

Solar Generation Siting Final Report
Weirs Creek Solar
KY State Board on Electric Generation and Transmission
Siting Case #2024-00099



ATTACHMENT C

**Review and Evaluation of the Electronic
Application of Weirs Creek Solar, LLC for a Certificate to
Construct an Approximately 150 Megawatt Merchant
Solar Electric Generating Facility in Webster County and
Hopkins County, Kentucky
Pursuant to KRS 278.700 et seq. and 807 KAR 5:110**

Siting Board Case No. 2020-00263

**Review of *Economic Impact & Land Use Analysis*
Application Exhibit 10 - Attachment A**

Prepared for

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Executive Summary

The *Economic Impact & Land Use Analysis of the Weirs Creek Solar Project* (the “Report”) stands out as an outstanding model for such analyses of economic impact. The report is thorough, organized, and complete, and its narrative and findings well supported.

Based upon the representations of the Applicant through its Report, there is a positive, significant, short-term initial economic during the Construction Phase for the Commonwealth of Kentucky, Webster and Hopkins Counties, and their regions. During the longer Operational (generation) phase, there are likewise positive economic impacts for the region and the state.

Project Factual Summary

Weirs Creek Solar, LLC is requesting authorization to construct and operate a 150-megawatt alternating current (MWac) solar electric generating facility in Webster and Hopkins Counties, Kentucky, on approximately 2,260 leased acres. Production and transmission will occur on 810 acres within the fence line of that property. The project looks to employ approximately 384,128 photovoltaic solar panels and racking, , 41 inverters, a project substation transformer, and 8.5 miles of transmission lines connecting to the Big Rivers Electric Corporation’s Reid-Hopkins 161 kV non-regulated transmission line. A battery storage system is also anticipated.

Weirs Creek Solar, LLC is a limited liability company and an indirect subsidiary of NextEra Energy Resources, LLC, organized under Kentucky laws with its principal address recorded as being 700 Universe Blvd., Juno Beach, FL 33408, with their registered Kentucky agent being Corporations Service Company, 421 West Main Street, Frankfort, KY 40601. The Applicant’s Report was prepared by Strategic Economic Research, LLC, 2705, 2705 Kolby Court, Bloomington, IL 61704.

The report is divided into 12 sections or chapters, designated as the Executive Summary (including summaries of economic impact); U. S. Solar PV Industry Growth and Economic Development (covering the industry generally); Project Description and Location (describing the project and, by county, the economic and demographic statistics, and agricultural statistics); Land Use Methodology; Land Use Results (analyzing the projected future agrarian usage as evaluation baselines by county); Economic Impact Methodology (a narrative of the IMPLAN usage for computing economic Impact); Economic Impact Results (setting forth the detailed findings under IMPLAN; the Tax Benefits (arising from anticipated use of the property in solar electric generation); Appendix; Glossary; References; and Curriculum Vitae (résumés). Each section is thorough, its contents detailed, and its analysis complete.

The following table outlines the quantitative findings economic impact in the Report:

	Kentucky	Hopkins County	Webster County	
Construction Phase (Phase total)				
Jobs - Direct, Indirect, Incidental, F/T	784.0	273.0	50.0	
Earnings - Direct, Indirect, Incidental (In millions)	\$61.0	\$16.3	\$5.0	
Output (in millions)	\$151.0	\$39.0	\$9.1	
Operational Phase (annual)				
Jobs - Direct, Indirect, Incidental, F/T	26.9	16.5	4.5	
Earnings - Direct, Indirect, Incidental (In millions)	1.800	0.951	0.372	
Output (in millions)	7.7	4.0	2.2	
	Kentucky State	Hopkins County	Webster County	State Total
Tax Benefits (over Project life)				
County Property Taxes (in millions)	\$2.2	\$18.8	\$8.2	\$29.2
	<i>Note: Tax numbers may be influenced by IRB and PILOT Program bonds</i>			
Sales, Use, Excise Taxes	Not reviewed			
KY Income and Franchise Taxes	Not reviewed			
Local Occupational Taxes	Not reviewed			

Review Criteria and Methodology

This review encompasses the entirety of Weirs Creek Solar, LLC's Application, including its *Economic Impact & Land Use Analysis of the Weirs Creek Solar Project*, and *Responses to ... Requests for Information*.

Methodology. The *Economic Impact Report* and its analyses of both Construction and Operational Phases of the Project were reviewed to consider:

- Specific aspects of the Project - specific tasks and activities; their chronology and timelines; and the geographic aspects of the Project and their effects;
- The quantification and/or estimation of the above-listed criteria for impact upon state, regional and local areas within the Commonwealth;

- Other civil, social and subjective (non-monetary) economic effects within the community, region, and state;
- Potential impacts, either positive or negative, to current use or other industries and businesses; and
- Electrical output compared to current agrarian production.

