

Taelor Solar Project

Economic Impact Analysis

FINAL REPORT
December 12, 2023

Taelor Solar Project — Economic Impact Analysis

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Adam Orens is the Founder and Managing Director of MPG Consulting. Adam has 18 years of experience in economic and public policy consulting, including market analysis, public finance, and regional economic analysis. Adam has completed numerous studies that analyze the relationships between markets, demographics, economic impacts, and government policy, including economic impact analyses of various development projects, industries, and events.

Prior to starting MPG Consulting, Adam was Managing Director of BBC Research & Consulting, one of the oldest and largest privately held consulting firms in the Rocky Mountain Region. At BBC, Adam directed consulting engagements for businesses and governments across the US, Canada, Mexico and Asia. Past clients include NASCAR, Vail Resorts, US Marine Corps, and Intrawest/Alterra Mountain Co.

Adam's demographic and economic research related to public lands management and emerging markets has been recognized by the *White House Council on Environmental Quality*, *The New York Times*, the *Washington Post*, the *Wall Street Journal* and the *Economist*.

Table of Contents

Executive Summary1

Project and Regional Background.....3

Economic Impact Methodology.....8

Economic Impact Results.....10

Local Government Tax Revenue.....15

Appendix.....17

Executive Summary

Balanced Rock Power, through its subsidiary Taelor Solar 1 LLC, is developing the Taelor Solar Project in Morgan and Weld Counties, near the town of Wiggins, Colorado. The purpose of this report is to develop estimates of the economic impact of the project on Morgan County, Weld County, and the State of Colorado. The analysis provides estimates in terms of the direct, indirect, and induced impacts on job creation, wages, and total economic output resulting from the construction and operation of the Taelor Solar Project. The study presents results for each county, for the two-county region, and the state of Colorado.



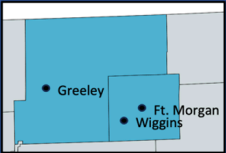

The proposed Taelor Solar Project is a 900-megawatt (MW) utility-scale, solar powered electric generation facility that utilizes photovoltaic (PV) panels installed on a single-axis tracking system, and an onsite 1.15 gigawatt hour (GWh) Battery Energy Storage System (BESS). In total, the Project represents an investment of more than \$1.5 billion. The first phase, proposed to be located in Morgan County, includes a 250 MW solar collection and generation facility and up to a 500 megawatt-hour (MWh) BESS facility. Phase 2, located adjacent to phase 1, but in Weld County, includes a 650 MW solar facility and up to a 650 MWh BESS facility. If approved by local authorities, Phase 1 construction would begin in Q2 2025 and Phase 1 operations would commence by Q2 2027. Phase 2 construction would begin in Q4 2025. The project will become fully operational beginning in 2028 according to company projections.

The economic impact of large-scale utility development generally occurs in two ways, an initial temporary construction period that can produce direct economic activity through local employment and materials purchases. The following operations phase will create a modest permanent local workforce and purchase materials and services related to facility operations and site maintenance. The project developer has stated publicly that it will hire local workers and buy materials locally where possible in the construction and operations.

In addition to direct employment and related spending, the project developer will purchase materials and equipment for site development and will stimulate additional impacts through multiplier effects. Multiplier effects include indirect impacts that result from additional rounds of spending by businesses in the project supply chain and induced impacts from household spending by new project-related employees. Employees at the project and at related businesses will spend their income on housing, transport, medicine, and a variety of household goods and services in region.

In total, over two phases that are expected to last 4 years, the project's direct, indirect, and induced effects in the regional economy (i.e., Morgan & Weld Counties) are expected to result in a total of \$54.2 million of economic output, supporting 450.4 job-years (112.6 jobs per year), and \$27.4 million in labor earnings over the construction period. The project will also produce \$1.7 million of economic output, 17.7 total jobs per year and \$1.2 million of labor earnings during the operations period. Results at the state level include a total of \$1.1 billion of economic output, supporting 5,542 job-years (1,385 jobs per year), and \$441.2 million of labor earnings over the construction period; and \$8.2 million of economic output, 45.2 total jobs per year and \$3.3 million of labor earnings per year during the operations period.

Figure 1.
Summary of Results – Taelor Solar Project Economic Impacts

		Phase 1 - Local	Phase 2 - Local	Total Region	Total State
Impact Type					
Construction Phase (2-5 yrs)	Direct Employment Impact (FTE)*	108.6	175.7	264.1	1,604.9
	Total Employment Impact (FTE)*	161.0	299.6	450.4	5,541.8
	Direct Earnings	\$5.0M	\$12.3M	\$17.9M	\$145.2M
	Total Earnings	\$7.4M	\$18.7M	\$27.4M	\$441.2M
	Total Economic Impact	\$18.7M	\$35.6M	\$54.2M	\$1,102.6M
Operations Phase (Annual)	Direct Employment Impact (FTE)	4.0	10.0	14.0	14.0
	Total Employment Impact (FTE)	5.2	12.4	17.7	45.2
	Direct Earnings	\$270K	\$710K	\$980K	\$980K
	Total Earnings	\$330K	\$840K	\$1.2M	\$3.3M
	Direct Economic Impact	\$270K	\$710K	\$980K	\$1.7M
	Total Economic Impact	\$540K	\$1.2M	\$1.7M	\$8.2M
	Property Tax Revenue (30-yr)	\$30.4M	\$57.0M	\$87.4M	N/A

Note: * Employment figures are stated as total one-year full-time equivalents and will be spread over 2 years in Phase 1 and over 3 years in phase 2

Source: NREL; IMPLAN, Inc. MPG Consulting LLC.

Project and Regional Background

Balanced Rock Power, Inc. plans to construct and operate the Taelor Solar Project, a 900-megawatt (MW) photovoltaic (PV) solar electric power generating and Battery Energy Storage System (BESS) facility (Project) that will serve a portion of the electrical load requirements of Colorado.

The Project will be developed on private, agricultural land in Morgan and Weld Counties. The Project is designed to have a useful life of about 30 years, although the life span may be extended by upgrades and refurbishments. MPG Consulting LLC was retained to estimate the potential economic impacts of the Taelor Solar Project on Morgan and Weld Counties and the state of Colorado.

The following sections present information on the regional economy, the Colorado solar power generation industry; and the estimated economic impacts of the Project on each county, the two-county region, and the state of Colorado. Direct, indirect, and induced economic impacts are presented in terms of employment, labor earnings, economic output, and local government tax revenue.

