Appendix C: Economic Impact Study

Economic and Fiscal Impact Assessment for Nestlewood Solar

Clermont and Brown Counties, Ohio

November 2018

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ACRONYMS/ABBREVIATIONS

Abbreviation	Description
FTE	full-time equivalent
gen-tie	generation tie
IMPLAN	**IM**pact Analysis for **PLAN**ning
Indirect	module and supply chain
JEDI	Jobs and Economic Development Impact
JEDI PV Model	Jobs and Economic Development Impact Photovoltaic Model
kV	kilovolts
MW	megawatts
Nestlewood Solar	Nestlewood Solar I LLC
NREL	National Renewable Energy Laboratory
OPSB	Ohio Power Siting Board
PILOT	payment in lieu of taxes
the Project	Nestlewood Solar, a proposed 80-megawatt solar photovoltaic facility
the Project Area	an approximately 610-acre area located in Clermont and Brown counties, Ohio, on which Nestlewood Solar is proposed
PV	photovoltaic

1.0 PROJECT SUMMARY AND OVERVIEW OF MAJOR FINDINGS

Nestlewood Solar I LLC (Nestlewood Solar) is proposing to construct and operate Nestlewood Solar (the Project), a new 80-megawatt (MW) solar photovoltaic (PV) facility located in Clermont and Brown counties, Ohio (Figure 1). The Project is expected to provide up to 80 MW in energy generation to the regional grid. The Project will consist of conventional solar panels affixed to metal racking designed for tracking the sun, as well as access roads, electrical collector cables, batteries, pyranometers, and a 34.5-kilovolt (kV) electric generation tie (gen-tie) line within an area of approximately 610 acres (the Project Area). Nestlewood Solar is a wholly-owned affiliate of Lendlease Energy Development LLC, which, in turn, is a wholly-owned affiliate of Lendlease Americas Inc. Land use within the Project Area is primarily agricultural interspersed with some smaller forested areas. The Project will require significant capital investment, with construction expected to take place from June 2019 through March 2020.

This report, prepared on behalf of Nestlewood Solar, assesses the economic and fiscal impact of the Project. Regional economic impacts are assessed at the state level using the National Renewable Energy Laboratory's (NREL's) Jobs and Economic Development Impact (JEDI) Photovoltaics Model (JEDI PV Model) and presented in terms of employment, income, and economic output. The fiscal impact analysis provides an estimate of tax revenues that would be expected to accrue as a result of Project construction and operation.

1.1 ONE-TIME IMPACTS RELATED TO PROJECT CONSTRUCTION

Economic impacts related to Project construction are considered one-time impacts because they are limited to the construction period. Project construction would support temporary employment, income, and economic output in Ohio.

