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

Prepared for:

Arizona Solar Energy Industries Association (AriSEIA)

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Summary of Impacts

There is a common misconception that solar projects do not contribute to the economy nor generate tax revenues for local governments. However, solar projects across all counties in Arizona are subject to personal property taxes on equipment and, thus, generate significant revenue for local taxing jurisdictions as outlined in this report. In addition, solar projects can contribute to increased real property taxes as well as generate use taxes levied on non-exempt equipment for the State (but these additional State taxes are not included in this analysis).

This report estimates the impacts of a typical solar project to be located in La Paz 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 (4 hours) of battery storage. 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.

The taxable original cost of a project of this size is estimated at $528.0 million. The taxable original cost is subject to personal property tax using a 30-year straight-line depreciation with a 10% floor for solar and 15-year straight-line depreciation with a 10% floor for battery storage. The full cash value of renewable energy equipment is 20% of the depreciated cost of the equipment per ARS 42-14155. This full cash value is subject to Arizona personal property taxes over the life of the project (40 years for the solar facility and 20 years for battery storage).

Impact Summary

During construction, an estimated $431,100 in tax revenues and 252 jobs would be created in the local economy from this example project. In addition, over the life of the project, more than $19.4 million in tax revenue would be generated by personal property tax on equipment. These taxes would directly benefit the county, its special districts (such as fire district and community college districts), and local school districts. Furthermore, employees working on the project generate an estimated $636,000 in tax revenues.

In total, this example La Paz County Solar Project would generate an estimated $19.5 million in tax revenues during the life of the project. The total economic output of the project over the life of the project is estimated at $188.0 million.

La Paz County Solar Project Summary Impact

Construction related jobs	252
Taxes generated during construction	$431,100
Personal property tax generated during life of project	
La Paz County and special districts	$10.5 million
Local school districts	$7.9 million
Tax revenues generated by employees	$636,000
Grand total of taxes generated during life of Project	**$19.5 million**
Total economic activity during construction and 40 years of operations	**$188.0 million**

Economic Impact and Tax Revenue Analysis

Economic Impacts

- Development would provide an immediate $31.9 million in direct construction impact in the County, generating a direct, indirect and induced total of $38.0 million in total economic impact from construction activity. This investment would create 252 construction and related jobs and $10.2 million in wages over the projected construction schedule.

- Once operating, an estimated $3.8 million in annual economic activity would occur within the County's economy each year.

- All totaled, the example solar project would create over $188.0 million in economic activity within La Paz County during construction and 40 years of operations.

Economic Impact Summary
La Paz County Solar Project
(2024 dollars)

Construction

Impact Type	Jobs	Wages	Economic Output
Direct	225	$8,704,000	$31,900,000
Indirect	16	$873,000	$3,466,000
Induced	11	$588,000	$2,620,000
Total	**252**	**$10,165,000**	**$37,986,000**

Ongoing Annual Operations

Impact Type	Annual Jobs	Total Wages	Economic Output
Direct	4	$448,000	$2,836,100
Indirect	2	$129,100	$625,000
Induced	2	$76,100	$289,900
Total	**8**	**$653,200**	**$3,751,000**

Total economic output during construction and 40 years of operations:	**$188,026,000**

Source: Elliott D. Pollack & Company; IMPLAN

Tax Revenues Generated

Construction and operations of the solar project would create significant tax revenue for La Paz 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.

- La Paz County would receive an estimated $431,100 in cumulative tax revenue from construction related impacts. These impacts are generated by the share of employees that would spend within La Paz County during the construction phase.

Tax Revenues during Construction
La Paz County Solar Project
(2024 dollars)

Impact Type	Secondary Revenues: Employee Spending Sales Tax	Secondary Revenues: Resident Property Tax	Secondary Revenues: State Shared Revenues	**Total Revenues**
Direct	$135,200	$247,300	$170	**$382,670**
Indirect	$11,000	$17,300	$10	**$28,310**
Induced	$7,700	$12,400	$10	**$20,110**
Total	**$153,900**	**$277,000**	**$200**	**$431,100**

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.

- La Paz County property taxes include taxing jurisdictions such as La Paz County the fire district assistant tax, and community college districts. These jurisdictions would receive an average of $262,500 per year in personal property taxes. The school districts would receive an average of $198,000 in tax revenue each year.

- Average annual taxes generated for the County from employees total an estimated $15,900 each year.

