

Solar Generation Siting Final Report

Crab Run Solar

KY State Board on Electric Generation and Transmission Siting

Case #2025-00276



ATTACHMENT C

**Review and Evaluation of the Application of Crab Run
Solar Project, LLC for a Certificate of Construction for an
up to 45 Megawatt Merchant Electric Solar Generating
Facility in Marion County, Kentucky
[Pursuant to KRS 278.700 and 807 KAR 5:110]
Siting Board Case No. 2025-00276**

**Review of *Economic Impact* Report
Application Tab 10**

Prepared for

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By

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Executive Summary

Based upon the representations of the Applicant through its *Economic Impact Report*¹, there is a positive, significant, short-term initial economic impact during the construction phase for the Commonwealth of Kentucky, Marion County, and its region. During the longer operations (generation) phase, there are lesser-but-positive economic impacts. The *Economic Impact Report* is concise, informative and complete in its analyses and details.

Project Factual Summary

Crab Run Solar Project, LLC is requesting authorization to construct and operate a 45-megawatt photovoltaic (PV) generation facility in Marion County, Kentucky. The project will include between 411 and 413 acres.² These acres enclose the 245 acres of the project boundary.³

The generating facility will consist of 110,052 ground-mounted photovoltaic (PV) solar modules (arrays) and ancillary equipment – inverter(s), transformer(s), substation, switching station, an operations and maintenance building, means of access, and associated transmission, cable and safety equipment.

The Applicant, Crab Run Solar Project, LLC, a wholly owned subsidiary of Savion, LLC is a limited liability company organized under Delaware laws. The Applicant's *Economic Impact Report* ("Report") was prepared by Joshua C. Pinkston, Ph. D., Consulting Economist, 13115 Harpy Eagle Ct., Louisville, KY 40245.⁴

The construction phase estimated total costs are projected to be \$37.6 million; the total economic impact from labor is estimated to be \$7.6 million from 176 jobs of all types⁵; and one-time tax revenues of all types are estimated at \$67,000. The operations (generation) phase expects 3.34 jobs creating modest \$342,842⁶ annual labor income but a cumulative total over 30 years will be substantial. Occupational taxes will be modest annually. Projected real estate taxes during this phase, which are currently approximately \$2,781 annually, are projected to increase five- to six-fold.⁷ Personal property taxes, including "manufacturer's machinery", will

¹ *Economic Impact Report*, Tab 10, Attachment H.

² See, e.g., the following from the *Application of Crab Run Solar Project, Kentucky Case No. 2025-00276*: Certificate of Application, pages iv & 7 (412 acres); Exhibit B, Property Valuation Study, page 1 (411 acres); Attachment H, Economic Impact, page1, Exhibit D, page 2, Tab 2, Proposed Site Description, page 1, & Tab 12, Site Assessment Report, page2, all 412 acres; and Traffic Impact Study (413 acres).

³ *Application*, Exhibit B, page2; Exhibit G, page1; Tab 12, Page2.

⁴ Tab 10, Economic Impact Report, page 10.

⁵ Economic Impact [report], page 9.

⁶ *Ibid*, page 11.

⁷ *Ibid*, page 13.

realize a substantial increase to present levels.⁸ The Applicant has suggested it may opt to make payments for Industrial Revenue Bonds (IRB) and Payments in Lieu of taxes (PILOT), rather than taxes, over the 30-year life of their Project. The report offers little commentary of economic impact resulting from post-Project remediation of the involved properties.

Review Criteria and Methodology

This review encompasses the entirety of Crab Run Solar Project, LLC’s Application, including its “Attachment H”, *Economic Impact Report* (“Economic Report”), that used IMPLAN modeling.

Methodology. The *Economic Impact Report* and its analyses of both construction and operations 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 effect;
- 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; and
- Potential impacts, either positive or negative, to current use or other industries and businesses
- 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 proposed facility’s economic impact on the affected region and the state.

Criteria for analysis. This review and evaluation of Applicant Crab Run Solar Project, LLC’s proposed Solar Energy Project (“Project”) is based upon projected short-term construction- and

⁸ *Ibid*, page 14.

long-term operations 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 operations 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 because of increases in local spending by 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 and Use Taxes.

Other Benefits. Includes 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.⁹

Each criterion is reviewed in the context of net economic impact: the vary 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-, regional- and county bases.

