

Russellville Solar LLC
Kentucky State Board on Electric
Generation and Transmission Siting
Application

Application Documents

Case No. 2021-00235

March 2022



APPLICATION OF RUSSELLVILLE SOLAR LLC
FOR A CONSTRUCTION CERTIFICATE TO CONSTRUCT A
MERCHANT ELECTRIC GENERATING FACILITY
LOGAN COUNTY, KENTUCKY
CASE NO. 2021-00235

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1. Applicant Information

REQUIREMENT: per KRS 278.706 (2)(a); *The name, address, and telephone number of the person proposing to construct and own the merchant electric generating facility.*

COMPLIANCE: Please see below for the requested information.

- Name: Russellville Solar LLC
Attn: Stefan Eckmann
- Address: 222 Second Ave S.
Suite 1900
Nashville, TN 37201
- Phone: (615) 577-4786

2. Description of Proposed Site

REQUIREMENT: per KRS 278.706 (2)(b); *A full description of the proposed site, including a map showing the distance of the proposed site from residential neighborhoods, the nearest residential structures, schools, and public and private parks that are located within a two (2) mile radius of the proposed facility.*

COMPLIANCE: A new 173-megawatt solar photovoltaic (PV) facility, known as Logan County Solar (the project), is proposed to be built in Logan County, Kentucky. The project proposes connecting to Tennessee Valley Authority's (TVA) adjacent existing Springfield-Logan Aluminum 161-kilovolt transmission line. The proposed solar PV facility would occupy approximately 1,088 acres of a 1,569-acre project site located approximately two miles southwest of the city of Russellville. The project site is within a rural agricultural area and is bounded on the west by Watermelon Road and the RJ Corman Railroad, which roughly parallels U.S. Route 79 approximately a quarter mile south of the highway. A.P. Miller Road traverses western and central portions of the project site, and Joe Montgomery Road traverses eastern portions of the project site. The project site is predominantly flat to gently sloping agricultural land with scattered forested areas and some wetlands, streams, ponds, and karst features. Several residences and agricultural buildings are scattered across the project site. The PV panel and inverter blocks in close vicinity and not separated by public roads would be enclosed together by chain-link security fencing. The solar facility would consist of a solar array proposed to contain crystalline silicon or thin film PV panels attached to ground-mounted single-axis trackers, central inverters, several medium voltage transformers and main power transformers, substation, switching station, battery energy storage system, operations and maintenance building, access roads, and all associated cabling and safety equipment. The placement of the facility components would avoid and minimize impacts to environmental resources to the maximum extent possible.

There are no public or private parks within a two-mile radius of the proposed facility. A map showing residential neighborhoods, the nearest residential structures, schools, churches, nursing homes, and hospitals in the vicinity of the project is presented in Attachment A.

3. Public Notice Evidence

REQUIREMENT: per KRS 278.706 (2)(c); *Evidence of public notice that shall include the location of the proposed site and a general description of the project, state that the proposed construction is subject to approval by the board, and provide the telephone number and address of the Public Service Commission. Public notice shall be given within thirty (30) days immediately preceding the application filing to:*

- 1. Landowners whose property borders the proposed site; and*
- 2. The general public in a newspaper of general circulation in the county or municipality in which the facility is proposed to be located.*

COMPLIANCE: Attachment B contains a sample letter that was sent out via certified mail on February 17, 2022, to announce this application to landowners whose property borders the proposed site. The list of the names and addresses of those landowners, as well as copies of the certified mail receipts are included in Attachment B.

Attachment B also includes the public notice announcing this application that was published on February 15, 2022, in the *News-Democrat & Leader*, the newspaper of general circulation in Logan County.