Colorado Solar Industry

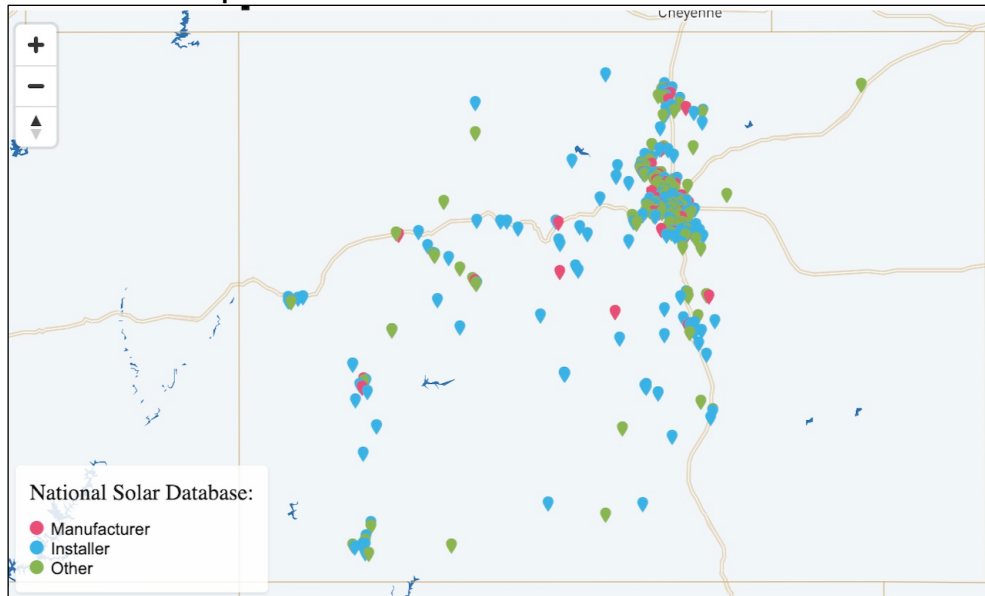
According to the Solar Energy Industries Association (SEIA), Colorado is ranked 12th in the U.S. in installed solar PV capacity. California, Texas, and Florida are the top 3 states for solar PV which may not be surprising because of the high solar irradiation that they receive. The eastern part of Colorado receives a high degree of solar irradiation, and it has promising solar potential. In 2022, Colorado ranked 25th in terms of installed PV capacity, underscoring its future growth potential. In 2021-2022, Colorado installed nearly 650 MW of solar electric capacity bringing its cumulative capacity to 2,995 MW.

Colorado has several large utility-scale solar facilities in operation: Bighorn Solar (300 MW) and Comanche Solar (150 MW) both located in Pueblo County are two of the largest in the state. Morgan County recently permitted two utility-scale solar facilities that are under development, including 450 MW and 500 MW projects with BESS. Weld County currently has six solar facilities in operation starting in 2015 and totaling 49 MW, and a 150 MW project currently under development.

There are more than 395 solar companies in Colorado including 40 manufacturers, 189 installers/developers, and 170 others. Figure 2 shows the locations of solar companies in Colorado as of the time of this report. Most of these companies focus on residential-scale solar service and installation, but there is a class of companies that manufacture and sell components

for utility-scale projects.^{1,2} Currently, there are 7,626 solar jobs in the State of Colorado according to SEIA.

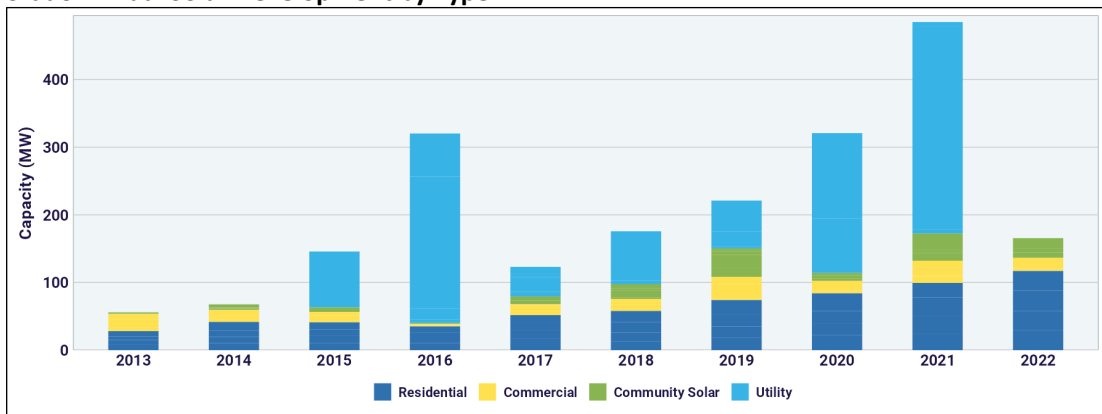
Figure 2.
Colorado Solar Companies



Source: Solar Energy Industries Association, 2023.

Figure 3 shows the Colorado historical installed capacity by year according to the SEIA. Huge growth was seen in 2021 and was forecast to continue beyond a slower 2022. Over the next five years, solar in Colorado is projected to grow by 4,084 MW.

Figure 3.
Colorado Annual Solar Development by Type



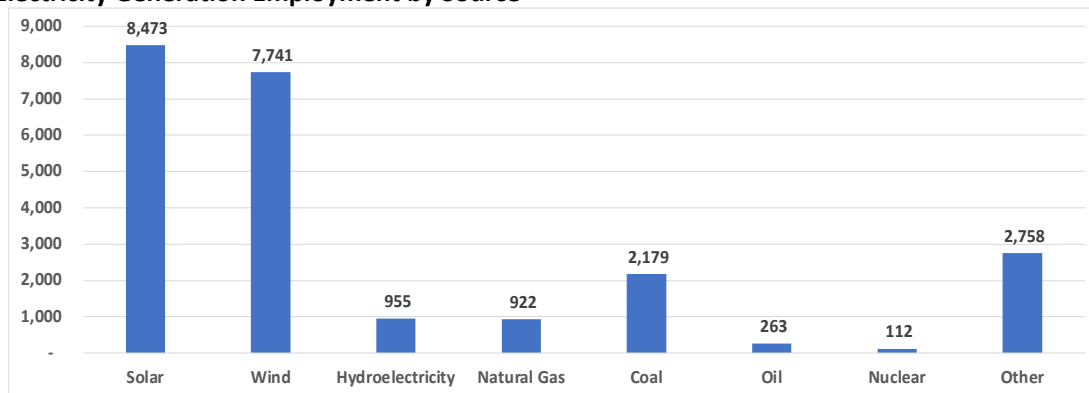
Source: Solar Energy Industries Association, 2023.

¹ <https://www.cpr.org/2023/07/25/new-solar-facility-colorado-springs/>

² <https://www.evrazna.com/products>

The U.S. Department of Energy sponsors the U.S. Energy and Employment Report (USEER) each year. USEER covers all utility and non-utility employment across electric generating technologies, including fossil fuels, nuclear, and renewable technologies. It also includes employees engaged in facility construction, turbine and other generation equipment manufacturing, operations and maintenance, and wholesale parts distribution for all electric generation technologies.

Figure 4.
Electricity Generation Employment by Source



Source: US Department of Energy, Energy and Employment Report (Colorado), 2022.

According to the US Department of Energy, (Figure 4), employment in the solar energy industry (8,473) is larger than coal generation (2,179) and wind electric generation (7,741) in Colorado.

