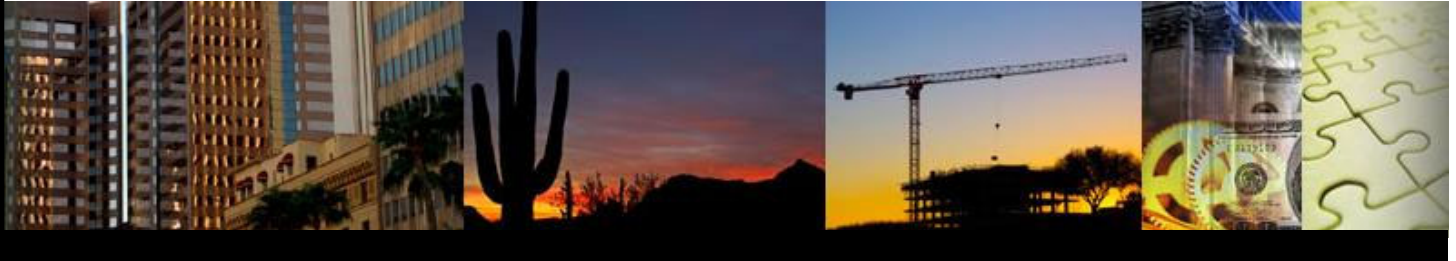


Mohave County Solar (Example Project) Economic Impact and Tax Revenue Analysis



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Summary of Impacts

The following report estimates the potential economic impacts and tax revenues that would be generated by a typical solar project located in Mohave County. This example solar power generating facility would sit on an estimated 1,200 acres and produce up to 200 MW of power and includes the addition of 200 MW of battery storage. The total capital cost of the project is estimated at \$528.0 million including construction costs and equipment. A facility of this size is generally in range with recent power purchase contracts announced by Arizona Public Service and Salt River Project, two of the state’s largest electric utilities.

About Elliott D. Pollack & Company

Elliott D. Pollack & Company has been in business for more than 30 years and is headed by one of Arizona’s most noted economists. The firm is known for its expertise in two primary areas – real estate and economics, with its primary practice in the State of Arizona. The firm has been employed by public institutions, state, county, and local governments, private entities, and Native American Communities, in a variety of assignments that include economic impact analyses, real estate market studies, forecasting, and public speaking at events around the State. In Mohave County specifically the firm has recently completed studies such a housing assessment for Bullhead City, a recreation plan for Lake Havasu City, Low Income Tax Credit market studies and an economic impact analysis of a proposed retail and hotel development.

Impact Summary

There is a common misconception that solar projects do not contribute to the economy nor generate tax revenues for local governments. This report will show that in the first year during construction an estimated \$1.1 million in tax revenues and 302 jobs would be created in the local economy from this example project. In addition, over the life of the project, more than \$28.1 million in tax revenue would be generated by personal property tax on equipment. These taxes would directly benefit the county, fire districts, school districts and other special districts such as flood control, library, and education districts. Furthermore, employees working on the project would spend money in the local economy, pay property taxes on the homes they occupy and contribute to state shared taxes for the County and local governments (\$1.7 million).

In total, this example Mohave County Solar Project would generate an estimated \$30.9 million in tax revenues during the life of the project.

Mohave County Solar Project Summary Impact

Construction related jobs	302
Taxes generated during construction	\$1.1 million
Personal property tax generated during life of project	
Mohave County and special districts	\$13.1 million
Local school districts	\$15.0 million
Tax revenues generated by employees	\$1.7 million
Grand total of taxes generated during life of project	\$30.9 million



Economic Impact and Tax Revenue Analysis

Economic Impacts

- Development would provide an immediate \$36.4 million in direct construction impact in the County, generating a direct, indirect and induced total of \$49.6 million in total economic impact from construction activity. This investment would create 302 construction and related jobs and \$15.2 million in wages over the projected 14-month construction schedule.
- Through the life of the project, an estimated \$392.8 million in economic activity would occur within the County’s economy.
- All totaled, the example solar project would create over \$442.5 million in economic activity within Mohave County during construction and 40 years of operations.