4. Compliance with Local Ordinances and Regulations

REQUIREMENT: per KRS 278.706 (2)(d); *A statement certifying that the proposed plant will be in compliance with all local ordinances and regulations concerning noise control and with any local planning and zoning ordinances. The statement shall also disclose setback requirements established by the planning and zoning commission as provided under KRS 278.704(3).*

COMPLIANCE: Russellville Solar LLC certifies that the project will be in compliance with all local ordinances and regulations concerning noise control, and with any applicable local planning and zoning ordinances. Currently, the setback requirements pertaining to the proposed solar facility are contained in the Logan County Ordinance No. 19-920-06, *An Ordinance Establishing Minimum Setback Requirements for Solar Farm Installations in Logan County* and the subsequent amendment to Ordinance No. 19-920-06 (Attachment C). Logan County stipulates the following setbacks for solar facilities or “solar farms,” meaning “any device, structure or part of a device or structure (i.e. array, panel, etc.) installed for the sole purpose of the collection, inversion, storage and distribution of solar energy”:

- 100 feet from adjacent property boundary lines and municipal roadway or railway ROWs
- 250 feet from residences, schools, churches, hospitals, nursing facilities, and cemeteries

In addition to the aforementioned setbacks, Ordinance No. 19-920-06 stipulates that access to the site must be controlled by a fence and vegetative buffer to shield facilities from view. The ordinance was amended on February 22, 2022 to allow existing vegetation along the project perimeter to satisfy the vegetative buffer requirement and allow adjoining landowners to waive the vegetative buffer and/or visual screening. Public notice of the ordinance amendment and the amendment language is contained in Attachment C.

An affidavit regarding these certifications is submitted as Attachment C.

5. Setback Requirements

REQUIREMENT: per KRS 278.706 (2)(e); *If the facility is not proposed to be located on a site of a former coal processing plant and the facility will use on-site waste coal as a fuel source or in an area where a planning and zoning commission has established a setback requirement pursuant to KRS 278.704(3), a statement that the exhaust stack of the proposed facility and any wind turbine is at least one thousand (1,000) feet from the property boundary of any adjoining property owner and all proposed structures or facilities used for generation of electricity are two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility, unless facilities capable of generating ten megawatts (10 MW) or more currently exist on the site. If the facility is proposed to be located on a site of a former coal processing plant and the facility will use on-site waste coal as a fuel source, a statement that the proposed site is compatible with the setback requirements provided under KRS 278.704(5). If the facility is proposed to be located in a jurisdiction that has established setback requirements pursuant to KRS 278.704(3), a statement that the proposed site is in compliance with those established setback requirements.*

COMPLIANCE: The project is not proposed to be located on the site of a former coal processing plant, nor will it use any waste coal as a fuel source. No existing electricity generating facilities are located on the project site. Logan County has established setback requirements for this location, per the information provided in Section 4. The project will not include any exhaust stacks or wind turbines as part of the facility, so the 1,000-foot boundary requirement is not applicable.

However, KRS 278.704(3) states as follows:

If the merchant electric generating facility is proposed to be located in a county or a municipality with planning and zoning, then setback requirements from a property boundary, residential neighborhood, school, hospital, or nursing home facility may be established by the planning and zoning commission. Any setback established by a planning and zoning commission for a facility in an area over which it has jurisdiction shall:

- (a) Have primacy over the setback requirement in subsections (2) and (5) of this section; and
- (b) Not be subject to modification or waiver by the board through a request for deviation by the applicant, as provided in subsection (4) of this section.

The project is within the jurisdiction of the Logan County Fiscal Court which has established specific setback requirements. Attachment C includes the Logan County Ordinance No. 19-920-06, *An Ordinance Establishing Minimum Setback Requirements for Solar Farm Installations in Logan County* and the subsequent amendment to Ordinance No. 19-920-06. Accordingly, the setback requirements identified in KRS 278.704(2) and KRS 278.706(2)(e) do not apply to this project. The project will comply with those setback requirements of the local ordinance. As such, no motion for deviation is required.