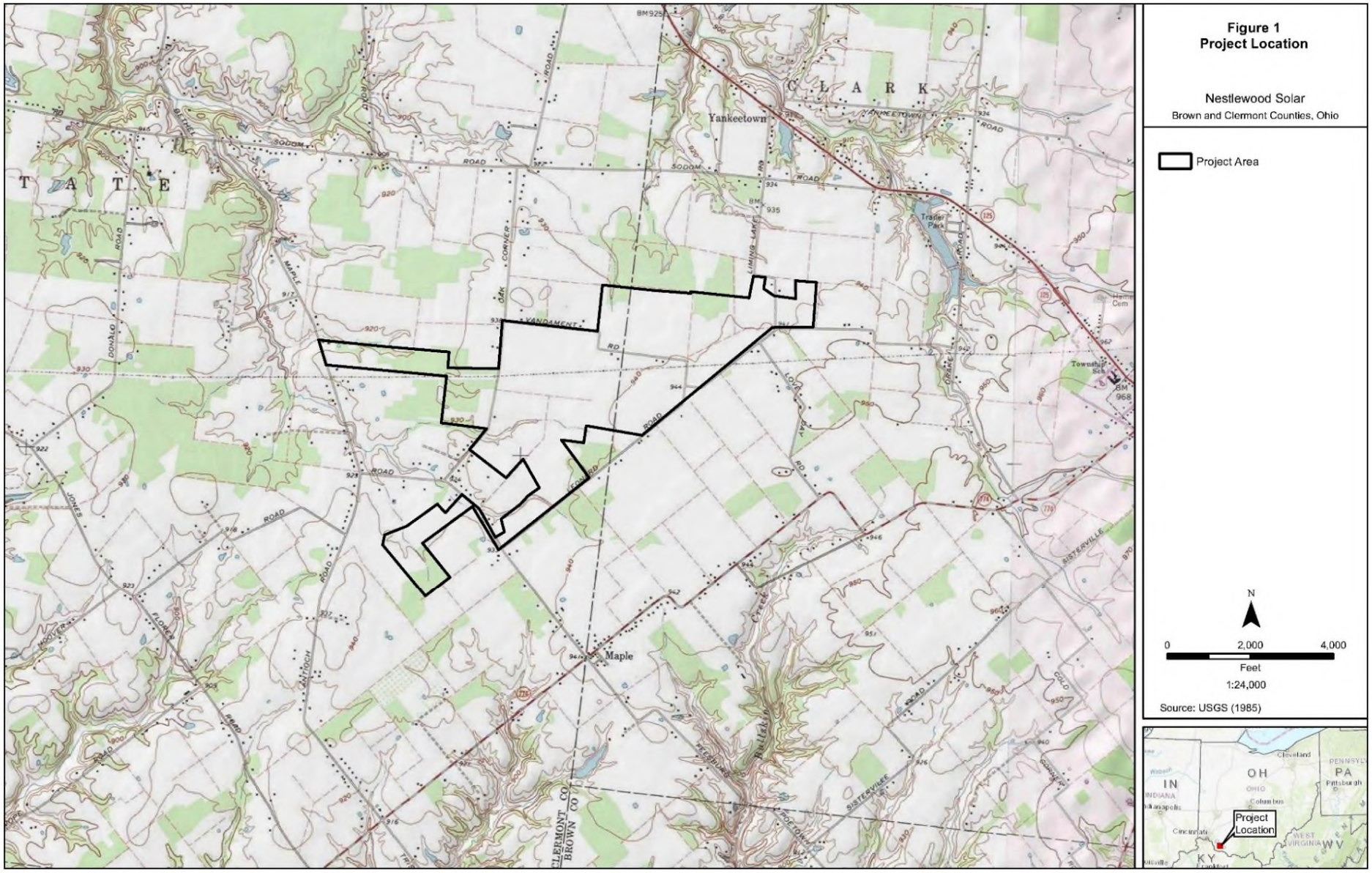
- Project construction is estimated to result in on-site employment of approximately 138 jobs that may be filled by Ohio residents, as well as an estimated 19 construction-related service jobs. Project development and on-site labor would generate an estimated $10.2 million in labor income and $11.0 million in economic output.
- Construction of the Project is also estimated to support employment, income, and output elsewhere in the state economy. Construction of the Project is expected to support an estimated 101 module and supply chain (indirect) jobs and 57 induced jobs, along with an estimated $5.3 million and $2.9 million in indirect and induced labor income. Indirect and induced output is estimated to be $16.5 million and $8.6 million, respectively.
- Overall, construction is estimated to support 314 total (direct, indirect, and induced) jobs in the state of Ohio and approximately $18.3 million in labor income, with total economic output of approximately $36.1 million.

1.2 ANNUAL IMPACTS RELATED TO PROJECT OPERATION

Once the construction phase is complete, operation and maintenance of the Project will continue to contribute to the state economy over the operating life of the Project. These annual impacts are expected to occur each year the Project operates.

- Operation of the Project is estimated to support approximately 5 total (direct, indirect, and induced) jobs in Ohio and approximately $0.3 million in labor income, with total economic output of approximately $0.5 million.

Figure 1. Project Location



- Assuming the Project would make annual payments in lieu of taxes (PILOT) equivalent to $7,000 per MW of capacity per year, operation of the Project would result in a total annual payment of approximately $5,600,000, which would be equivalent to about 0.2 percent of total combined property tax revenues for Brown and Clermont counties in 2017.

1.3 SUMMARY OF POTENTIAL ECONOMIC IMPACTS

Table 1 provides an overview of the potential economic impacts estimated to occur during construction and operation of the Project.

Table 1. Overview of Estimated Economic Impacts from the Nestlewood Solar Project

Impact Type/Measure	Jobs (FTE)	Earnings ($ million)	Output ($ million)
Construction – One-Time Impacts			
Project Development and On-site Labor Impacts	157	10.2	11.0
Module and Supply Chain Impacts	101	5.3	16.5
Induced Impacts	57	2.9	8.6
Total Impacts	**314**	**18.5**	**36.1**
Operation – Annual Impacts			
On-site Labor Impacts	3	0.1	0.1
Local Revenue and Supply Chain Impacts	1	0.1	0.2
Induced Impacts	1	0.1	0.2
Total Impacts	**5**	**0.3**	**0.5**

Notes:
FTE = Full-time equivalent
1/ Numbers may not sum due to rounding.