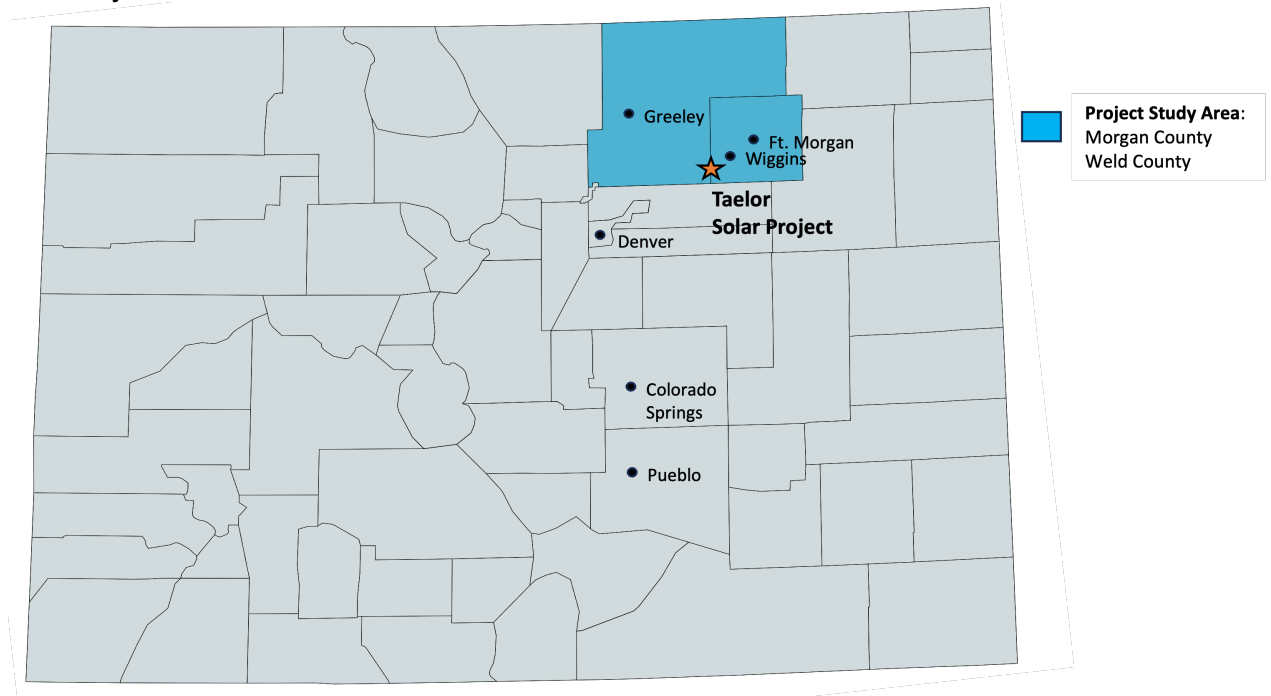
Project Description

The proposed Taelor Solar Project is a 900-megawatt (MW) utility-scale, solar powered electric generation facility that utilizes photovoltaic (PV) panels installed on a single-axis tracking system, and an onsite 1.15 gigawatt hour (GWh) Battery Energy Storage System (BESS). In total, the Project represents an investment of more than \$1.5 billion.

The first phase, proposed to be in Morgan County, includes a 250 MW solar collection and generation facility and up to a 500 megawatt-hour (MWh) BESS facility. Phase 2, located adjacent to phase 1, but in Weld County, includes a 650 MW solar facility and up to a 650 MWh BESS facility.

If approved by local authorities, Phase 1 construction would begin in Q2 2025 and operations would commence by Q2 2027. Phase 2 construction would begin in Q4 2025, with operations beginning in 2028.

Figure 5.
Taelor Project Location



Source: Balanced Rock Power, MPG Consulting.

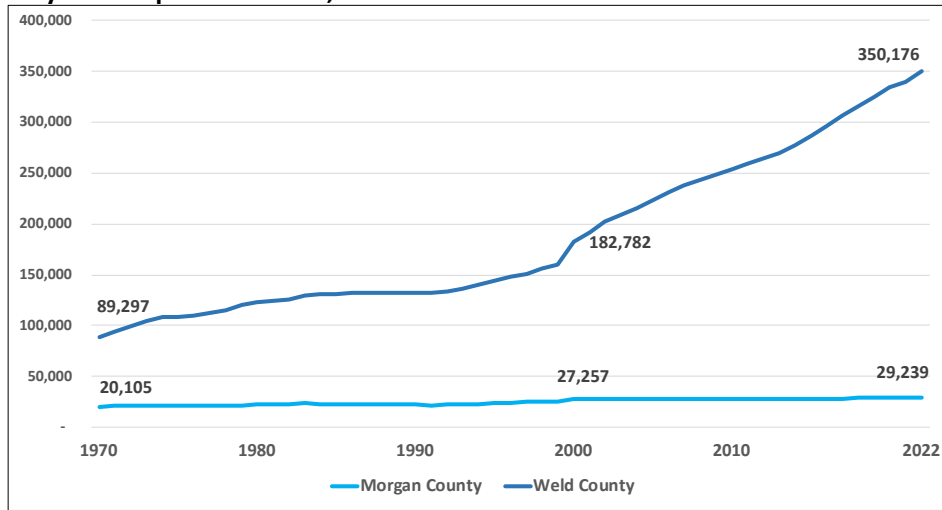
The project is located southwest of Wiggins, straddling the Weld and Morgan County border. The site's proximity to Wiggins, Fort Morgan, Greeley, the Denver metropolitan area and nearby transmission lines make it an advantageous location for solar power generation.

Analysis Area – Morgan County and Weld County, Colorado

Morgan and Weld Counties are centers for agricultural production and services, manufacturing, and oil and gas development. Since 2015, the region has seen increased utility scale PV Solar development activity, the result of favorable federal and state tax incentives, and proximity to planned transmission lines.

The following Figures show population trend and employment by sector, for Morgan County, Weld County, the region, and the state of Colorado.

Figure 6.
Study Area Population Trend, 1970-2022



Source: US Census Bureau, MPG Consulting.

The analysis region is 5,279 square miles and the U.S. Census estimates the most recent population estimates at 29,239 in Morgan County and 350,176 in Weld County. Population in Morgan County has been between 20,000 and 30,000 since 1970. Weld County has experienced rapid population growth since 2000, growing over 85 percent.

Figure 7 shows employment by sector in the analysis area. Shaded industries indicate the top 5 sectors by employment in each county.

Figure 7.
Employment by Sector, Morgan and Weld Counties, Colorado, 2022

Source: IMPLAN Group, Inc., Bureau of Economic Analysis, MPG Consulting.

Description	Morgan County	Weld County
Agriculture, Forestry, Fishing and Hunting	1,726	7,134
Mining, Quarrying, and Oil and Gas Extraction	246	5,537
Utilities	188	462
Construction	1,118	16,816
Manufacturing	3,084	13,858
Wholesale Trade	381	4,628
Retail Trade	1,409	12,940
Transportation and Warehousing	717	6,757
Information	259	948
Finance and Insurance	460	6,772
Real Estate and Rental and Leasing	596	7,884
Professional, Scientific, and Technical Services	881	8,499
Management of Companies and Enterprises	45	2,000
Administrative and Support Services	680	8,498
Educational Services	67	1,453
Health Care and Social Assistance	1,210	12,333
Arts, Entertainment, and Recreation	103	2,023
Accommodation and Food Services	1,085	9,779
Other Services (except Public Administration)	522	10,174
Government Enterprises	116	609
Administrative Government	2,023	15,984

Weld and Morgan counties are an historical home to manufacturing, agriculture, and oil and gas development in Colorado. Morgan County manufacturing operations are the largest employers in the county, including Leprino Foods and the Western Sugar Co-op. In Weld County, construction, energy, and agricultural sectors are the historical leading employers.