Economic Impact over Life of Project			
Mohave County Solar Project			
(2023 dollars)			
Construction			
Impact Type	Jobs	Wages	Economic Output
Direct	225	\$11,452,000	\$36,400,000
Indirect	35	\$1,672,000	\$6,152,000
Induced	42	\$2,061,000	\$7,084,000
Total	302	\$15,185,000	\$49,636,000
Operations			
Impact Type	Annual Jobs	Wages over 40 Yrs	Economic Output (40 yrs)
Direct	4	\$5,000,000	\$219,940,000
Indirect	5	\$16,996,000	\$154,080,000
Induced	3	\$5,488,000	\$18,816,000
Total	12	\$27,484,000	\$392,836,000
Source: Elliott D. Pollack & Company; IMPLAN			

Tax Revenues Generated

Construction and operations of the solar project would create significant tax revenue for Mohave County and other entities. While the project would be exempt from prime contracting transaction privilege tax (under ARS 42-5075(b)(7) and ARS 42-5061), there is still substantial value from solar equipment that would increase the personal property revenues for the County. Revenues would also be generated from secondary sources of employee generated revenue. In addition, the project would be subject to a state land lease along with a capacity fee per megawatt.



- Mohave County would receive an estimated \$1.1 million in cumulative tax revenue from construction related impacts. These impacts are generated by the share of employees that would spend within Mohave County during the 14-month construction phase.

Tax Revenues during Construction Mohave County Solar Project (2023 dollars)				
Impact Type	Secondary Revenues			Total Revenues
	Employee Spending Sales Tax	Resident Property Tax	State Shared Revenues	
Direct	\$119,600	\$678,400	\$1,940	\$799,940
Indirect	\$17,800	\$104,500	\$290	\$122,590
Induced	\$21,900	\$127,000	\$360	\$149,260
Total	\$159,300	\$909,900	\$2,600	\$1,071,800

1/ The figures are intended only as a general guideline as to how the taxing jurisdictions could be impacted by the project. The above figures are based on the current economic structure and tax rates of the State of Arizona, county and other taxing jurisdictions.

Source: EDPCo; IMPLAN; ADOR; ATRA

Operations of the example solar project would create tax revenue for the County and local school districts.

- Mohave County property taxes include taxing jurisdictions such as the Mohave County Fire Districts, flood control district, library district, community college and educational districts. These jurisdictions would receive an average of \$327,000 per year in personal property taxes. The school districts would receive an average of \$376,000 in tax revenue each year.
- Average annual taxes generated for the County from employees total an estimated \$42,400 each year.

In total, the combined annual taxes generated for the County total an estimated \$745,400 each year, on average.



Average Annual Tax Revenues Mohave County Solar Project	
(2023 dollars)	
Average Annual Operating Taxes Generated	
Personal property tax	
Mohave County and Special Districts	\$327,000
Local School Districts	\$376,000
Tax revenues generated by employees	\$42,400
Total Operations Related Revenue	\$745,400
<p>1/ The figures are intended only as a general guideline as to how the county could be impacted by the project. The above figures are based on the current economic structure and tax rates of the State of Arizona and county.</p> <p>Source: Elliott D. Pollack & Co.; IMPLAN; AZDOR; AriSEA; ATRA</p>	

- Over the life of the project, the County and its school districts would receive an estimated \$30.9 million in total from construction and ongoing annual tax collections generated by the Mohave Solar Project.