In total, the combined annual taxes generated for the County average an estimated $476,400 each year.

Average Annual Tax Revenues La Paz County Solar Project (2024 dollars)	
Average Annual Operating Taxes Generated	
Personal property tax	
La Paz County and Special Districts	$262,500
Local School Districts	$198,000
Tax revenues generated by employees	$15,900
Total Operations Related Revenue	**$476,400**

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.

Source: Elliott D. Pollack & Co.; IMPLAN; AZDOR; AriSEA; ATRA

- Over the life of the project, the County and its school districts would receive an estimated $19.5 million in total from construction and ongoing annual tax collections generated by the La Paz Solar Project.

Tax Revenues: Life of Project La Paz County Solar Project (2024 dollars)	
Construction related tax revenues	$431,100
Operations Impact	
Personal property tax	
La Paz County and Special Districts	$10,499,500
Local School Districts	$7,921,400
Tax revenues generated by employees	$636,000
GRAND TOTAL FISCAL IMPACT	**$19,488,000**

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.

Source: Elliott D. Pollack & Co.; AriSEA; IMPLAN

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.

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 (4 hours) of battery storage. The total value of the example project is estimated at $528.0 million including construction 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.

Project Assumptions
La Paz County Solar Project
(2024 dollars)

Acres	1,200
Solar Facility (MW)	200
Battery Storage - 4 hours (MW)	200
Taxable Original Cost of Equipment*	
Solar Equipment	$207,000,000
Battery Storage Equipment	$321,000,000
Total value of project	$528,000,000

*Taxable Original Cost is subject to personal property tax per the ADOR

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 La Paz County Solar Project. These rates are applied to every $100 of net assessed value. The rates are current as of this report and are used for the entire duration of the project life.

Average Property Tax Rates
La Paz County Solar Project

DISTRICT	RATE
La Paz County	2.595
Fire District Assistance Tax	0.100
Community College	2.346
Local School Districts	3.803
Grand Total	**8.844**

Source: 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 construction multipliers specific to La Paz County are used in this study. For the solar generation multiplier, an average of similar economies was used, as the current multiplier set for La Paz County does not exist.

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 2.19%. 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.

APPENDIX 1: Annual Personal Property Tax Estimates by Jurisdiction

Personal Property Tax Impact from Operations
La Paz County Solar Project
(2024 dollars)

	Construction	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
Total taxable value	$15,840,000	$14,991,000	$14,142,000	$13,293,000	$12,444,000	$12,423,000	$11,518,800	$10,614,600	$9,710,400	$8,806,200	$9,144,000	$8,157,000	$7,170,000	$6,183,000
La Paz County	$411,096	$389,061	$367,027	$344,993	$322,959	$322,414	$298,947	$275,481	$252,014	$228,547	$237,314	$211,699	$186,083	$160,467
Fire District Assistance Tax	$15,840	$14,991	$14,142	$13,293	$12,444	$12,423	$11,519	$10,615	$9,710	$8,806	$9,144	$8,157	$7,170	$6,183
Community College	$371,575	$351,659	$331,743	$311,827	$291,911	$291,419	$270,208	$248,997	$227,787	$206,576	$214,500	$191,347	$168,194	$145,041
La Paz County	**$798,510**	**$755,711**	**$712,912**	**$670,113**	**$627,314**	**$626,256**	**$580,674**	**$535,093**	**$489,511**	**$443,929**	**$460,958**	**$411,203**	**$361,447**	**$311,691**
Local School Districts	$602,443	$570,153	$537,863	$505,573	$473,283	$472,484	$438,095	$403,705	$369,316	$334,926	$347,774	$310,235	$272,697	$235,158
School Districts	**$602,443**	**$570,153**	**$537,863**	**$505,573**	**$473,283**	**$472,484**	**$438,095**	**$403,705**	**$369,316**	**$334,926**	**$347,774**	**$310,235**	**$272,697**	**$235,158**
Grand Total	**$1,400,953**	**$1,325,864**	**$1,250,775**	**$1,175,686**	**$1,100,597**	**$1,098,740**	**$1,018,769**	**$938,798**	**$858,827**	**$778,856**	**$808,732**	**$721,438**	**$634,144**	**$546,849**