Based on existing strong economic sectors, both counties are well-suited to absorb economic activity and employment related to construction, energy development, agriculture, and manufacturing.

Economic Impact Methodology

This economic analysis uses the latest available Jobs and Economic Development Impacts (JEDI) PV Model (PV 05.20.21) from the National Renewable Energy Laboratory (NREL).³ The JEDI PV Model is an input-output model that measures the spending patterns and location-specific economic structures that reflect expenditures supporting varying levels of employment, income, and economic output associated with PV solar projects.

The JEDI Model takes into account that the output of one industry can be used as an input for other industries. For example, when a PV system is installed, there are both soft costs consisting of permitting, planning and labor costs, as well as hardware costs, of which the PV module and BESS batteries are the largest components.

The purchase of modules and batteries not only increases demand for manufactured components and raw materials, but also supports labor for manufacturing and installation. When specialized materials are purchased from a manufacturing facility, the manufacturer uses some of that money to pay employees. The employees use a portion of their compensation to purchase goods and services within their community.

Likewise, when a developer pays workers to install the systems, those workers spend money in the local economy that boosts economic activity and employment in other sectors. The goal of economic impact analysis is to quantify economic and employment activity captured in the local, regional, and state economy.

The first JEDI Model was developed in 2002 to demonstrate the economic benefits associated with developing wind farms in the United States. Since then, JEDI models have been developed for biofuels, PV solar, natural gas, coal, transmission lines and many other forms of energy. All models are created by NREL.

The JEDI model utilizes state-specific industry multipliers obtained from IMPLAN (Impact analysis for PLANning). IMPLAN software and data are an industry-standard economic modeling package, managed and updated by the IMPLAN Group, Inc., using data collected at federal, state,

³ <https://www.nrel.gov/analysis/jedi/pv.html>

and local levels.⁴ The JEDI model takes the economic multipliers and adapts them specifically to a PV development and operations framework, to provide results tailored for this specific application of economic impact analysis.

The total economic impact can be broken down into three effects: direct impacts, indirect impacts, and induced impacts. Direct impacts during the construction period refer to the changes that occur in the onsite construction industries in which the direct final demand (i.e., spending on construction related labor and services) change is made. Onsite construction-related services include installation labor, engineering, design, and other professional services. Direct impacts during operating years refer to the final demand changes that occur in the onsite spending for the solar operations and maintenance workers.

The initial spending on the construction and operation of the solar PV installation will create another layer of impacts, referred to as “supply chain impacts” or “indirect impacts.” Indirect impacts during the construction period consist of changes in intermediate purchases resulting from the direct final demand changes and include construction spending on materials and PV equipment, as well as other purchases of goods and offsite services. Utility-scale solar PV indirect impacts are derived from purchase and installation of PV modules, inverters, tracking systems, cabling, and foundations.

Induced impacts during construction refer to the changes that occur in household spending as household income changes because of the direct and indirect effects of final demand changes. Local spending by employees working directly or indirectly on the Project that receive their paychecks and then spend money in the community is included in the results. The model includes additional local jobs and economic activity that are supported by the purchases of these goods and services.

Several assumptions were developed to complete the analysis and to adapt the models to expected local conditions. Significant assumptions are listed below:

- Local and state construction spending:
 - Most specialized equipment, like PV modules, industrial scale batteries, and inverters are purchased outside Colorado. Balanced Rock Power analysis revealed the presence of Colorado companies with capabilities to manufacture components for approximately 30%-50% of the PV modules.⁵ The analysis includes the use of an adjusted amount (21% of combined module and BESS battery costs) for use with the JEDI model to account for the nature of intermediate manufacturing inputs.

⁴ <https://implan.com/>

⁵ See Note 1. A 10% margin is assumed for the adjustment, based on industry research.

- Other materials used in construction, like ready mixed concrete, gravel and aggregate, and other materials, as well as general construction costs and services for engineering, legal, permitting support, and site preparation, are assumed to be 10 percent sourced within the local study area and the balance within Colorado, but outside the study area.
- The Project is expected to hire 10 percent of the construction workforce locally in Morgan and Weld Counties. About 36 percent of the installation workforce is expected to be from Colorado, according to Balanced Rock Power estimates. Companies are required to use 12.5%-15.0% apprentice labor to qualify for Federal tax credits under the Inflation Reduction Act (2022) and the figures in this report reflect the strong preference for local apprentices for cost efficiency.⁶
- Local operational spending:
 - Materials and services for operations are expected to be 10 percent locally sourced in Morgan and Weld Counties and 80 percent Colorado-sourced.
 - All labor for operations is sourced and based locally in Morgan and/or Weld County.

MPG analysts also updated the JEDI model using the latest county, regional, and state economic multipliers obtained from IMPLAN to create a custom analysis from the core model.

Economic Impact Results

The economic impact results were derived from detailed project cost estimates supplied by Balanced Rock Power. In addition, the report authors and Balanced Rock Power estimated the percentages of project materials and labor that will be coming from within Morgan County, Weld County, and the State of Colorado.

Balanced Rock Power and project partners plan to invest \$1.5 billion in the Taelor solar project. Of this, the majority (64.4 percent) will be for solar modules, batteries, inverters, and related materials (Figure 8). Other major expenditures include civil engineering services, site development, and labor.

The manufacturing and installation of solar equipment and materials is highly specialized—most of the materials needed are not produced in Morgan or Weld Counties or in Colorado. Therefore, only a portion of direct spending in the region and in Colorado is captured and recirculated in the economy.

The balance of economic activity occurs on-site or nearby, such as site preparation and development, and installation of solar panels and BESS facilities. In JEDI and IMPAN modeling systems, a portion of labor payments are captured locally since workers are generally located

⁶ <https://www.irs.gov/credits-deductions/frequently-asked-questions-about-the-prevailing-wage-and-apprenticeship-under-the-inflation-reduction-act#apprenticeship>

on-site during the construction period. Site and project development costs include items such as civil engineering and design, grading, weed and dust mitigation, surveying, general site construction, and planning and legal services. These activities will be sourced locally in Morgan and Weld Counties and in the nearby Denver-Aurora-Lakewood Metropolitan Area. Please refer to the appendix for detailed figures on local construction spending.

It is estimated that, of the \$1.5 billion in total investment, \$40.4 million will be directly spent in Morgan and Weld Counties and \$575.4 million will be spent with companies in Colorado (which includes the Morgan and Weld County spending).

**Figure 8.
Direct
Construction
Spending,
Taelor Solar
Project,
Morgan and Weld
Counties, Colorado**

Note:

Local spending includes all permitting/fees, 10 percent of installation labor, and 10 percent of 'other costs', which includes site development, civil and other services, and materials. Please see the appendix for detailed tables on local spending capture by line item.

Source:

Balanced Rock Power, MPG Consulting.