Basis for Analysis. KRS 278.706 states that any person seeking to obtain a construction certificate to construct a merchant generating facility must file:

KRS 278.706

* * * *

(2) A completed application [including] the following:

(j) An analysis of the propose facility’s economic impact on the affected region and the state.

Criteria for analysis. This review and evaluation of Applicant Weirs Creek Solar, LLC’s proposed Solar Energy Project (“Project”) is based upon projected short-term Construction- and long-term Operational Phases, as described by the Applicant and detailed by responses to questions posed to that Applicant. The Applicant’s Report and their Responses are analyzed for each Phase, using the following criteria:

Direct impacts. Wages paid to employed workers for Construction and Operational Phases.

Indirect Impacts. Purchases of goods, materials and services necessary for the construction and maintenance of the Project facilities.

Induced Impacts. These are socioeconomic changes arising as a result of increases in local spending as a result of the Project.

Taxes.

Kentucky Income and Franchise Taxes.

Local Occupational Taxes.

Kentucky Commonwealth and Local Property Taxes.

- Real estate taxes
- Tangible Personal Property Taxes
- Fees in lieu of property taxes (IRB and PILOT)

Kentucky Commonwealth Sales Taxes.

Other Benefits. Outlining other contributions to the Commonwealth, county and the region.

Electrical and other Outputs. This criterion is a measure of the value of goods and services produced. Stated differently, “output” is the value of production by the industry or producer in a calendar year or, in the present case, for the period of production.¹

By definition, each criterion is reviewed in the context of *net* economic impact: the very terminology demands that in each instance there is an existing “baseline” from which positive or negative economic results may arise.

The analyses were conducted on a statewide- and regional/county basis.

Applied Review and Analysis

Review Summary

The Report proposes that the Project will have positive economic impacts on the counties and commonwealth economy, particularly during the Construction Phase. Discussion of each criterion follows. All sums are in current dollars:

Direct, Indirect and Induces Impacts

Direct, Indirect and Induced impacts. The applicant has outlined the basis for concluding the Project is projected to produce direct state impact during the Construction Phase of \$151 million and 784 new jobs in the state; County investments include a combined \$48.1 million and 323 jobs in Webster and Hopkins Counties.² These numbers presumably include labor temporarily re-locating to Kentucky for construction. The Applicant’s Construction Phase is likely to have a significant short-term impact on the regional and Commonwealth economies.

For the Operations Phase, employment of 26.9 (27) full-time equivalent persons with annual earnings of \$1.8 million are projected. Output of \$7.7 million annually is projected.

These numbers appear to be in line with similar projects.

Output

The generation of electricity by the Project (Output), is measured by positive cash flow, for the generation and sales of produced electricity. For this Project, the annual value of said output is projected to be 150 MWac. The monetary value of said output is expected to greatly exceed the value from current (agrarian) property use.

¹ See, e.g., *Output Data*, <https://support.implan.com/hc/en-us/articles/115009505807-Output-Data#:~:text=In%20IMPLAN%2C%20Output%20is%20the%20value%20of%20production,margin%20only%3B%20it%20does%20not%20represent%20revenues%20%28sales%29.>

² *Report*, pages 11-2.

Tax Impacts

Kentucky taxes for the Report review are grouped as property taxes, sales, use and excise taxes, income/franchise-based taxes, and employment taxes for the purposes of this review.

Property taxes include both real estate and personal property taxes:

Property taxes, currently based upon farm usage, should not change drastically during the short Construction Phase. Total property taxes, as outlined in the table above, are projected to be \$29.2 million over the life of the project. The Applicant may pursue an Industrial Revenue Bond (IRB) agreement and Payments in Lieu of Taxes (PILOT) agreement that will reduce projected taxes.³ As both have yet-to-be negotiated, any tax reductions have not been projected.

Sales and use taxes are taxes paid for purchasing goods and services within the Commonwealth, or with the complementary use tax, for property and services not taxable or undertaxed at the point of origin for which the commonwealth imposes their own tax. There is no projection of any use taxes upon the use, storage or consumption of supplies and materials purchased outside Kentucky.

State income and franchise taxes. The Applicant taxpayer is a limited liability company (LLC). LLC's are not directly taxed for income purposes by the Commonwealth, but their ownership may be. LLC members may be taxed as single-member LLC (sole proprietorship which files federal and/or state income taxes); as a partnership whose partners file taxes (liable for self-employment taxes and income taxes); as C corporations, taxed as such; or S Corporations who pay corporate income taxes. In addition, LLC's file an Annual Report with the Secretary of State with a \$15 fee.