	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27
Total taxable value	$5,517,000	$6,414,000	$5,986,200	$5,558,400	$5,130,600	$4,730,400	$4,357,800	$1,863,000	$1,656,000	$1,449,000	$1,242,000	$1,035,000	$828,000	$621,000
La Paz County	$143,183	$166,463	$155,360	$144,257	$133,154	$122,768	$113,098	$48,350	$42,978	$37,606	$32,234	$26,861	$21,489	$16,117
Fire District Assistance Tax	$5,517	$6,414	$5,986	$5,558	$5,131	$4,730	$4,358	$1,863	$1,656	$1,449	$1,242	$1,035	$828	$621
Community College	$129,418	$150,460	$140,424	$130,389	$120,354	$110,966	$102,225	$43,702	$38,846	$33,991	$29,135	$24,279	$19,423	$14,567
La Paz County	**$278,117**	**$323,336**	**$301,770**	**$280,205**	**$258,639**	**$238,464**	**$219,681**	**$93,916**	**$83,481**	**$73,046**	**$62,610**	**$52,175**	**$41,740**	**$31,305**
Local School Districts	$209,828	$243,944	$227,673	$211,403	$195,132	$179,911	$165,740	$70,856	$62,983	$55,110	$47,237	$39,364	$31,491	$23,619
School Districts	**$209,828**	**$243,944**	**$227,673**	**$211,403**	**$195,132**	**$179,911**	**$165,740**	**$70,856**	**$62,983**	**$55,110**	**$47,237**	**$39,364**	**$31,491**	**$23,619**
Grand Total	**$487,946**	**$567,280**	**$529,444**	**$491,607**	**$453,771**	**$418,376**	**$385,421**	**$164,771**	**$146,463**	**$128,155**	**$109,847**	**$91,540**	**$73,232**	**$54,924**

	Year 28	Year 29	Year 30	Year 31	Year 32	Year 33	Year 34	Year 35	Year 36	Year 37	Year 38	Year 39	Total
Total taxable value	$621,000	$621,000	$621,000	$621,000	$621,000	$621,000	$621,000	$621,000	$621,000	$621,000	$621,000	$621,000	
La Paz County	$16,117	$16,117	$16,117	$16,117	$16,117	$16,117	$16,117	$16,117	$16,117	$16,117	$16,117	$16,117	$5,405,400
Fire District Assistance Tax	$621	$621	$621	$621	$621	$621	$621	$621	$621	$621	$621	$621	$208,300
Community College	$14,567	$14,567	$14,567	$14,567	$14,567	$14,567	$14,567	$14,567	$14,567	$14,567	$14,567	$14,567	$4,885,800
La Paz County	**$31,305**	**$31,305**	**$31,305**	**$31,305**	**$31,305**	**$31,305**	**$31,305**	**$31,305**	**$31,305**	**$31,305**	**$31,305**	**$31,305**	**$10,499,500**
Local School Districts	$23,619	$23,619	$23,619	$23,619	$23,619	$23,619	$23,619	$23,619	$23,619	$23,619	$23,619	$23,619	**$7,921,400**
School Districts	**$23,619**	**$23,619**	**$23,619**	**$23,619**	**$23,619**	**$23,619**	**$23,619**	**$23,619**	**$23,619**	**$23,619**	**$23,619**	**$23,619**	**$7,921,400**
Grand Total	**$54,924**	**$54,924**	**$54,924**	**$54,924**	**$54,924**	**$54,924**	**$54,924**	**$54,924**	**$54,924**	**$54,924**	**$54,924**	**$54,924**	**$18,420,900**

NOTES

1 Depreciation used to value "renewable energy equipment" is based on "straight-line depreciation over the useful life, as adopted by the department" per ARS 42-14155.
2 Depreciation uses a 30 year straight line depreciation for solar and 15 year for battery storage in this analysis as advised by the Arizona Department of Revenue.
3 Through 12/31/40 the full cash value of "renewable energy equipment" is 20% of the depreciated cost of the equipment per ARS 42-14155. This report assumes the statute will be extended to cover the life of the project.
4 The total may not equal the sum of the impacts due to rounding. All dollar figures are in constant dollars. Inflation has not been included in these figures.
5 The figures for the County as a whole are based on the current tax rates and assume the Project would not impact these rates.
6 The forecasts are subject to uncertainty and variation. Accordingly, we do not represent them as results that will be achieved. Changes in rates would alter the findings of this analysis.

Source: Elliott D. Pollack & Company; IMPLAN; Arizona Department of Revenue; Arizona Tax Research Association; AriSEA