Construction Period	Phase 1	Phase 2
	Direct Investment 2025-2027	Direct Investment 2025-2028
Materials & Equipment		
Mounting (rails, clamps, fittings, etc.)	\$ 41,605,864	\$ 109,478,752
Modules & Batteries	230,452,952	322,461,254
Electrical (wire, connectors, breakers, etc.)	63,767,122	139,681,623
Inverters	20,900,747	39,722,272
Subtotal	\$ 356,726,686	\$ 611,343,901
Labor		
Installation	35,700,859	82,484,969
Subtotal	\$ 35,700,859	\$ 82,484,969
Other Costs		
Permitting and Fees	\$ 385,000	\$ 1,001,000
Other Costs (Site Dev., Civil, other)	94,525,403	177,229,407
Business Overhead	49,904,033	93,653,512
Subtotal	\$ 144,814,436	\$ 271,883,918
Total	\$ 537,241,981	\$ 965,712,789
Total Investment 2024-2026	\$1,502,954,770	
Estimated Local Spending by Phase (\$)	\$ 13,407,626	\$ 26,972,438
Estimated Local Spending by Phase (%)	2.5%	2.8%
Total Local Spending (\$)	\$40,380,064	
Total Local Spending (%)	2.7%	
Estimated In-state spending (\$)	\$575,357,236	
Estimated In-state spending (%)	38.3%	

Once project construction is complete, the operational phase begins. Balanced Rock Power anticipates spending \$3.3 million annually on phase 1 operations and maintenance (O&M) as shown in Figure 9. The company plans on hiring four employees at the site for phase 1 O&M and spending an additional \$5.6 million per year (\$8.9 million total per year) and 10 employees for phase 2 O&M.

O&M costs in Figure 9 include items such as maintenance materials, site management services, and facility management. Certain O&M costs (for example, specialized replacement parts) will be sourced outside of the region.

**Figure 9.
Direct Operations
Spending, Taelor Solar
Project, Morgan and
Weld Counties,
Colorado**

Source:
Balanced Rock Power, MPG
Consulting.

Operations Period (Annual)	Phase 1	Phase 2
	Beg. 2027	Beg. 2028
Labor	500,000	1,300,000
Materials & Equipment	840,000	1,670,500
Services	1,960,000	2,671,500
Total	3,300,000	5,642,000
	8,942,000	
Annual Local Spending by Phase (\$)	780,000	1,734,200
Annual Local Spending by Phase (%)	24%	31%
Total Annual Local Spending (\$)	2,514,200	
Total Annual Local Spending (%)	28%	
Total In-state spending (\$)	7,488,000	
Total In-state spending (%)	83.7%	

Balanced Rock Power will also be making annual lease payments to landowners that will total between \$2.5 million and \$4.8 million per year over 30 years for the Phase 1 parcels, and another \$2.5 million - \$4.8 million per year over 30 years for the phase 2 parcels. To be conservative, MPG has held these lease payments out of the economic estimates as the payments are concentrated among a small group of landowners that are unlikely to alter their local spending patterns as a result of these payments.

Four separate JEDI models were produced to show the economic impact of Taelor Solar Project. The first JEDI model uses the 2021 Morgan County multipliers from IMPLAN and Phase 1 project construction and operations parameters. The second JEDI model uses the 2021 Weld County multipliers from IMPLAN and Phase 2 construction and operations costs. The third JEDI model uses the 2021 IMPLAN multipliers for the combined Morgan/Weld region and total project costs. The fourth and final JEDI model uses the state of Colorado multipliers and the total project costs. Because geography-specific multipliers from IMPLAN and actual expected cost data from Taelor Solar Project are used, the JEDI model most significantly serves to translate project costs into economic sectors based on the unique features of the project.

Figures 10 through 12 on the following pages show the results of the economic analysis. Figure 10 lists the total employment impact from the Taelor Solar Project in Morgan County, Weld County, the Morgan/Weld Region, and the state of Colorado. Figure 11 shows the impact on total earnings and Figure 12 provides the impact on total economic output.

Figure 10.
Employment Impacts per Year, Taelor Solar Project, Morgan & Weld Counties, Colorado (FTE Jobs)

Category	Phase 1	Phase 2	Total	Total
	Morgan County 2025-2027	Weld County 2025-2028	Morgan / Weld Region 2025-2028	State of Colorado 2025-2028
Construction				
Project Development and Employment Impacts (Direct)	54.3	58.6	66.0	401.2
Supply Chain Impacts (Indirect)	22.1	33.6	37.8	624.5
Household Spending Impacts (Induced)	4.1	7.7	8.7	359.7
<i>New Annual Local Employment during Construction</i>	80.5	99.9	112.6	1,385.5
Operations (Annual, Ongoing)				
Onsite Output Impacts (Direct)	4.0	10.0	14.0	14.0
Local Revenue and Supply Chain Impacts (Indirect)	0.9	1.6	2.4	14.8
Household Spending Impacts (Induced)	0.3	0.8	1.2	16.4
<i>New Local Long-Term Employment</i>	5.2	12.4	17.7	45.2

Note: The above figures have been adjusted to show employment per year in each phase (Ph.1 – 2yrs; Ph. 2 – 2yrs; Total project ~4 yrs)
Source: NREL, IMPLAN, Inc., MPG Consulting, LLC.

The results from the JEDI model show significant employment impacts from the Taelor Solar Project. Employment impacts can be broken down into several different components. Direct jobs created during the construction phase typically last anywhere from 18 to 60 months depending on the size of the project; however, the direct job numbers present in Figure 10 from the JEDI model are based on a full time equivalent (FTE) basis for a year. In other words, 1 job is 1 FTE is 2,080 hours worked in a year. A part time or temporary job would constitute only a fraction of a job according to the JEDI model. For example, the JEDI model results show 54.3 new direct jobs per year during construction in Morgan County, though the construction of the solar project could involve closer to 109 workers working roughly half-time for a year. Thus, due to the relatively temporary nature of construction projects, input-output based economic modelling often understates the actual number of people hired to work on the project. It is important to keep this fact in mind when examining or when reporting the model results.

As shown in Figure 10, new local jobs created or retained during construction total 80.5 per year for Morgan County over two years, and 99.9 per year for the Weld County portions of the project over three years. These jobs represent a portion of the construction workforce, as the company estimates up to 400 construction jobs in total per year over the construction period, some sourced from outside the local area or outside Colorado. Over the potential 4-year construction period, the Morgan/Weld region will average 112.6 new jobs per year for 4 years, and 1,385.5 jobs per year for the State of Colorado over 4 years. New local long-term jobs created from Taelor Solar Project operations total 5.2 for Morgan County, 12.4 for Weld County, 17.7 for the Morgan/Weld region, and 45.2 for the State of Colorado.

Direct jobs created during the operational phase last the life of the solar PV project, typically 30 or more years. Both direct construction jobs and operations and maintenance jobs require highly-skilled workers in the fields of construction, management, and engineering. These technical and highly paid jobs inject additional economic activity in communities through increased household spending.

Labor earnings is also an important figure in economic impact analysis because it indicates the amount of additional job income produced and re-spent in the economy. Figure 11 shows the earnings impacts from Taelor Solar Project, which are categorized by construction impacts and operations impacts.

