

## 6.3 SOCIOECONOMICS

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As described in detail below, socioeconomic impacts of the Modified Project are expected to be less than or equal to those of the Approved Project and will remain less than significant.

### 6.3.1 Summary of Project Changes Related to Socioeconomics

Compared to PV technology, SunCatchers require additional personnel to assemble and install during construction, as well as additional personnel for washing and routine maintenance functions during operation. The Modified Project involves a replacement of SunCatchers with the use of PV modules. This change in technology results in a reduction in the average numbers of construction and operation employees for the Modified Project. However, the labor categories used during construction and operation of the Modified Project would be substantially similar to those of the Approved Project. In addition, the technology change requires lower maintenance (e.g., fewer moving parts, less frequent periodic part replacement, etc.) and, therefore, a reduction in annual local expenditures for supplies.

### 6.3.2 Changes in Environmental Impacts

The changes to socioeconomics under the Modified Project are evaluated below. Under the Modified Project, the Project location and conditions (including the regional context) would not change from those identified in the Approved Project. Table 6.3-1 below sets forth a list of certain costs, expenditures and employee numbers for both of the Approved Project and the Modified Project.

**TABLE 6.3-1  
ESTIMATED COSTS, EXPENDITURES AND EMPLOYEES**

<b>Item</b>	<b>Approved Project</b>	<b>Modified Project</b>
Capital Cost	\$1 Billion	\$1.9 Billion
Construction		
Approximate Total Payroll	\$159 Million	\$190 Million
Average Employees	400	340
Total Local Expenditure	\$8.4 Million	\$19 Million
Operation		
Approximate Annual Payroll	\$10.1 Million	\$2 Million
Average Employees	180	30
Annual Local Expenditure	\$8.4 Million	\$500,000

The calculation of total construction payroll is based on best professional judgment using past energy construction experience, which has shown that construction payroll is typically 10 percent of capital cost. Average construction employment is based on assumed wages and benefits for the various labor categories and staffing levels. Total local expenditures for construction are calculated based on market availability of components, materials and equipment.

Approximate annual operations payroll (hourly and salary) is calculated using assumed wages and benefits from prior plant operations staffing experience. Average operations employment is calculated to include labor categories typical for Project operations. Annual local expenditures for operations are based on budgeting experience associated with past power plant operations (e.g. fuel, solar equipment maintenance/facility supplies, etc.).

#### 6.3.2.1 Construction Impacts

The Commission concluded that the total labor by skill in the Riverside-San Bernardino-Ontario and Los Angeles County Metropolitan Statistical Areas is more than adequate to provide construction labor for the Approved Project (Commission Decision, Section VII, C, page 2).

Under the Modified Project, typical construction trades would be required, including concrete workers, electricians, maintenance and repair workers, carpenters, equipment operators, and laborers. Much of the work would involve installing PV modules. These construction trades correspond with the Federal Standard Occupational Classification (SOC) system categories. The SOC categories required for the Modified Project are qualitatively similar to those of the Approved Project.

As with the Approved Project, to the extent feasible, every effort would be made in the Modified Project to employ qualified subcontractors and construction personnel from the local area, and the majority of the labor force is expected to be hired locally (within daily commuting distance), and to commute daily to the Project site. Power plant construction workers would commute as much as two hours (one hour in each direction) to construction sites from their homes, rather than relocate (see Commission Decision, Section VII, C, page 2). The Commission found that because of the large labor force within commuting distance of the Project, the majority of construction workers would commute to the Approved Project daily from their existing residences (id.). This is also expected to be true for the Modified Project.

With the reduced number of construction workers required for the Modified Project, the total labor by skill in the regional labor market is more than adequate to provide construction labor for the Modified Project.

#### 6.3.2.1.1 Construction Impacts on Population, Housing, Schools, and Public Services

The Commission concluded that construction of the Approved Project would not adversely impact existing housing supply (or require new housing construction), schools, parks and recreation, law enforcement, hospitals, or emergency services in the local communities. The Commission also determined that an adequate supply of motels and rental properties would be available in the city of Barstow, and in San Bernardino and Riverside Counties to accommodate weekly commuters and/or temporary residents (Commission Decision, Section VII, C, pages 2 to 3). The reduced number of construction workers required under the Modified Project would be anticipated to result in no new or more severe impacts to the existing housing supply and local services.

