on utilities (gas, water, and waste) and public services, including fire, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. Include response times to hospitals and for police, and emergency services. For projects outside metropolitan areas with a population of 500,000 or more, information on schools shall include project-related enrollment changes by grade level groupings and associated facility and staffing impacts by school district during the construction and operating phases;			Section 5.10.2.1 Section 5.10.2.3 Section 5.10.2.4 Section 5.10.2.5 Section 5.10.2.6 Table 5.10-8 Table 5.10-9				
Appendix B (g) (7) (B) (vi)	An estimate of applicable school impact fees;			Section 5.10.2.3				
Appendix B (g) (7) (B) (vii)	An estimate of the total construction payroll and separate estimates of the total operation payroll for permanent and short-term (contract) operations employees;			Section 5.10.2.1 Section 5.10.2.2				
Appendix B (g) (7) (B) (viii)	An estimate of the expenditures for locally purchased materials for the construction and operation phases of the project;			Section 5.10.2.1 Section 5.10.2.2				
Appendix B (g) (7) (B) (ix)	An estimate of the capital cost (plant and equipment) of the project;			Section 5.10.2.1 Section 5.10.2.2				
Appendix B (g) (7) (B) (x)	An estimate of sales taxes generated during construction and separately during an operational year of the project;			Section 5.10.2.4				
Appendix B (g) (7) (B) (xi)	An estimate of property taxes generated during an operational year of the project; and			Section 5.10.2.4				

Adequacy Issue:		Adequate	Inadequate	DATA ADEQUACY WORKSHEET		Revision No.	0	Date
Technical Area:		Socioeconomics		Project:		Technical Staff:		
Project Manager:				Docket:		Technical Senior:		
SITING REGULATIONS		INFORMATION		AFC SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS		
Appendix B (g) (7) (B) (xii)	The expected direct, indirect, and induced income and employment effects due to construction, operation, and maintenance of the project.			Section 5.10.1.3 Section 5.10.2 Section 5.10.2.1 Section 5.10.2.2				
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and			Table 5.10-11				
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.			Table 5.10-12				
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.			Table 5.10-12				

Adequacy Issue:		Adequate	Inadequate	DATA ADEQUACY WORKSHEET		Revision No.	0	Date
Technical Area:		<b>Socioeconomics</b>		Project: Solar Two		Technical Staff:		
Project Manager:				Docket:		Technical Senior:		
<b>SITING REGULATIONS</b>		<b>INFORMATION</b>		<b>AFC SECTION NUMBER</b>		<b>ADEQUATE YES OR NO</b>		<b>INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS</b>
Appendix B (i) (3)		A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.		Table 5.10-13				





**LEGEND**

- Project Boundary 10-Mile Buffer
  - Project Boundary (6,176.65 acres)
  - N.A.P. Not A Part (Owned by Others)
  - Proposed Waterline (7.17 miles)
  - Proposed 750-MW Transmission Line (10.30 miles)
  - Existing Transmission Line
  - Existing SDG&E Imperial Valley Substation
  - Main Access Road
  - Census Groups
- Median Household Income (in Dollars)**
- 24076 - 33625
  - 33626 - 47083
  - 47084 - 63000
  - 63001 - 80000
  - 80001 - 96098

**SOURCES:** SDG&E (existing t-lines 2006); Stantec (proposed water line, substation fence line 2007); SES (digitized by URS) (survey boundary, proposed t-line 2007); TIGER (railroads, census groups 2000)



1.5 0 1.5 3 Miles  
 SCALE: 1" = 3 Mile (1:190,080)  
 SCALE CORRECT WHEN PRINTED AT 11X17

**INCOME DISTRIBUTION MAP**  
**SOLAR TWO PROJECT**

CHECKED BY: CL    DATE: 06-03-08    FIG. NO:  
 PM: AL    PROJ. NO: 27657102.00510    **5.10-1**