Figure 11.
Labor Earnings Impacts, Taelor Solar Project, Morgan and Weld Counties, Colorado (\$M)

Construction Period	Phase 1 Morgan County 2025-2027	Phase 2 Weld County 2025-2028	Total Morgan / Weld Region 2025-2028	Total State of Colorado 2025-2028
Construction				
Project Development and Earnings Impacts (Direct)	\$4.97	\$12.34	\$17.88	\$145.15
Supply Chain Impacts (Indirect)	\$2.11	\$5.25	\$7.85	\$198.14
Household Spending Impacts (Induced)	\$0.35	\$1.10	\$1.68	\$97.92
New Local Earnings during Construction	\$7.44	\$18.69	\$27.41	\$441.21
Operations (Annual, Ongoing)				
Onsite Output Impacts (Direct)	\$0.27	\$0.71	\$0.98	\$0.98
Local Revenue and Supply Chain Impacts (Indirect)	\$0.05	\$0.09	\$0.15	\$1.26
Household Spending Impacts (Induced)	\$0.01	\$0.04	\$0.06	\$1.07
New Local Long-Term Earnings	\$0.33	\$0.84	\$1.19	\$3.31

Source: NREL, IMPLAN, Inc., MPG Consulting.

The new local earnings during construction totals over \$7.4 million for Morgan County, about \$18.7 million for phase 2 activity in Weld County, \$27.4 million in the Morgan/Weld Region and \$441.2 million for the State of Colorado over the 4-year construction period. The new local long-term earnings totals over \$330,000 per year for Morgan County, over \$840,000 per year for phase 2 impacts in Weld County, \$1.19 million per year in the Morgan/Weld Region, and over \$3.3 million per year for the State of Colorado.

Output refers to economic activity or the value of production in the state or local economy. It is most akin to the gross domestic product, which measures output on a national basis. According to Figure 12, the new local output during construction totals \$18.7 million captured in Morgan County, about \$35.6 million for phase 2 impacts in Weld County, \$54.2 million in the Morgan/Weld region and over \$1.1 billion for the State of Colorado.

Figure 12.
Output Impacts, Taelor Solar Project, Morgan and Weld Counties, Colorado (\$M)

Category	Phase 1 Morgan County 2025-2027	Phase 2 Weld County 2025-2028	Total Morgan / Weld Region 2025-2028	Total State of Colorado 2025-2028
Construction				
Project Development and Onsite Output Impacts (Direct)	\$8.61	\$17.91	\$26.52	\$251.33
Supply Chain Impacts (Indirect)	\$8.47	\$13.83	\$21.63	\$557.48
Household Spending Impacts (Induced)	\$1.61	\$3.89	\$6.05	\$293.76
New Local Output during Construction	\$18.69	\$35.63	\$54.19	\$1,102.57
Operations (Annual, Ongoing)				
Onsite Output Impacts (Direct)	\$0.27	\$0.71	\$0.98	\$1.67
Local Revenue and Supply Chain Impacts (Indirect)	\$0.20	\$0.34	\$0.53	\$3.37
Household Spending Impacts (Induced)	\$0.06	\$0.14	\$0.22	\$3.11
New Local Long-Term Output	\$0.54	\$1.18	\$1.72	\$8.15

Source: NREL, IMPLAN, Inc., MPG Consulting.

Statewide construction impacts are the result of capturing portions of site development, labor, professional services, and materials manufacturing impacts. The new local long-term output totals over \$540,000 for Morgan County, \$1.2 million for Weld County, \$1.72 million for the Morgan/Weld region and approximately \$8.2 million for the State of Colorado.

Local Government Tax Revenue

Utility-scale solar PV projects, like other utility-scale energy generating facilities in Colorado, are assessed property taxes by a state formula based on the production and value of the power produced. As a result, the county, school district, fire district, and other governmental authorities in which the projects are located will receive increased annual revenue. This would be an entirely new revenue source for education and for local government services.

Figure 13 details the local government property tax impacts of the Taelor Solar Project. The projections use the MW-based payment projections in the “2023 Renewable Template for Estimating Property Taxes for Qualified State Assessed Renewables” developed by the Colorado Department of Local Affairs, Division of Property Taxation.⁷ Property tax is estimated and projected for 30 years to allow solar developers to include the annual expense in their project financing plan.

Figure 13.
Property Taxes, Taelor Solar Project, Morgan and Weld Counties, Colorado

Taxing District	Phase 1	Phase 2	Total (30-year)	Annual Average
Morgan County	\$ 11.62	\$ -	\$ 11.62	\$ 0.39
Wiggins Rural Fire	2.81	-	2.81	0.09
N Kiowa Bijou Groundwater Mgmt	0.01	-	0.01	0.00
Wiggins Pest Control	0.18	-	0.18	0.01
RE-50J Wiggins School	15.74	32.53	48.27	1.61
SE Weld Fire	-	8.52	8.52	0.28
Weld County	-	12.45	12.45	0.42
High Plains Library	-	2.63	2.63	0.09
Central Colorado Water Conservancy	-	0.88	0.88	0.03
Total	\$ 30.36	\$ 57.03	\$ 87.38	\$ 2.91

Source: NREL, MPG Consulting.

The Wiggins School District will generate an average of approximately \$1.6 million annually, or \$48.3 million over 30 years, including general and debt service levies. Both phases of the project lie within the Wiggins School District and will generate substantial revenue while producing little to no impact on education demand. The district bonding capacity will also be expanded with the increase in the tax base, allowing the district to finance additional facilities and programs.

⁷ State renewable energy property taxation template: <https://dpt.colorado.gov/renewable-energy>.

Morgan County will generate \$11.6 million in additional property tax, including all county levies, and Weld County will generate approximately \$12.5 million over 30 years. The Wiggins Rural Fire District (\$2.8 million over 30 years) and the Weld Rural Fire District (\$8.6 million over 30 years) will also benefit from the project.

Virtually all property tax revenue should be considered new because the parcels are currently subject to an agricultural exemption, which significantly discounts property tax. The Morgan County Assessor's Office estimates the owners of the parcels included in Phase 1 will pay a total of \$67,759 in 2023 property tax. The Weld County Assessor's office estimates the owners of the parcels in Phase 2 will contribute \$18,551 in 2023 property tax. Both amounts are collected in 2024. Figure A-3 in the appendix provides more detail on the calculation.

These figures indicate that the change in land use is expected to produce an additional \$944,192 per year for Morgan County taxing districts and an additional \$1.88 million per year for Weld County taxing districts. Wiggins School District property tax revenues from the project area would increase by about \$1.56 million per year because of the change in assessment and taxation procedures.

Appendix – Detailed Figures

The following tables show detailed local spending capture, and detailed JEDI model outputs.

Figure A-1.