6. Public Notice Report

REQUIREMENT: per KRS 278.706 (2)(f); *A complete report of the applicant's public involvement program activities undertaken prior to the filing of the application, including:*

- 1. The scheduling and conducting of a public meeting in the county or counties in which the proposed facility will be constructed at least ninety (90) days prior to the filing of an application, for the purpose of informing the public of the project being considered and receiving comment on it;*
- 2. Evidence that notice of the time, subject, and location of the meeting was published in the newspaper of general circulation in the county, and that individual notice was mailed to all owners of property adjoining the proposed project at least two (2) weeks prior to the meeting; and*
- 3. Any use of media coverage, direct mailing, fliers, newsletters, additional public meetings, establishment of a community advisory group, and any other efforts to obtain local involvement in the siting process.*

COMPLIANCE: Attachment D presents the notice sent on July 13, 2021, to project site and adjacent landowners to notify them of an upcoming public meeting to present details on the project. The notice was mailed to each landowner via Certified mail; also see Attachment B for the certified mail receipts and list of notice recipients. Attachment D also includes the public meeting notice published in the *News Democrat-Leader*, the newspaper of general circulation in Logan County, on July 13, 2021.

Details on the proposed solar facility have been presented to the public since early work began on the project, prior to Russellville Solar purchasing the project from another solar developer in late 2020 (Table 1). In October 2019, two newspaper articles appeared in *Bowling Green Daily News* that provided project information to the public. Following Russellville Solar ownership, two additional articles, published in March 2021 in *Kentucky Today* and *Times-Tribune*, featured the project. Silicon Ranch Corporation, the parent company of Russellville Solar, published two news releases in March 2021 on their website, *siliconranch.com*, that were similar in content to the March 2021 newspaper articles. On April 11, 2021, at 9 a.m., representatives of Russellville Solar and the Logan Economic Alliance for Development discussed the proposed solar facility with the local community on a broadcast of Logan County's WRUS Radio. In addition to presenting details on the project, Russellville Solar held a call-in session during the radio broadcast that provided an opportunity for the public to comment and ask questions on the project. Representatives of Russellville Solar have also met with county officials on several occasions to discuss the county ordinance on solar facilities and plan for the vegetative and fence screening that will shield views of the facility from the surrounding areas, with close consideration of particular landowner concerns.

Table 1. Media sources with project information.

Date	Title	Entity	Citation
October 11, 2019	1,600-acre solar farm planned for Logan County	<i>Bowling Green Daily News</i>	https://www.bgdailynews.com/news/1-600-acre-solar-farm-planned-for-logan-county/article_4c9e88be-2d92-51ef-98d8-4a6a678da904.html
October 17, 2019	Solar farm holds great potential for Logan County	<i>Bowling Green Daily News</i>	https://www.bgdailynews.com/opinion/our_opinion/solar-farm-holds-great-potential-for-logan-county/article_1abeec1-3d51-5c55-b303-988b4da64b4b.html
March 25, 2021	TVA to build state's largest solar site in south central Kentucky	<i>Kentucky Today</i>	https://www.kentuckytoday.com/stories/tva-to-build-states-largest-solar-site-in-south-central-kentucky,31315
March 25, 2021	Facebook and General Motors Use Sun to Power Facilities	Silicon Ranch Corporation	https://www.siliconranch.com/facebook-and-general-motors-use-the-sun-to-power-facilities
March 26, 2021	TVA to build state's largest solar site in south central Kentucky	<i>Times-Tribune</i>	https://www.thetimestribune.com/news/tva-to-build-states-largest-solar-site-in-south-central-kentucky/article_13be8e0c-8daf-11eb-a6c9-e301728599a4.html
March 29, 2021	Facebook and General Motors sign up for Kentucky solar	Russellville Solar	https://logancountykysolar.com/facebook-and-general-motors-sign-up-for-kentucky-solar/
Ongoing	Logan County Solar Project	Russellville Solar	https://logancountykysolar.com/