2.0 STATE AND LOCAL CONTEXT

2.1 DEMOGRAPHIC OVERVIEW

Brown and Clermont counties are located in southeast Ohio. Brown County encompasses 490 square miles, with land in farms accounting for about two-thirds of the total area (U.S. Census Bureau 2018a, U.S. Department of Agriculture 2012a). With a total estimated population of 43,576 in 2017, Brown County ranked 55 of 88 counties in Ohio in terms of population, with an average population density of 88.9 persons per square mile compared to a statewide average of 285.3 persons per square mile (U.S. Census Bureau 2018a, 2018b).

There are nine incorporated communities in Brown County, which together account for about one-third (31 percent) of the County population (Ohio Research Office 2018). Georgetown, located east of the Project Area is the County seat and the largest of the nine communities, with an estimated population of 4,308. Hamersville the closest incorporated community to the Project Area in Brown County, had an estimated population of 512 in 2017 (Ohio Research Office 2018).

Total population in Brown County increased by 6.1 percent from 2000 to 2010, but has since declined, decreasing by 2.8 percent from 2000 to 2017 (U.S. Census Bureau 2018b, 2018c). The overall loss of people from 2010 to 2017 was the result of net out-migration (more people left than moved to the county), with the county experiencing a modest net gain (105 people) through natural increase (more births than deaths) (U.S. Census Bureau 2018d).

Clermont County encompasses 452 square miles, with land in farms accounting for an estimated 42 percent of the total area (U.S. Census Bureau 2018a, U.S. Department of Agriculture 2012b). With a total estimated population of 204,214 in 2017, Clermont County ranked 13 of 88 counties in Ohio in terms of population, with an average population density of 436.5 persons per square mile (U.S. Census Bureau 2018a, 2018b). The 13 incorporated communities in Clermont County together account for just 13 percent of the population (Ohio Research Office 2013). The city of Milford located northwest of the Project Area (and partially located in adjacent Hamilton County) is the largest community, with an estimated population of 6,865 in Clermont County. The villages of Felicity and Bethel, the closest communities to the Project Area in Clermont County, had estimated populations of 842 and 2,785 in 2017, respectively (Ohio Research Office 2018).

Total population in Clermont County increased by almost 11 percent from 2000 to 2010 and has continued grow, increasing by 3.5 percent from 2010 to 2017 (U.S. Census Bureau 2018b, 2018c). Population growth from 2010 to 2017 was the result of both net in-migration and natural increase (U.S. Census Bureau 2018d).

The State of Ohio had a total estimated population of 11.66 million in 2017. Unlike both Brown and Clermont counties, the statewide population has been slowly growing since the turn of the millennium, increasing by about 1.6 percent from 2000 to 2010, and by a further 1.1 percent from 2010 to 2017 (U.S. Census Bureau 2018b, 2018c).

2.2 EMPLOYMENT AND THE ECONOMY

An estimated 13,972 people were employed in Brown County in 2016 (Table 2). Employment was concentrated in the agricultural sector, which accounted for 10 percent of total employment compared to just 1 percent statewide. Agricultural products include tobacco, livestock, and grain (Brown County 2018). Employment in Brown County is also relatively concentrated in construction, which made up 7 percent of total employment in 2016, compared to the state average of 5 percent (Table 2). Employment in Brown County in 2016 included a total of 921 construction jobs (Table 2). Other important industries in Brown County include plastic machinery parts, surgical equipment, and non-alcoholic beverages (Brown County

2018). Almost two-thirds of workers in Brown County travel to jobs in other counties, with more than a quarter (26 percent) commuting to jobs in adjacent Clermont County and 17 percent commuting to Hamilton County, which includes Cincinnati (U.S. Census Bureau 2018e).

Employment in neighboring Clermont County consisted of an estimated 86,083 jobs in 2016 (Table 2). Employment by sector was broadly similar to that for the state as a whole, with relative concentrations in the construction, information, and retail trade sectors. Employment in Clermont County in 2016 included a total of 6,378 construction jobs (Table 2). Clermont County's largest employers include American Modern Insurance Group and Total Quality Logistics in the professional services sector, and Siemens PLM and Tata Consultancy Services North American Delivery Center in the information sector (Clermont County 2014). Like Brown County, a large share of workers in Clermont County, about 60 percent, travel to jobs in other counties, with 42 percent commuting to jobs in Hamilton County (U.S. Census Bureau 2018e).