Construction Spending Local Detail

Category	Phase 1 Direct Investment 2025-2027	Local Capture 2025-2027	Phase 2 Direct Investment 2025-2028	Local Capture 2025-2028	Total Direct Investment 2025-2028	Region Capture 2025-2028	State Capture 2025-2028
Materials & Equipment							
Mounting (rails, clamps, etc.)	41,605,864	0%	109,478,752	0%	151,084,617	0%	0%
Modules & Batteries	230,452,952	0%	322,461,254	0%	552,914,206	0%	21%
Electrical (wire, breakers, etc.)	63,767,122	0%	139,681,623	0%	203,448,745	0%	0%
Inverters	20,900,747	0%	39,722,272	0%	60,623,019	0%	0%
Subtotal	356,726,686	-	611,343,901	-	968,070,587	-	116,111,983
Labor							
Installation	35,700,859	10%	82,484,969	10%	118,185,828	10%	36%
Subtotal	35,700,859	3,570,086	82,484,969	8,248,497	118,185,828	11,818,583	42,546,898
Other Costs							
Permitting and Fees	385,000	100%	1,001,000	100%	1,386,000	100%	100%
Other Costs (Site Dev, Civil, other)	94,525,403	10%	177,229,407	10%	271,754,809	10%	100%
Business Overhead	49,904,033	0%	93,653,512	0%	143,557,545	0%	100%
Subtotal	144,814,436	9,837,540	271,883,918	18,723,941	416,698,355	28,561,481	416,698,355
Total	537,241,981	13,407,626	965,712,789	26,972,438	1,502,954,770	40,380,064	575,357,236

Note: Other costs include site development, civil work, and other general construction spending.

Source: NREL, Balanced Rock Power, MPG Consulting.

Figure A-2.

Operational Spending Local Detail

Operations Period (Annual)	Phase 1 Beg. 2027	Local Capture	Phase 2 Beg. 2028	Local Capture	Total Annual Budget	Region Capture	State Capture
Labor	500,000	100%	1,300,000	100%	\$1,800,000	100%	100%
Materials & Equipment	840,000	10%	1,670,500	10%	2,510,500	10%	80%
Services	1,960,000	10%	2,671,500	10%	4,631,500	10%	80%
Total	3,300,000	780,000	5,642,000	1,734,200	8,942,000	2,514,200	7,513,600

Source: NREL, Balanced Rock Power, MPG Consulting.

Figure A-3. Current Annual Property Tax Expenditure (2023 Estimated Tax)

Source:
Morgan County; Weld County.

Morgan County Parcel ID	2023 Estimated Tax	Weld County Parcel ID	2023 Estimated Tax
129704000003	\$ 175	129903000006	\$ 157
129705000003	\$ 117	129903000005	\$ 204
129705000004	\$ 20,272	129911000006	\$ 1,967
129706000001	\$ 36,212	129914000012	\$ 450
129707000001	\$ 114	122132000006	\$ 78
129707000002	\$ 114	122133000002	\$ 439
129707000003	\$ 115	122134000004	\$ 370
129707000004	\$ 114	122134000003	\$ 22
129708000002	\$ 351	129910200006	\$ 81
129709000002	\$ 117	129910100005	\$ 1,199
129717000001	\$ 467	129915100002	\$ 12
129718000001	\$ 1,157	129915000009	\$ 785
129720000001	\$ 58	129902000001	\$ 6,252
129720000002	\$ 2,496	122135000003	\$ 125
129720000003	\$ 87	122135000004	\$ 4,357
129721000003	\$ 30	129901000006	\$ 2,054
129721000004	\$ 58	Total	\$ 18,551
129721000005	\$ 257		
129731000004	\$ 546		
122331000004	\$ 4,903		
Total	\$ 67,759		

Photovoltaic - Project Data Summary based on User modifications to default values

Project Location	Morgan County
Year of Construction or Installation	2025
Average System Size - DC Nameplate Capacity (KW)	1000
Number of Systems Installed	250
Total Project Size - DC Nameplate Capacity (KW)	250000
System Application	Utility
Solar Cell/Module Material	Crystalline Silicon
System Tracking	Single Axis
Base Installed System Cost (\$/KW _{DC})	\$2,149
Annual Direct Operations and Maintenance Cost (\$/kW)	\$13.20
Money Value - Current or Constant (Dollar Year)	2024
Project Construction or Installation Cost	\$537,241,981
Local Spending	\$13,407,626
Total Annual Operational Expenses	\$65,620,070
Direct Operating and Maintenance Costs	\$3,300,000
Local Spending	\$763,200
Other Annual Costs	\$62,320,070
Local Spending	\$0
Debt Payments	\$0
Property Taxes	\$0

Local Economic Impacts - Summary Results

	Jobs	Earnings \$000 (2024)	Output \$000 (2024)
During construction and installation period			
Project Development and Onsite Labor Impacts			
Construction and Installation Labor	40.9	\$3,570.4	
Construction and Installation Related Services	67.7	\$1,402.7	
Subtotal	108.6	\$4,973.1	\$8,605.0
Module and Supply Chain Impacts			
Manufacturing	0.0	\$0.0	\$0.0
Trade (Wholesale and Retail)	5.0	\$335.8	\$1,296.2
Finance, Insurance and Real Estate	0.0	\$0.0	\$0.0
Professional Services	8.6	\$373.2	\$1,624.4
Other Services	7.1	\$1,118.8	\$4,526.8
Other Sectors	23.5	\$283.7	\$1,026.9
Subtotal	44.2	\$2,111.6	\$8,474.4
Induced Impacts	8.2	\$352.3	\$1,609.9
Total Impacts	161.0	\$7,436.9	\$18,689.3
	Annual Jobs	Annual Earnings \$000 (2024)	Annual Output \$000 (2024)
During operating years			
Onsite Labor Impacts			
PV Project Labor Only	3.9	\$272.2	\$272.2
Local Revenue and Supply Chain Impacts	0.9	\$47.3	\$202.4
Induced Impacts	0.3	\$13.5	\$61.6
Total Impacts	5.1	\$333.0	\$536.2

Notes: Earnings and Output values are thousands of dollars in year 2024 dollars. Construction and operating period jobs are full-time equivalent for one year (1 FTE = 2,080 hours). Economic impacts "During operating years" represent impacts that occur from system/plant operations/expenditures. Totals may not add up due to independent rounding.

Photovoltaic - Project Data Summary based on User modifications to default values

Project Location	Weld County
Year of Construction or Installation	2026
Average System Size - DC Nameplate Capacity (KW)	1000
Number of Systems Installed	650
Total Project Size - DC Nameplate Capacity (KW)	650000
System Application	Utility
Solar Cell/Module Material	Crystalline Silicon
System Tracking	Single Axis
Base Installed System Cost (\$/KW _{DC})	\$1,486
Annual Direct Operations and Maintenance Cost (\$/kW)	\$8.68
Money Value - Current or Constant (Dollar Year)	2024
Project Construction or Installation Cost	\$965,712,789
Local Spending	\$26,972,438
Total Annual Operational Expenses	\$117,664,684
Direct Operating and Maintenance Costs	\$5,642,000
Local Spending	\$1,700,790
Other Annual Costs	\$112,022,684
Local Spending	\$0
Debt Payments	\$0
Property Taxes	\$0