Employment taxes would include primarily local occupational taxes. These are sometimes grouped with business taxes as they are local income-based taxes but paid by the employer from withholding of the employees' wages. There is no projection of these taxes.

Conclusions and Recommendations

The construction and operation of the Weir Creek Solar, LLC solar project facility in Webster and Hopkins Counties, Kentucky will provide significant positive economic benefits to that region and Commonwealth.

³ See *Weirs Creek Solar, LLC's Responses to Siting Board Staff's First Request for Information, Cases No. 2024-00099, Question and Response 65*, filed with the Siting Board, August 5, 2024.

The Project will provide significant positive economic effects to the region and Commonwealth during the short Construction Phase. Measurable property investment, employment, including indirect and induced impacts, will realize both local investment and (unmeasured) payroll and occupational tax increases.

During the Operational Phase, there will be lesser investments in employment and capital, but area and state property taxes may be increased, contingently based upon IRB and PILOT program admission.

There was no analysis of economic impact during the remediation following the Project, but such should be deemed to have minimal impact as decommissioning intends to return the real estate to its original condition. Labor and material costs, plus any incidental taxes, would usually be minimal.

Electric Generation and Transmission Siting Studies and Analyses – Economic Impact - Solar – Before the Kentucky Board on Electric Generation and Transmission Siting

In Re: Banjo Creek solar LLC, Case No. 2020-00263, Application for Certificate of Construction for an Approximately 120 Megawatt Electric Solar Generating Facility in Graves County, Kentucky (December 2023)

In Re: Bluebird Solar LLC, Case No. 2021-00141, Application for Certificate to Construct an Approximately 90 Megawatt Merchant Electric Solar Generating Facility in Harrison County, Kentucky (September 2022)

In Re: Blue Moon Energy LLC, Case No. 2021-00414, Application for Certificate to Construct an Approximately 70 Megawatt Merchant Electric Solar Generating Facility and Nonregulated Electric Transmission Line in Harrison County, Kentucky (May 2022)

In Re: Sebree Solar, LLC, Case No 2021-00072, Application for Certificate to Construct an Approximately 60 Megawatt Merchant Solar Electric Generating Facility in Meade County, Kentucky (circa November 2021)

In Re: McCracken County Solar LLC, Case No 2020-00392, Application for Certificate to Construct an Approximately 60 Megawatt Merchant Solar Electric Generating Facility in Meade County, Kentucky (circa September 2020)

In Re: Meade County Solar LLC, Case No 2020-00390, Application for Certificate to Construct an Approximately 40 Megawatt Merchant Solar Electric Generating Facility in Meade County, Kentucky (circa September 2020)

In Re: Sebree Solar II, LLC, Case No. 2022-00131, Application for a Certificate to Construct an Approximately 150 Megawatt Merchant Solar Electric Generating Facility in Henderson County, Kentucky (circa July 2022)

In Re: Golden Solar, LLC, Case No. 2020-00243, [Application] for Certificate of Construction for an approximately 100 Megawatt Merchant Electric Solar Generating Facility in Caldwell County, Kentucky (circa November 2022)

As a subcontractor to the primary contractor for such study, reviewed the Applicant project reports of direct, indirect and induced economic impacts on the state and community; state corporate income, personal income, and occupational taxes; real and person property taxes; sales and use taxes; and net output value of goods and services produced.

Tax Studies – Real & Personal Property, Sales and Use, and Local Taxation Including Available Incentives, Deductions and Exemptions

Planning, Design and Analysis of Electrical Power System Upgrades – Tennessee

Performed construction contract review for the purposes of making a proposal for electronic system upgrades, to determine application of major taxes – Income, property sales and use taxes, rates, exemptions, exceptions, and available incentives applicable to Michigan.

Tax Studies – Kentucky Occupational Taxes

Research to identify local occupational taxes for proposed job sites

Prior to initiation and execution of contractor work projects, researched local occupation taxes for applicability, rates, registration and returns.

Tax Studies – Sales and Use Taxation

Planning, Design and Analysis of Electrical Power System Upgrades – Michigan

Performed construction contract review for the purposes of making a proposal for electronic system upgrades, to determine application of sales and use – and state tax exemptions deductions and incentives available.

Taxes - Corporate Registration to Do Business and Pay Taxes and Fees

Registration of a Business and For Taxation - Pennsylvania

Made applications with the Pennsylvania Secretary of State for state registration and with the state Department of Revenue for all state and local applicable taxes.

Registration and Management of State Personal and Gross Receipts Taxes

Registration for Taxation – New Mexico

Determine applicable taxes and means of registration for payment of New Mexico personal and gross receipts taxes.