Table 2. Employment by Economic Sector, 2016

	Brown County		Clermont County		Ohio	
Economic Sector	Number of Jobs	Percent of Total	Number of Jobs	Percent of Total	Number of Jobs	Percent of Total
Agriculture	1,413	10	907	1	87,949	1
Forestry, fishing, and related	(D)	(D)	(D)	(D)	14,314	0
Mining	(D)	(D)	(D)	(D)	34,124	0
Utilities	(D)	(D)	318	0	20,576	0
Construction	921	7	6,378	7	326,254	5
Manufacturing	971	7	6,365	7	714,829	10
Wholesale trade	291	2	3,018	4	269,484	4
Retail trade	1,412	10	11,679	14	698,917	10
Transportation and warehousing	(D)	(D)	3,470	4	258,303	4
Information	45	0	1,595	2	86,785	1
Finance and Insurance	371	3	5,008	6	334,294	5
Real estate	469	3	4,004	5	274,701	4
Professional, scientific, and technical services	390	3	5,630	7	394,559	6
Management of Companies	27	0	638	1	145,440	2
Administrative, waste management, remediation	628	4	5,559	6	418,477	6
Education	178	1	1,209	1	156,783	2
Health care and social assistance	1,603	11	7,323	9	898,978	13
Arts, entertainment, and recreation	168	1	1,866	2	137,780	2
Accommodation and food services	975	7	7,056	8	505,339	7
Other services	999	7	5,457	6	377,953	5
Government	2,156	15	8,223	10	801,699	12
Total Employment	13,972	100	86,083	100	6,957,538	100

Notes:

(D) Not shown to avoid disclosure of confidential information; estimates for this item are, however, included in the totals.

1/ Employment estimates include self-employed individuals. Employment data are by place of work, not place of residence, and, therefore, include people who work in the area but do not live there. Employment is measured as the average annual number of jobs, both full- and part-time, with each job counted at full weight.

Source: U.S. Bureau of Economic Analysis 2018

Almost 7 million people were employed in the state of Ohio in 2016. Health care and social assistance was the largest economic sector based on employment, accounting for 13 percent of total employment, followed by the government (12 percent), manufacturing (10 percent), and retail trade (10 percent) sectors (Table 2).

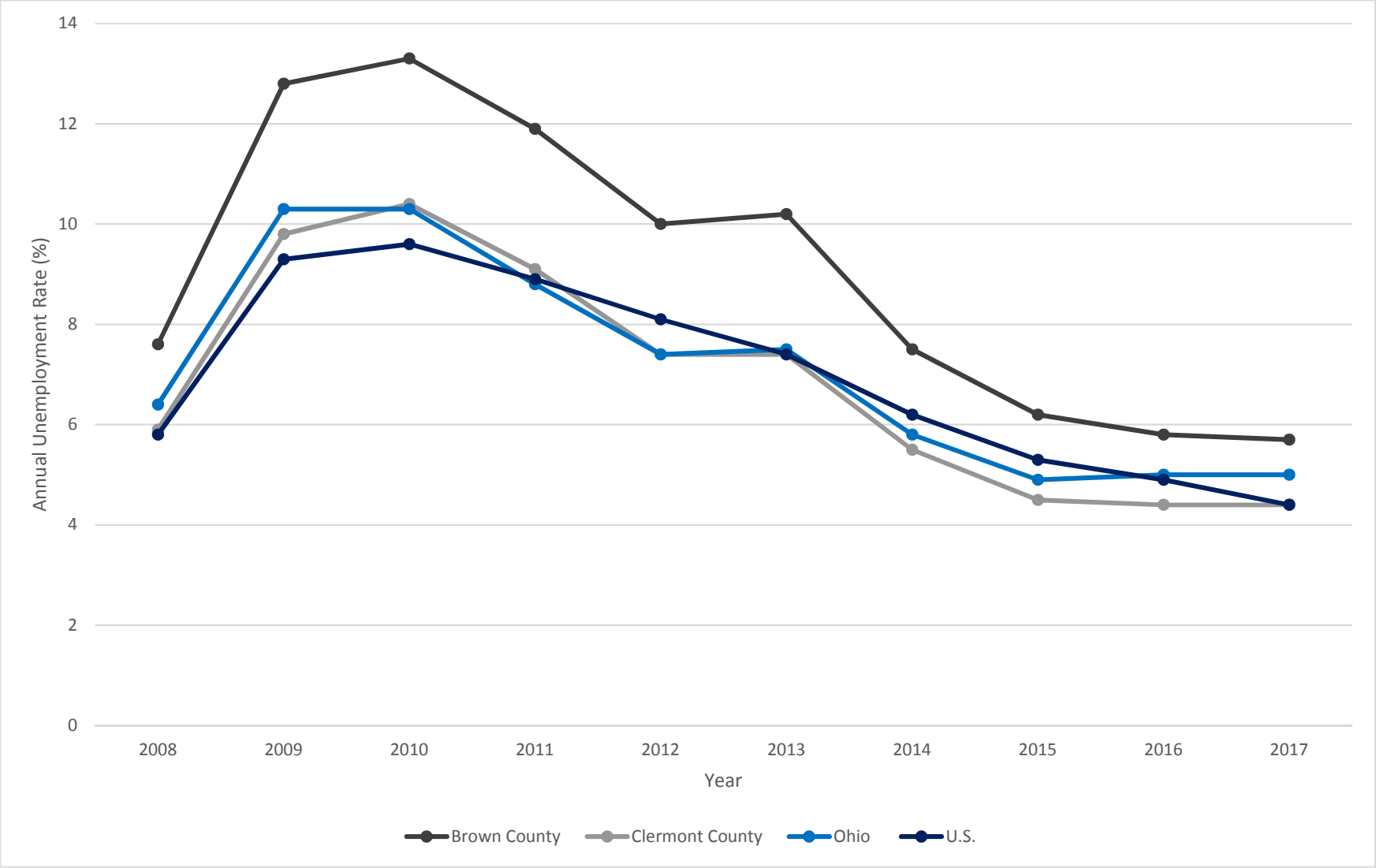
Annual unemployment rates for Brown and Clermont counties, the State of Ohio, and the United States are presented in Figure 2. Unemployment in Brown and Clermont counties peaked at the height of the recession in 2010, with respective annual unemployment rates of 13.3 percent and 10.4 percent, compared to the corresponding statewide and national averages of 10.3 percent and 9.6 percent. Unemployment rates have declined in all four areas since 2010, with annual rates ranging from 4.4 percent (Clermont County and U.S.) to 5.7 percent (Brown County) in 2017 (Figure 2).