Local Economic Impacts - Summary Results

	Jobs	Earnings \$000 (2024)	Output \$000 (2024)
During construction and installation period			
Project Development and Onsite Labor Impacts			
Construction and Installation Labor	94.6	\$8,249.1	
Construction and Installation Related Services	81.2	\$4,088.1	
Subtotal	175.7	\$12,337.2	\$17,912.2
Module and Supply Chain Impacts			
Manufacturing	0.0	\$0.0	\$0.0
Trade (Wholesale and Retail)	8.9	\$656.7	\$2,361.7
Finance, Insurance and Real Estate	0.0	\$0.0	\$0.0
Professional Services	11.5	\$597.5	\$1,771.5
Other Services	14.0	\$3,326.9	\$7,943.2
Other Sectors	66.6	\$669.2	\$1,756.1
Subtotal	100.9	\$5,250.3	\$13,832.5
Induced Impacts	23.0	\$1,101.7	\$3,886.3
Total Impacts	299.6	\$18,689.3	\$35,630.9
	Annual	Annual	Annual
	Jobs	Earnings	Output
		\$000 (2024)	\$000 (2024)
During operating years			
Onsite Labor Impacts			
PV Project Labor Only	10.2	\$707.6	\$707.6
Local Revenue and Supply Chain Impacts	1.6	\$94.2	\$335.2
Induced Impacts	0.8	\$39.8	\$139.6
Total Impacts	12.6	\$841.6	\$1,182.5

Notes: Earnings and Output values are thousands of dollars in year 2024 dollars. Construction and operating period jobs are full-time equivalent for one year (1 FTE = 2,080 hours). Economic impacts "During operating years" represent impacts that occur from system/plant operations/expenditures. Totals may not add up due to independent rounding.

Photovoltaic - Project Data Summary based on User modifications to default values

Project Location	Morganweld
Year of Construction or Installation	2025
Average System Size - DC Nameplate Capacity (KW)	1000
Number of Systems Installed	900
Total Project Size - DC Nameplate Capacity (KW)	900000
System Application	Utility
Solar Cell/Module Material	Crystalline Silicon
System Tracking	Single Axis
Base Installed System Cost (\$/KWDC)	\$1,670
Annual Direct Operations and Maintenance Cost (\$/kW)	\$9.90
Money Value - Current or Constant (Dollar Year)	2024
Project Construction or Installation Cost	\$1,502,954,770
Local Spending	\$40,380,064
Total Annual Operational Expenses	\$183,252,753
Direct Operating and Maintenance Costs	\$8,910,000
Local Spending	\$2,456,460
Other Annual Costs	\$174,342,753
Local Spending	\$0
Debt Payments	\$0
Property Taxes	\$0

Local Economic Impacts - Summary Results

	Jobs	Earnings \$000 (2024)	Output \$000 (2024)	Value Added \$000 (2024)
During construction and installation period				
Project Development and Onsite Labor Impacts				
Construction and Installation Labor	135.5	\$11,819.5		
Construction and Installation Related Services	128.7	\$6,060.7		
Subtotal	264.1	\$17,880.2	\$26,517.2	\$20,657.3
Module and Supply Chain Impacts				
Manufacturing	0.0	\$0.0	\$0.0	\$0.0
Trade (Wholesale and Retail)	13.8	\$1,013.4	\$3,652.4	\$1,963.7
Finance, Insurance and Real Estate	0.0	\$0.0	\$0.0	\$0.0
Professional Services	18.4	\$941.5	\$2,910.7	\$1,571.3
Other Services	22.2	\$4,906.7	\$12,343.6	\$6,545.7
Other Sectors	96.9	\$988.5	\$2,720.9	\$1,521.3
Subtotal	151.3	\$7,850.0	\$21,627.6	\$11,601.9
Induced Impacts	35.0	\$1,682.5	\$6,046.9	\$3,216.4
Total Impacts	450.4	\$27,412.7	\$54,191.7	\$35,475.6
During operating years				
Onsite Labor Impacts				
PV Project Labor Only	14.1	\$979.8	\$979.8	\$979.8
Local Revenue and Supply Chain Impacts	2.5	\$147.1	\$526.9	\$278.6
Induced Impacts	1.3	\$60.3	\$216.5	\$115.1
Total Impacts	17.8	\$1,187.3	\$1,723.2	\$1,373.6

Notes: Earnings and Output values are thousands of dollars in year 2024 dollars. Construction and operating period jobs are full-time equivalent for one year (1 FTE = 2,080 hours). Economic impacts "During operating years" represent impacts that occur from system/plant operations/expenditures. Totals may not add up due to independent rounding.

Photovoltaic - Project Data Summary based on User modifications to default values

Project Location	Colorado St.
Year of Construction or Installation	2024
Average System Size - DC Nameplate Capacity (KW)	1000
Number of Systems Installed	900
Total Project Size - DC Nameplate Capacity (KW)	900000
System Application	Utility
Solar Cell/Module Material	Crystalline Silicon
System Tracking	Single Axis
Base Installed System Cost (\$/KWDC)	\$1,670
Annual Direct Operations and Maintenance Cost (\$/kW)	\$9.90
Money Value - Current or Constant (Dollar Year)	2024
Project Construction or Installation Cost	\$1,502,954,770
Local Spending	\$575,357,236
Total Annual Operational Expenses	\$183,252,753
Direct Operating and Maintenance Costs	\$8,910,000
Local Spending	\$7,051,680
Other Annual Costs	\$174,342,753
Local Spending	\$0
Debt Payments	\$0
Property Taxes	\$0

Local Economic Impacts - Summary Results

	Jobs	Earnings \$000 (2024)	Output \$000 (2024)	Value Added \$000 (2024)
During construction and installation period				
Project Development and Onsite Labor Impacts				
Construction and Installation Labor	487.7	\$42,550.2		
Construction and Installation Related Services	1,117.2	\$102,603.7		
Subtotal	1,604.9	\$145,153.9	\$251,331.5	\$202,323.7
Module and Supply Chain Impacts				
Manufacturing	401.8	\$46,675.7	\$159,682.0	\$65,781.6
Trade (Wholesale and Retail)	305.7	\$29,086.4	\$87,358.2	\$49,831.8
Finance, Insurance and Real Estate	0.0	\$0.0	\$0.0	\$0.0
Professional Services	288.7	\$22,192.9	\$57,762.3	\$34,529.9
Other Services	758.9	\$93,303.9	\$223,240.5	\$132,754.5
Other Sectors	742.9	\$6,878.9	\$29,434.0	\$15,981.3
Subtotal	2,498.0	\$198,137.8	\$557,476.8	\$298,879.0
Induced Impacts	1,439.0	\$97,922.2	\$293,764.8	\$170,143.4
Total Impacts	5,541.8	\$441,214.0	\$1,102,573.2	\$671,346.1
	Annual Jobs	Annual Earnings \$000 (2024)	Annual Output \$000 (2024)	Annual Output \$000 (2024)
During operating years				
Onsite Labor Impacts				
PV Project Labor Only	14.1	\$979.8	\$979.8	\$979.8
Local Revenue and Supply Chain Impacts	14.2	\$1,255.4	\$3,585.8	\$2,066.2
Induced Impacts	15.8	\$1,074.7	\$3,226.9	\$1,870.0
Total Impacts	44.1	\$3,310.0	\$7,792.5	\$4,916.1

Notes: Earnings and Output values are thousands of dollars in year 2024 dollars. Construction and operating period jobs are full-time equivalent for one year (1 FTE = 2,080 hours). Economic impacts "During operating years" represent impacts that occur from system/plant operations/expenditures. Totals may not add up due to independent rounding.