Russellville Solar LLC presented details on the Project during two public meetings held at the Logan County Cooperative Extension Office in Russellville. The first of these meetings was held between 6:00 PM and 8:00 PM on July 29, 2021, and the second meeting was held between 5:45 PM and 8:00 PM on December 14, 2021. The July meeting was advertised on July 13, 2021, in the *News Democrat-Leader*, a local newspaper published in Russellville, Kentucky, and letters were mailed to adjacent landowners to notify them of the upcoming meeting. During the July public meeting, Russellville Solar announced a project website, *logancountykysolar.com*, where people can access frequently asked questions and answers and generally stay updated on the project, both by accessing information on the website or by signing up for project updates. The attendees were also encouraged to reach out to Russellville Solar with comments and concerns as project planning proceeds. Specific contact details were provided to the attendees. During both meetings, a presentation on the project was followed by a question-and-answer session and time for informal conversations, during which the contractors conducting the NEPA environmental review and assessing property value impacts, as well as the Russellville Solar project developer and the Regenerative Energy manager, who will manage dual use of the solar facility as a commercial sheep operation, were available for questions and group or one-on-one discussions.

The December meeting, held at the Logan County Extension Office was advertised via invitations to surrounding landowners, which included a larger distribution area than the July meeting mailings. The Project invited project landowners, neighboring landowners, residents within one mile of the project, as well as various local officials, including Judge-Executive of Logan County Logan Chick and County Magistrates. The dinner was catered by Roy's BBQ and was well attended by over 27 neighbors and community members. Attendees were shown a site

plan and presentation on the economic, environmental, and visual impacts of the project. During the meeting, Russellville Solar representatives and contractors presented details on the project, including (1) the project site acreage, (2) the anticipated disturbance footprint, electrical output, and key components of the proposed facility, (3) that a TVA-led National Environmental Policy Act (NEPA) environmental review of the project was underway, and (4) the economic benefits of the project to the local community. Maps showing the project site location and the preliminary design, were on display for the public to view. 7 visual renderings were also created and displayed on large posters portraying what the project would look like from multiple key observation points. Experts who were present and attended to answer questions included:

- HDR to discuss the environmental and cultural surveys being completed for the Project, as well as the visual renderings;
- Nick Kirkland from Kirkland Appraisals to discuss utility scale solar and neighboring property values;
- Michael Baute, Silicon Ranch's Director of Regenerative Energy to discuss the regenerative land management practices planned to keep the land in agricultural production; and
- Members of Silicon Ranch Project Development and Community Development team to discuss economic benefits to the community and plans for continued partnership.

See Attachment D for the materials related to these meetings.

The environmental review underway with TVA, pursuant to NEPA, will provide another official opportunity for public comment on the project in 2022. TVA will announce the release of the environmental assessment (EA) presenting the results of the NEPA environmental review on their website and in one or more local news sources. The release of the draft EA will initiate a 30-day public comment period. Substantive comments will be addressed in the final EA, the availability of which will be announced by TVA. The upcoming EA public comment period was announced during both public meetings.

7. Efforts to locate near Existing Electric Generation

REQUIREMENT: per KRS 278.706 (2)(g); *A summary of the efforts made by the applicant to locate the proposed facility on a site where existing electric generating facilities are located.*

COMPLIANCE: It is rare for utility-scale solar projects to be co-located with existing electricity generating infrastructure, such as a coal or natural gas fired power plant. As a result of Applicant's efforts, this project is located on land adjacent to an existing TVA transmission line (TL).

The project proposes connecting to TVA's adjacent existing Springfield-Logan Aluminum 161-kilovolt TL, which extends north-northwest to south-southeast through the northeast corner of the project site. The proposed solar facility would interconnect to this TL and carry the power generated by the facility. Russellville Solar would construct an onsite substation and TVA would construct a switching station in the northeastern portion of the project site that would connect the solar facility to the existing TVA TL via a short TL. A battery energy storage system would be built adjacent to the substation. An operations and maintenance building would be constructed along Joe Montgomery Road in the eastern portion of the project site. Information on TVA's studies of the interconnection cost and infrastructure are included in the System Impact Study, Attachment F.