2.3 TAX REVENUES

In Ohio, local government entities are allowed to levy *ad valorem* property taxes on real and personal property within their jurisdictions. Real property tax rates are levied locally and vary by taxing authority. The total tax rate for a parcel includes all applicable levies for the taxing jurisdictions that the parcel falls within. Taxing jurisdictions include school districts, counties, municipalities, townships, and special service districts, with each unique combination of these jurisdictions creating a separate taxing district.

A total of $32.2 million was collected in property tax revenues in Brown County in 2017. In Clermont County, a total of $278.5 million was collected. These totals include revenues for all taxing jurisdictions within each county, including school districts, municipalities, townships, and special service districts, as well as the county itself (Ohio Department of Taxation 2017).

Figure 2. Annual Unemployment Rates, 2008 to 2017



Source: Ohio Department of Job and Family Services 2018

3.0 METHODOLOGY

3.1 ECONOMIC IMPACT ANALYSIS

The economic impact of the Project will occur in two phases: 1) the initial construction phase; and 2) following construction, the operations and maintenance phase. This report assesses both phases using NREL's latest JEDI PV Model (PV12-23-16), with a separate analysis prepared for each phase. NREL is the U.S. Department of Energy's primary national laboratory for renewable energy and energy efficiency research and development. Construction and operation of the Project will generate economic benefits in local economies through direct expenditures for materials and services in the local area, and new payroll income. Benefits will also result from payments to landowners.

Renewable energy projects in the State of Ohio may be exempted from tangible personal property and real property tax payments if they meet certain conditions. The following analysis assumes that the Project will meet these conditions and will instead make annual PILOT payments to the Brown and Clermont county treasurers. These payments will also result in economic benefits.

3.1.1 The JEDI Model

The JEDI PV model is a spreadsheet tool that applies standard input–output multipliers and consumption patterns using multiplier data derived from the IMPLAN (**IM**pact Analysis for **PLAN**ning) model. IMPLAN is a commercially available economic modeling package widely used to assess the economic impacts of renewable energy and many other types of projects.

The IMPLAN model divides the economy into 536 sectors including government, households, farms, and various industries, and models the linkages between the various sectors. The linkages are modeled through input-output tables that account for all dollar flows between different sectors of the economy. Using national industry and county-level economic data derived from the U.S. Bureau of Economic Analysis, U.S. Census, and other government sources, IMPLAN models how spending in one sector of the economy is spent and re-spent in other sectors of the economy. By tracing these linkages, the model approximates the flows of initial project spending through the local economy based on the supply lines connecting the various economic sectors. These linkages vary by sector and also through regional differences in spending and employment patterns. The amount spent locally decreases with each successive transaction away from the initial expenditure due to the effects of savings, taxes or other activities that happen outside the local economy, known as leakages.