#### 6.3.2.1.2 Indirect and Induced Construction Impacts on Economy and Employment

The Commission concluded that the results of an Impact Analysis for Planning (IMPLAN) model of the Approved Project showed that purchases by construction workers and permanent employees as well as Approved Project expenditures for materials and supplies would generate quantifiable secondary economic benefits that would likely occur if the Approved Project were developed (Commission Decision, Section VII, C, page 4).

Under the Modified Project, construction is expected to require an average of 340 construction workers, and result in an estimated \$19.025 million in expenditures for locally-purchased materials and supplies, which would result in secondary (indirect and induced) impacts. IMPLAN Professional Version 2.0.1025 was used to create an input/output model assessing the secondary economic impacts (indirect and induced impacts) resulting from the construction activities. The modeling impact was based on an estimated capital cost of \$1.875 billion, estimated expenditures of \$19.025 million for locally-purchased (i.e., San Bernardino County) materials and supplies, and 340 construction workers. The total construction worker salary under the Modified Project is estimated to be \$187.5 million.

Under the Modified Project, the resulting total indirect and induced effects of the construction occurring within San Bernardino County would be an additional 97 indirect and 1,268 induced jobs generated by the local construction expenditures and construction payroll, and approximately \$4,455,862 and \$47,056,752 in indirect and induced income impacts, respectively (based on the total local construction expenditure for payroll, materials, and supplies). The indirect and induced output for dollars generated for other industries supplying the power generation industry was estimated at \$12,732,140 and \$148,708,141, respectively. Dollar estimates are provided in 2011 dollars.

Therefore, the results of the IMPLAN analysis for the Modified Project indicated that the Modified Project, like the Approved Project, would be expected to generate temporary beneficial impacts to the San Bernardino County economy.

#### 6.3.2.1.3 Construction Impacts on Fiscal Resources

The Commission concluded that the construction payroll, local purchases of materials and supplies, and sales tax revenues generated by the expenditures associated with the Approved Project would have a temporary beneficial impact on the San Bernardino County economy (Commission Decision, Section VII, C, page 4). Under the Modified Project, estimated local expenditures of \$19.025 million for construction materials and supplies would exceed those expected of the Approved Project. Assuming a current San Bernardino County tax rate of 8.75 percent, the Modified Project would generate approximately \$416,172 in sales tax each year during construction. Therefore, like the Approved Project, the Modified Project would have a temporary beneficial impact on the San Bernardino County economy.

#### 6.3.2.2 Operations Impacts

Similar to its construction phase, the Modified Project would require typical operation trades, including electricians, maintenance and repair workers, operating engineers and other equipment operators. The number of operation and maintenance employees would gradually increase until Modified Project construction is completed (see Section 2.0 for a discussion of construction timing). Once both phases of the Project were completed, the Project would employ approximately 30 full-time workers.

The Modified Project expects to draw a majority of these operation employees from areas within a two-hour commute (one hour in each direction), including the cities of Barstow and Victorville, as well as smaller communities located in the Project vicinity. Some of the positions, primarily engineering occupations, may require individuals with specialized skills who may need to be recruited from larger statewide or national labor markets. Specialized personnel recruited from outside the region would likely relocate with their families to the area (within one hour commuting distance of the Project site).

#### 6.3.2.2.1 Operation Impacts on Population, Housing, Schools, and Public Services

The Commission concluded that 20 employees associated with operational jobs might be recruited from outside the immediate Project area and the relocation of some workers and their dependents would cause no expected adverse impacts on the local infrastructure or community services (Commission Decision, Section VII, C, page 3). To the extent feasible, every effort would be made to employ qualified operation personnel from the local area and the majority of the labor force was expected to be hired locally. However, the Modified Project might also require specialized personnel that might need to be recruited from outside the Project area. The reduced number of operation workers

required for the Modified Project would likely result in fewer effects on the local population. Operation of the Modified Project would not be expected to displace the existing population or physically divide an existing community.