Tax Revenues: Life of Project Mohave County Solar Project	
(2023 dollars)	
Construction related tax revenues	\$1,071,800
Operations Impact	
Personal property tax	
Mohave County and Special Districts	\$13,100,000
Local School Districts	\$15,000,000
Tax revenues generated by employees	\$1,696,000
GRAND TOTAL FISCAL IMPACT	\$30,867,800
<p>1/ The figures are based on a 40-year life and intended as a general guideline as to how the local governments could be impacted by the project. The above figures are based on the current economic structure and tax rates of the State of Arizona and other taxing jurisdictions.</p> <p>Source: Elliott D. Pollack & Co.; AriSEA; IMPLAN</p>	



Assumptions & Methodology

The typical 1,200-acre solar power generating facility would produce up to 200 MW of power and includes the addition of 200 MW of battery storage. The total value of the example project is estimated at \$528.0 million including construction and equipment.

Project Assumptions	
Mohave County Solar Project	
(2023 dollars)	
Acres	1,200
Solar Facility (MW)	200
Battery Storage (MW)	200
<u>Engineering, Procurement and Construction Value</u>	
Solar Facility Construction	\$40,000,000
Solar Equipment	\$167,000,000
Battery Storage Construction	\$45,000,000
Battery Storage Equipment	\$276,000,000
Total value of project	\$528,000,000
Source: AriSEA; Elliott D. Pollack & Company	

The following table outlines the weighted average tax rates used in estimating the property tax impacts of the example Mohave County Solar Project. These rates are applied to every \$100 of net assessed value. The rates are current as of 2023 and are used for the entire duration of the project life.

Weighted Average Property Tax Rates	
Mohave County Solar Project	
DISTRICT	RATE
Mohave County	1.755
Flood Control District	0.500
Fire District Assistance Tax	0.100
Library District	0.255
Fire District	1.453
TV CID	0.056
Western AZ Vocational Edu Dist.	0.050
Community College	1.098
Local School Districts	6.048
Grand Total	11.314
Source: Mohave County Assessor's Office	



Economic Impact Methodology

Economic impact analysis examines the economic implications of an activity in terms of output, earnings, and employment. For this study, the analysis focused on the construction impacts as well as the ongoing operations including direct expenditures by the residents.

The different types of economic impacts are known as direct, indirect, and induced, according to the manner in which the impacts are generated. For instance, direct employment consists of permanent jobs held by project employees. Indirect employment is those jobs created by businesses that provide goods and services essential to the operation or construction of the project. These businesses range from manufacturers (who make goods) to wholesalers (who deliver goods) to janitorial firms (who clean the buildings). Finally, the spending of the wages and salaries of direct and indirect employees on items such as food, housing, transportation and medical services creates induced employment in all sectors of the economy, throughout the region. These secondary effects are captured in the analysis conducted in this study.

Multipliers have been developed to estimate the indirect and induced impacts of various direct economic activities. IMPLAN developed the multipliers used in this study and were selected based on the land use type. The multipliers used for this project represent the construction of power and communication as well as electric power generation for ongoing operations.

The multipliers specific to Mohave County are used in this study. This means that the indirect and induced figures represent jobs created throughout the region.

The economic impact is categorized into three types of impacts:

- (1) **Employment Impact** – the total wage and salary and self-employed jobs in a region. Jobs include both part time and full-time workers.
- (2) **Earnings Impact** – the personal income, earnings or wages, of the direct, indirect and induced employees. Earnings include total wage and salary payments as well as benefits of health and life insurance, retirement payments and any other non-cash compensation.
- (3) **Economic Output** – also referred to economic activity, relates to the gross receipts for goods or services generated by the company’s operations.

Economic impacts are by their nature regional in character. Such impacts are best illustrated when not assigned to a specific municipality or locality, although clearly the primary impact of



job creation would be in the municipality and county where the project is located. Indeed, many communities in the surrounding region would also benefit from the operations of the project.

Fiscal Impact Methodology

Fiscal impact analysis studies the public revenues associated with a particular economic activity. The primary revenue sources of local, county, and state governments (i.e., taxes) are analyzed to determine how an activity may affect the various jurisdictions. This section would evaluate the impact of the project on State, county and local school districts.