The economic relationships modeled by IMPLAN are embedded in the multipliers used by the JEDI PV Model, which allows the user to estimate the overall change in the economy that would result from construction and operation of a solar energy generating facility. The dollars spent on a project's construction and operation within a state or county are analyzed to determine the total economic impact within the local area. The direct investments in project construction and operation trigger successive rounds of spending that result in an overall increase in employment, income, and output in the local economy. Construction-related impacts are assessed as one-time impacts; Operation-related impacts are modeled as annual impacts.

The JEDI PV Model combines user inputs and industry-average values to develop overall project costs and allocate expenditures among different sectors of the economy. NREL developed the industry average values used in the model from extensive interviews with power generation project developers, state tax representatives, and others in the appropriate industries. Industry average values are expressed in costs per kilowatt of direct current capacity. The model allows the user to modify the default average values to

incorporate project-specific data, including construction material and labor costs, and local tax payments, as well as the shares of specific expenditures expected to occur within the analysis area.

The standard JEDI model assesses potential impacts at the state level, using corresponding state-level multipliers derived from IMPLAN. Using Project-specific inputs, this version of the model was used to estimate impacts at the state level for Ohio.

3.1.2 Impact Types

Total economic impacts reported by the JEDI PV Model consist of three components.[1] These components are reported separately for the construction and operation phases of the Project.

Construction Impact Types:

- ***Project Development and On-Site Labor Impacts:*** This component consists of expenditures on labor for workers engaged in on-site construction and people providing professional services in support of a project. On-site construction-related activities and services include installation labor, engineering, design, and other professional services.
- ***Module and Supply Chain Impacts:*** This component includes spending on materials and PV equipment and other purchases of goods and offsite services. Spending categories include PV modules, inverters, tracking systems, cabling, and foundations.
- ***Induced Impacts:*** These impacts result from the spending of households associated either directly or indirectly with a project. Workers employed during construction, for example, will use their income to purchase groceries and other household goods and services. Workers at businesses that supply a project during construction will do the same. Induced effects are sometimes referred to as "consumption-driven" impacts.

Operation Impact Types:

- ***On-Site Labor Impacts:*** This component consists of expenditures on labor (wages and salaries and associated impacts) for workers engaged in on-site operation of a project, including site technicians, administration, and management.
- ***Local Revenue and Supply Chain Impacts:*** This component includes expenditures on goods and services by suppliers who provide goods and services to a project, as well as property tax or PILOT contributions.
- ***Induced Impacts:*** These impacts result from the spending of households associated either directly or indirectly with a project.

3.1.3 Impact Measures

Impacts are assessed using the following measures as reported by the JEDI PV Model:

[1] These categories were re-labeled in more recent versions of the JEDI Model "to reflect a more accurate description of these impacts and facilitate user interpretation of model results" (NREL 2017). Project Development and On-Site Labor Impacts were previously labeled Direct Impacts. Module/Local Revenue and Supply Chain Impacts were identified as Indirect Impacts. The original naming conventions are more consistent with IMPLAN and other input-output models. The first category presented here does, however, differ from the typical Direct Impacts reported by IMPLAN and other input-output models because it is based on labor expenditures only and does not include direct expenditures on materials, which are included as part of the second category reported by the JEDI PV Model.

- ***Employment**:* Jobs are expressed in the JEDI PV Model as FTEs, or 2,080-hour units of labor (one job equates to one full-time job for one year). Part-time or temporary jobs constitute a fraction of a job. For example, if an engineer works just 3 months on a solar project, that would be considered one-quarter of a job by the JEDI PV Model.
- ***Earnings (or labor income):*** Earnings are expressed as the sum of employee compensation and proprietary income.
- ***Output***: Output represents the total value of goods and services produced as a result of a project and serves as a broad measure of economic activity.

3.2 IMPACT SOURCES

3.2.1 Construction

Project construction is expected to take place from June 2019 through March 2020. Construction cost estimates provided by Nestlewood Solar were used to adjust the average model input values provided by the JEDI PV Model to more accurately reflect the Project. The largest share of the overall construction cost is the purchase of the modules, inverters, and electrical components (wire, connectors, and breakers.) These components are estimated to account for approximately 71 percent of the total construction costs. None of these items are expected to be manufactured or purchased in Ohio. Expenditures that are expected to occur in Ohio include those related to installation labor, foundations, equipment rentals, permitting, engineering, surveying, and environmental review. The shares of these expenditures expected to be made in-state were estimated by Nestlewood Solar and used to adjust the default shares estimated by the JEDI PV Model.