⁹ 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>.

Applied Review and Analysis

Review Summary

The Report is complete, detailed and supportive of the claims of positive economic impacts at the county, local, and state levels.

Overall, the proposed Project will have positive economic impacts on the county, regional and commonwealth economy, particularly during the construction phase. Discussion of each criterion follows. All sums are in current dollars. The Report finds that there are two primary impacts, the first during the construction phase, creating an estimated 176 new jobs over a projected 8 month period, generating new labor income of \$7.6 million; and a second during the operations phase, estimated to be 30 years, producing a combined 3 direct, indirect and induced jobs annually paying \$396,159 per year and a total estimated labor income of \$19.5 million in payroll over the life of the Project.¹⁰

The Report utilizes IMPLAN, a recognized means for projecting economic impacts for both phases. The author provides an exhaustive narrative of IMPLAN and its applications.

The report concludes that of the property impacted, 74% is currently pasture, 23% in cultivated crops (combined, 97%), and the remainder in residences and similar uses.¹¹

Economic Impact

The numbers provided are generally for Marion County; however, the Report notes that the 7-county local area impact (and, by inference, the state impact) will only be modestly higher as all work is expected to be completed in Marion County.

Construction Phase. Total county and regional construction costs are estimated to be \$37.6 million. Construction is projected to create up to 122.48 direct jobs (worker job plus proprietor income), plus 37.80 indirect and 15.43 induced jobs. This projects to a (rounded) \$7.5 million in labor income.¹² The total economic impact is estimated to be \$46.5 million.¹³

Operations Phase. During the projected 30-year operations phase, there are expected to be 2.00 direct, 0.88 indirect, and 0.46 induced jobs, resulting in \$1.65 million in employment income. Local landowners will additionally realize income from leases of the Project property that exceed current income from present (agrarian) use.¹⁴

¹⁰ *Ibid, page 1.*

¹¹ *Ibid, page 3.*

¹² *Ibid, page 8.*

¹³ *Ibid, page 9.*

¹⁴ *Ibid, page 11.*

Taxes, IRBs and PILOT Payments.

Kentucky and its subdivisions have a variety of income/occupational taxes, property taxes (and IRBs and PILOT), business taxes, and sales and use taxes for which the Project will benefit county, local, and state government operations.

Occupational taxes, assessed on local wages, are expected to create roughly \$67,000 in revenue during the construction phase and, during the operations phase, annual revenue of \$2,649 (or \$79,470 over the projected 30 years).¹⁵

Property taxes are expected to increase by multiples due to the valuation structure Kentucky utilizes for various property types: agricultural properties are valued lower for the tax base than the valuation under the project.¹⁶ The Applicant has reserved the right to utilize Industrial Revenue Bonds (IRBs) and Payments in Lieu of Taxes (PILOT) during the life of the operations phase.¹⁷

Sales and use taxes and other taxes were not addressed and are assumed to have minor economic impact.

The Applicant also notes that electrical generation projects like the present require and utilize little public resource services.¹⁸

Other Considerations

There was no direct 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.

Conclusions and Recommendations

The construction and operation of the Crab Run Solar, LLC solar project facility in Marion County, Kentucky will provide significant positive economic benefits to the region and Commonwealth.

The Project will primarily result in significant positive economic effects to the county, region and Commonwealth during the relatively short construction phase. Measurable employment, payroll and associated occupational taxes, together with indirect and induced impacts, will

¹⁵ *Ibid*, page 13.

¹⁶ *Ibid*, page 13.

¹⁷ *Ibid*, page 14.

¹⁸ *Ibid*, page 15.

realize both payroll and occupational tax increases.

During the operations phase, the economic impact is expected to be smaller and spread over the life of the Project. A modest payroll will provide employment for a few individuals with modest state income and local occupancy taxes in the Commonwealth and Marion County. With IRB and PILOT agreements possible over the estimated 30-year life of the operations phase (projected range: 30 to 40 years) it is difficult to project accurately the taxes arising from the Project.

There was no direct analysis of economic impact during the remediation following the Project, but such may 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: Crab Run Solar Project, LLC, Case No. 2020-00263, Application of Crab Run Solar Project, LLC for a Certificate of Construction for an Approximately 120 Megawatt Electric Generating Facility in Marion County, Kentucky

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.