The Commission concluded that some workers might relocate with their families to the Barstow area, with no expected adverse impacts on the local infrastructure or community services. Because of the large labor force within commuting distance of the Project, the majority of operation workers would commute to the Project daily from their existing residences. The Commission concluded that some workers might stay in local motels or other rental properties during the work week but return to their homes on weekends for the duration of their job assignments. The Commission determined that an adequate supply of motels and rental properties would be available in the city of Barstow, and in San Bernardino and Riverside Counties to accommodate weekly commuters and/or temporary residents (Commission Decision, Section VII, C, page 2). The Commission found that since Project-induced population changes would be minimal, operation of the Project would not result in significant adverse impacts on schools, parks and recreation, law enforcement, hospitals, or emergency services in the local communities (Commission Decision, Section VII, C, page 3). The reduced number of operation workers required for the Modified Project would be anticipated to result in fewer impacts to existing housing supply or community services.

#### 6.3.2.2.2 Indirect and Induced Operations Impacts on Economy and Employment

The Commission concluded that the results of an IMPLAN analysis showed that purchases by permanent employees, as well as Approved Project expenditures for materials and supplies, would generate quantifiable secondary economic benefits that would likely occur if the Project were developed (Commission Decision, Section VII, C, page 4).

Operation of the Modified Project is expected to require an average of 30 workers and approximately \$500,000 in expenditures for locally purchased materials and supplies during the first year of operation.

Therefore, the Modified Project, like the Approved Project, would be expected to generate long-term beneficial impacts on the San Bernardino County economy although less than that modeled for the Approved Project.

#### 6.3.2.2.3 Operations Impacts on Fiscal Resources

The Commission concluded that the payroll, local purchases, and sales tax revenues generated by the expenditures associated with the Approved Project would likely have long-term beneficial effects on the San Bernardino economy (Commission Decision, Section VII, C, page 3). Local purchases of materials, supplies, equipment, and services are estimated to total approximately \$500,000 per year once the Project is fully

operational (expected in 2016). Based on the current San Bernardino County tax rate of 8.75%, the Modified Project would generate approximately \$52,500 a year in sales tax. The Modified Project also would be expected to have long-term beneficial effects on the San Bernardino economy.

The Commission concluded that under existing state law, the Project is exempt from property taxes as a qualifying solar energy project (California Revenue and Taxation Code, Section 73; Commission Decision, Section VII, C, page 4). Components covered by this exemption would include storage devices, power conditioning equipment, transfer equipment, and parts related to the functioning of these items. The taxable value of the non-solar components analyzed for the Approved Project, which would include the proposed administrative offices, operation control room, and maintenance facilities, was estimated to be approximately \$20 million (Commission Decision, Section VII, C, page 4). The value of components under the Modified Project would be assessed when the Project is constructed. Assuming a current San Bernardino County property tax rate for the Project area of approximately 1.04 percent, using approximately \$20 million, the first operational year at full build out would generate approximately \$208,000 annually in property taxes on non-solar Project components.<sup>7</sup> These estimates were developed to provide an indication of the property tax revenues that would be generated by the Project. The Modified Project would be expected to continue to have long-term beneficial effects on the San Bernardino economy.

Under the Modified Project, additional tax revenue would be generated based on the rent paid to the BLM, according to BLM Instruction Memorandum (IM 2010-141), Solar Energy Interim Rental Policy. These rental provisions associated with the BLM ROW consist of two components: a base rent to be paid upon issuance of the authorization of the Project, and a MW capacity fee that would be implemented over a five-year period once the facility began generating electricity. The BLM solar energy ROW rental fees would generate additional tax revenue for the San Bernardino economy.

The BLM would calculate and bill the Calico Solar a base rent. This base rent was calculated for San Bernardino County based on land values published by the National Agricultural Statistics Service to establish rental fees for linear ROW facilities on public lands. The base rent is a per-acre fee that would be charged, regardless of the stage of development or operation, on the entire public land acreage described in the ROW authorization. The per-acre fee for San Bernardino County is \$125.56. The base rent for would be approximately \$438,518 per year.<sup>8</sup> Using this formula for the duration of the BLM lease of 30 years, the base rent would generate approximately \$14,505,532 (\$438,518 x 30) for the BLM. San Bernardino County would assess a possessory use tax on the entire base rent of approximately \$14,505,321. Based on a San Bernardino

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<sup>7</sup> The 2008 AFC and Commission Decision use a property tax rate of 1.1 percent (2008 AFC, page 5.10-30; Commission Decision, Section VII, C, page 4). However, a property tax rate of 1.04 percent is more reflective of the Project area currently.