3.2.2 Operation

Once the Project construction phase is complete, operation and maintenance of the Project will continue to contribute to the local economy. The Project will provide direct operation-related employment, and Project-related operation expenditures will generate secondary economic benefits in the local economy. Direct operation employment includes skilled technician jobs that represent well-paid local employment opportunities for Ohio residents. Typical local operation-related expenditures include vehicle-related expenditures, such as fuel costs, site maintenance, replacement parts and equipment, and miscellaneous supplies. Project-specific operation and maintenance costs developed by Nestlewood Solar were used for this analysis.

Renewable energy projects in the State of Ohio may be exempted from tangible personal property and real property tax payments if they meet certain conditions. This analysis assumes that Nestlewood Solar will meet these conditions and will, therefore, make an annual PILOT payment of $7,000 per MW (as discussed in Section 5.0). These payments will help strengthen the local tax base and may be used to support local services and infrastructure.

3.3 STUDY LIMITATIONS

The results presented in this report are indicative, preliminary estimates based on a certain set of assumptions and estimated model inputs. These assumptions and inputs are based on the best data and information available at this stage in the Project development process. Other key modeling inputs include the share of expenditures expected to occur in the analysis area (i.e., Ohio), as well as the share of workers expected to be hired in-state. The share of equipment, materials, and labor procured locally could, however, vary depending on the general contractor selected to build the Project, with different contractors

having different approaches with respect to local procurement. A general contractor has not yet been selected and the estimated local shares could, therefore, vary from those used in this analysis.

This analysis does not assess net jobs, rather it presents total or gross jobs that would be supported by Project development. A person employed during Project construction could, for example, have been employed elsewhere in the state beforehand, and, as a result, not all gross jobs represent a net additional job. A net jobs analysis would subtract job losses in other areas from the direct job gains of the new project to identify only the net increase in jobs. This type of analysis is speculative and dependent on numerous interactions and, therefore, it is more reliable and standard practice to limit the analysis to total or gross jobs created by the Project. Similarly, jobs supported elsewhere in the economy (i.e., indirect and induced jobs), identified as FTEs, are not necessarily additional jobs. Secondary impacts may support workers in their existing positions, helping them retain their jobs or expand their hours.

4.0 ECONOMIC IMPACTS

4.1 CONSTRUCTION PHASE IMPACTS

Estimated construction phase impacts for the State of Ohio are summarized in Table 3. These estimates are one-time impacts developed using the JEDI PV Model for Ohio. Job estimates are presented in FTEs, with each identified job representing 12 months (2,080 hours) of employment. Construction of the Project is expected to involve 138 on-site FTE jobs that would be filled by Ohio residents. Additional on-site positions that would be filled by out-of-state workers are not included in these estimates. Spending by out-of-state workers is, however, captured in the induced impact estimates. On-site jobs expected to be filled by Ohio workers include those associated with site work, foundations, electrical work, and other related labor needed to construct the Project. In addition, an estimated 19 construction-related service positions would be filled by Ohio workers. Jobs falling under the category of construction-related services include civil and electrical engineers, attorneys, and permitting specialists.

Construction of the Project would also support employment, income, and output elsewhere in the state, with module and supply chain impacts expected to support 101 indirect jobs in Ohio and induced impacts expected to support 57 jobs (Table 3). A large share of the estimated 101 indirect jobs are expected to occur in the construction sector as a result of in-state expenditures on materials, specifically concrete and rebar, roads, and site preparation, and local equipment rentals. Overall, construction of the Project is expected to support 314 total jobs in Ohio and approximately $18.5 million in earnings, with total output of approximately $36.1 million.

Table 3. Construction Phase Impacts in Ohio

Impact Type/Measure	Jobs[1,2]	Earnings ($ million)[2,3]	Output ($ million)[2,3]
Project Development and Onsite Labor Impacts	157	10.2	11.0
Construction and Installation Labor	138	9.0	--
Construction and Installation Related Services	19	1.3	--
Indirect Impacts	101	5.3	16.5
Induced Impacts	57	2.9	8.6
Total Impacts	**314**	**18.5**	**36.1**

Notes:
[1] Jobs are FTE for a period of one year (1 FTE = 2,080 hours). Project development and onsite labor jobs and earnings include only those positions that would be filled by Ohio residents. Positions filled by out-of-state workers are not included in these estimates. Spending by out-of-state workers is, however, captured in the induced impact estimates.
[2] Numbers may not sum due to rounding.
[3] Earnings and output are expressed in millions of dollars in Year 2018 dollars.