Efforts were made to site the project where there is existing electricity transmission infrastructure. The proposed interconnection is to on-site existing infrastructure owned by TVA to be used for the sale and distribution of energy created by the project.

8. Proof of Service to County and Municipality Officials

REQUIREMENT: per KRS 278.706 (2)(h); *Proof of service of a copy of the application upon the chief executive officer of each county and municipal corporation in which the proposed facility is to be located, and upon the chief officer of each public agency charged with the duty of planning land use in the jurisdiction in which the facility is proposed to be located.*

COMPLIANCE: As indicated in the Certificate of Service, a copy of the Siting Board Application for Russellville Solar was electronically transmitted to the Judge-Executive of Logan County, Logan B. Chick, on the date of the electronic filing of this application. Additionally, a paper copy was mailed to him.

9. Effect on Kentucky Electricity Generation System

REQUIREMENT: per KRS 278.706 (2)(i); *An analysis of the proposed facility's projected effect on the electricity transmission system in Kentucky.*

COMPLIANCE: The project is proposed to interconnect on Tennessee Valley Authority's (TVA) electric system in Kentucky. TVA's service area covers Tennessee and portions of Kentucky, Alabama, Mississippi, Georgia, North Carolina and Virginia. TVA manages the interconnection of the project and is the transmission owner of the proposed point of interconnection, the Springfield-Logan Aluminum 161-kV line.

The interconnection process for TVA involves three major studies: the Feasibility Study, System Impact Study, and Facilities Study.

The project Feasibility Study was issued on August 12, 2019 and can be found in Attachment E. A Feasibility Study was also issued for the proposed battery storage component on November 8, 2021 and can be found in Attachment E.

The System Impact Study identifies any adverse system impacts on the TVA transmission system, including local power companies (LPCs) and neighboring transmission systems. No potentially affected systems were identified resulting from this proposed interconnection. The System Impact Study Report was issued on September 14, 2021 and can be found in Attachment F.

The final Facilities Study is currently in progress and expected to be issued by April 2022.

10. Effect on Local and Regional Economies

REQUIREMENT: per KRS 278.706 (2)(j); *An analysis of the proposed facility's economic impact on the affected region and the state.*

COMPLIANCE: Attachment G includes a full report on the impact of the project on local and regional economics. On page 1 of the report, it states:

“There are two primary impacts expected from the project. First, there will be a one-time spike in construction and linked jobs as the site is built out over approximately one year, with a commensurate increase in County occupational tax receipts. Using estimates of the construction payroll, I estimate that there will be a total of 529 new jobs in the County in year one, with new payroll of \$25.1 million. That payroll would yield \$189,000 in one-time occupational tax receipts for Logan County. Second, there will be three to four decades of new property-related tax payments to state and local jurisdictions in Logan County due to the increased value of real estate, machinery and tangible property installed at the site.”

11. Record of Environmental Violations

REQUIREMENT: per KRS 278.706 (2)(k); *A detailed listing of all violations by it, or any person with an ownership interest, of federal or state environmental laws, rules, or administrative regulations, whether judicial or administrative, where violations have resulted in criminal convictions or civil or administrative fines exceeding five thousand dollars (\$5,000). The status of any pending action, whether judicial or administrative, shall also be submitted.*

COMPLIANCE: Neither Russellville Solar LLC, Silicon Ranch Corporation, nor any entity with ownership interest in the project, has violated any state or federal environmental laws or regulations. There are no pending actions against Russellville Solar LLC, nor any entity with ownership interest in the project.

12. Site Assessment Report

REQUIREMENT: per KRS 278.706 (2)(l); *A site assessment report as specified in KRS 278.708. The applicant may submit and the board may accept documentation of compliance with the National Environmental Policy Act (NEPA) rather than a site assessment report.*

COMPLIANCE: The Site Assessment report is being contemporaneously filed herewith; please see the separate document titled "Russellville Solar: Site Assessment Report" and labeled as Attachment H.

Attachment H

The Site Assessment Report is
located in Volume II of the
Application