The fiscal impact figures cited in this report have been generated from information provided by a variety of sources including the U.S. Bureau of the Census; the U.S. Department of Labor; the Internal Revenue Service; the State of Arizona; the Arizona Tax Research Association; and the U.S. Consumer Expenditure Survey. Elliott D. Pollack & Company has relied upon the estimates of operating revenues outlined in this study.

Fiscal impacts are categorized by type in this study, similar to economic impact analysis. The major sources of revenue generation for governmental entities are calculated based on ongoing operations. Employees would spend part of their salaries on local goods and services and pay taxes on the homes they occupy. This spending would contribute to revenues collected by the State that are ultimately shared with local governments.

The project would be exempt from prime contracting transaction privilege tax (under ARS 42-5075(b)(7) and ARS 42-5061). However, there is still substantial value from solar equipment that would increase the personal property revenues for the County. Revenues would also be generated from secondary sources of employee generated revenue. The following is a description of the applicable revenue sources that would be considered for this analysis.

Primary Taxes Generated by Project

- **Personal Property Tax**

Renewable energy projects are centrally assessed by the Arizona Department of Revenue. The total original cost is used to calculate the full cash value. The depreciation schedule is then based on straight-line depreciation over the useful life (currently 30 years capped at 90% of taxable original cost per ARS 42-14155). The full cash value factor for renewable energy is 20% and the assessment ratio of 15% is applied for a total taxable value each year.



Secondary Taxes Generated by Employees

The following tax rates are applied to the spending of direct, indirect and induced employees.

- Transaction Privilege Tax

The State, counties, and local cities in Arizona charge sales tax on retail goods and utility usage. The sales tax rate for the State is 5.6%. Portions of this tax are redistributed through revenue sharing to counties and cities throughout Arizona based on population. The weighted average tax rate for local governments is 2.15%. Based on data from the U.S. Consumer Expenditure Survey, the projected extent of retail spending and resulting sales tax receipts was calculated.

- Property Tax

Given that the location of the example project is unknown, the value of the land was not estimated and, thus, real property taxes for the land are not calculated in this report. However, the employees would be subject to residential property tax in Arizona with an assessment ratio of 10%. In order to estimate property taxes, the assessed full cash value of the occupied space along with the projected value of a typical housing unit has been calculated.

- State Shared Revenues

Each municipality in Arizona receives a portion of State revenues from four different sources - State sales tax (see description above), State income tax, vehicle license tax and highway user tax. The formulas for allocating these revenues are primarily based on population. Counties also share in the revenue sources of the State, with the exception of income tax.

State Income Tax

The State of Arizona collects taxes on personal income. The tax rate used in the analysis averages about 1.6% for earnings. These percentages are based on the most recently available income tax data from the State and the projected wage levels of jobs created by the construction and operations impact. This tax is applied to the wages and earnings of direct and indirect employment. Portions of this tax are redistributed through revenue sharing to cities throughout Arizona based on population.

HURF Taxes

The State of Arizona collects specific taxes for the Highway User Revenue Fund (HURF). Both the registration fees and the motor vehicle fuel tax (gas tax) are considered in this analysis. The motor vehicle fuel tax is \$0.18 per gallon and is calculated based on a vehicle traveling the Arizona statewide average of 12,000



miles per year at 16.6 miles per gallon. Registration fees average \$65 per employee in the State of Arizona. These factors are applied to the projected direct and indirect employee count. Portions of these taxes are distributed to cities and counties throughout Arizona based on a formula that includes population and the origin of gasoline sales.

Vehicle License Tax

The vehicle license tax is a personal property tax placed on vehicles at the time of annual registration. This factor is applied to the projected direct, indirect and induced employee count. The average tax used in this analysis is \$343 and portions of the total collections are distributed to the Highway User Revenue Fund. The remaining funds are shared between cities and counties in accordance with population-based formulas.

The above tax categories represent the largest sources of revenues that would be generated to the various jurisdictions. The revenue impacts do not include certain revenue sources such as corporate income taxes. All tax collections represented in this analysis are gross collections and do not take into consideration any incentives or development agreements that may occur.