4.2 ANNUAL OPERATION PHASE IMPACTS

Estimated operation phase impacts for the State of Ohio are summarized in Table 4. These estimates are annual average impacts developed using the JEDI PV Model for Ohio. Operation of the Project is expected to provide direct employment for two workers, both of whom would reside in Ohio. Operation and maintenance of the Project would also support employment, earnings, and output elsewhere in the state, with local revenue and supply chain impacts expected to support one job in Ohio and induced impacts expected to support an additional job (Table 4). Overall, operation of the Project is expected to support five total jobs in Ohio and approximately $0.3 million in earnings, with total output of approximately $0.5 million. These annual average impacts are expected to occur over the life of Project operation.

Table 4. Annual Operation Phase Impacts in Ohio

Impact Type/Measure	Jobs[1,2]	Earnings ($ million)[2,3]	Output ($ million)[2,3]
Onsite Labor Impacts	3	0.1	0.1
Local Revenue and Supply Chain Impacts	1	0.1	0.2
Induced Impacts	1	0.1	0.2
Total Impacts	**5**	**0.3**	**0.5**

Notes:
[1] Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
[2] Numbers may not sum due to rounding.
[3] Earnings and output are expressed in millions of dollars in Year 2018 dollars.

5.0 TAX REVENUES

Renewable energy projects in the State of Ohio may be exempted from tangible personal property and real property tax payments if they meet certain conditions as provided in Ohio Revised Code (ORC) Section 5727.75. Instead, qualified energy projects that receive this exemption are required to make annual PILOT payments. Annual PILOT payments are determined based on the size of the Project and the share of the construction workforce normally resident in the State of Ohio.

According to ORC 5727.75, tangible personal property of a qualified energy project using renewable energy resources is exempt from taxation for tax years 2011 through 2021, if all the following conditions are satisfied:

- An application is filed for certification of the energy project as a qualified energy project with the director of the Ohio Development Services Agency on or before December 31, 2020.
- An application is filed with the Ohio Power Siting Board (OPSB) for a certificate under ORC section 4906.20.
- The County Commissioners of a county in which the energy project is located either adopt a resolution approving the application submitted to the Ohio Development Services Agency or pass a resolution declaring the county an alternative energy zone.
- Construction is initiated by January 1, 2021, with construction defined as either the date the application is filed with the OPSB or the date the contract for construction or installation is entered into, whichever is earlier.

If the applicant is granted an exemption from taxation from any of the tax years 2011 through 2021, the qualified energy project is also exempt from taxation for tax year 2022 and all following years.

Estimated PILOT “base” payments range from $6,000 per MW of nameplate capacity for projects where the majority (75 percent or more) of total construction jobs (measured in FTEs) are filled by workers normally resident in Ohio to $8,000 per MW for projects where Ohio residents account for a smaller share (50 to 60 percent) of total employment. PILOT payments are $7,000 per MW of capacity for projects where 60 to 75 percent of the construction workforce consists of Ohio residents. Under ORC 5727.75, County Commissioners may also require an additional service payment, with a combined service and PILOT (“base”) payment not to exceed $9,000 per MW.

With an estimated 70 percent of the construction labor force estimated to be hired in-state, the following analysis assumes that the Project would qualify for or negotiate annual PILOT payments of $7,000 per MW of capacity for a total annual payment of $560,000. This estimated total would be equivalent to about 0.2 percent of total combined property tax revenues for Brown and Clermont counties, which were $310.7 million in 2017 (Ohio Department of Taxation 2017). In Brown County alone, payments would be approximately $280,000 per year and equivalent to approximately 0.9 percent of existing property tax revenues, which were $32.2 million in 2017.

6.0 QUALIFICATIONS OF THE PREPARER

This report was prepared by Mr. Matt Dadswell of Tetra Tech, Inc. with inputs provided by Nestlewood Solar, as referenced in the report. Mr. Dadswell has a first class, joint honors, bachelor's degree in Economics and Geography from Portsmouth Polytechnic in England; a master's degree in Geography from the University of Cincinnati; and completed two years of doctoral study in Geography at the University of Washington. Mr. Dadswell has 24 years of experience preparing economic and social analyses for energy projects throughout the United States.

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Summary: Application Appendix C electronically filed by Mr. Michael J. Settineri on behalf of Nestlewood Solar I LLC