<sup>8</sup> The Modified Project size of 3,851 acres was used to factor the lease with the BLM.

County property tax rate for the Project area of approximately 1.04 percent, this use tax would total approximately \$150,858 and would be assessed annually by the County. The total use tax assessed from the base rent of the 30-year lease is an estimate developed to provide an indication of possessory use tax revenues that are anticipated to be generated under the Modified Project. The BLM might adjust base rents each year and San Bernardino County tax rates would likely change. The approximate use tax generated by the Modified Project would be expected to continue to have significant long-term beneficial effects on the San Bernardino economy.

The BLM charges a MW capacity fee, in addition to the base rent, for each solar energy ROW application. The MW capacity fee captures the increased industrial use value of the authorization, above the limited rural/agricultural land value captured by the base rent. This capacity fee would be charged on an annual basis upon the start of generation of electricity from the facility. The BLM would provide for a five-year implementation of the MW capacity fee after the start of generation operations (at the rates of 20 percent the first year, 40 percent the second year, 60 percent the third year, 80 percent the fourth year, and 100 percent the fifth and subsequent years of operations). The MW capacity fee for PV is \$5,256 per MW and \$6,570 per MW.

Using these rates, the total annual fee upon 100 percent, or the fifth and subsequent years of operations, would approximate \$3.25 million for PV (\$5,256 x 618 MW) capacity fee for the BLM. San Bernardino County would assess a possessory use tax fee by applying this annual estimate times 30 years (the BLM ROW period) to represent the entire approximate value of the BLM MW capacity fee. Based on a San Bernardino County property tax rate for the Project area of approximately 1.04 percent, this MW capacity fee would total approximately \$34,000 in possessory use tax fees for the County. San Bernardino County would assess this entire value of \$34,000 annually. This possessory use tax is approximate, as the BLM would periodically review the efficiency factors for the various solar technologies and update the MW capacity fee to reflect improvements in technology and San Bernardino County tax rates would likely change.

Under the Modified Project, property tax (approximately \$208,000 annually) and possessory use taxes (approximately \$150,858 and \$34,000 annually) would represent approximately \$392,858 taxes annually for San Bernardino County. Therefore, like the Approved Project, the Modified Project is expected to result in significant long-term beneficial effects on the region.

### 6.3.2.3 Environmental Justice

The Commission concluded that there would be no environmental justice impacts related to the Approved Project. As with the Approved Project, no minority population or low-income population within a six-mile radius of the Modified Project would exceed the

50 percent threshold established in environmental justice guidance. As with the Approved Project, the Modified Project would not create disproportionate impacts on minority and/or low-income populations (see also Section 4.2, Air Quality for a discussion of the Project change as it relates to environmental health and air quality impacts). The Modified Project would result in no environmental justice impacts.

### **6.3.3 Changes in Cumulative Environmental Impacts**

The Commission Decision concluded that the Approved Project would not result in any significant cumulative impacts to socioeconomics. Incremental impacts of the Modified Project on socioeconomics are expected to be the same or slightly reduced compared to the Approved Project. As described in Section 1.4.1, Cumulative Scenario, no new reasonably foreseeable future actions beyond those assumed in the Commission Decision have been identified. Therefore, no increase in cumulative impacts under the Modified Project is anticipated.

### **6.3.4 Changes in LORS Conformance and Other Permits**

In its Commission Decision, the Commission concluded that, with the implementation of the Conditions, the Approved Project would comply with all applicable LORS. As with the Approved Project, the Modified Project would comply with all applicable LORS, and no new or additional LORS have been identified.

### **6.3.5 Changes in Proposed Mitigation**

No new or more severe impacts requiring additional mitigation would result from the Modified Project. The mitigation measures proposed in the Commission Decision would mitigate impacts associated with the Modified Project to levels that would be less than significant.

### **6.3.6 Changes in Conditions of Certification**

The Commission concluded that the Approved Project would not require Conditions for socioeconomics and environmental justice. As no additional mitigation would be required, the Modified Project would not result in new Conditions.