Andy Beshear
Governor

Rebecca W. Goodman
Secretary
Energy and Environment Cabinet

Commonwealth of Kentucky
Kentucky State Board on Electric Generation and Transmission Siting
211 Sower Blvd.
P.O. Box 615
Frankfort, Kentucky 40602-0615
Telephone: (502) 564-3940

Kent A. Chandler
Chairman

August 16, 2021

PARTIES OF RECORD

Re: Case No. 2020-00226

Notice is given to all parties that the attached document has been filed into the record of this proceeding.

If you have any comments you would like to make regarding the contents of the document, please do so within five days of receipt of this letter. If you have any questions, please contact Jesse Fries, Staff Attorney III, at (502) 564-0801 or jesse.fries@ky.gov.

Sincerely,

Linda C. Bridwell

Linda C. Bridwell, P.E.
Executive Director
On Behalf of the Siting Board

Attachment

Review and Evaluation of the Mt Olive Creek Solar, LLC Site Assessment Report

Kentucky Public Service Commission and Kentucky State Board on Electrical Generation and Transmission Siting

August 13, 2021

Harvey Economics ♦ 469 South Cherry Street, Suite 100 ♦ Denver, Colorado 80246
tel. 720.889.2755♦ fax 720.889.2752 ♦ www.harveyeconomics.com ♦ he@harveyeconomics.com

August 13, 2021

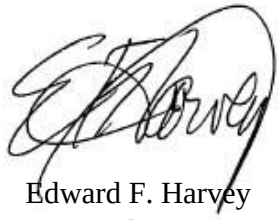
Mr. Jesse Fries
Staff Attorney
Kentucky Public Service Commission
211 Sower Blvd.
Frankfort, KY 40601

Re: Harvey Economics' Review of Mt Olive Creek Solar, LLC's Site Assessment Report for Solar Facilities in Russell County, Kentucky

Dear Mr. Fries,

Harvey Economics is pleased to provide you with our final report, *Review and Evaluation of the Mt Olive Creek Solar, LLC Site Assessment Report.*

Yours truly,



Edward F. Harvey
Principal

Report

August 13, 2021

Review and Evaluation of the Mt Olive Creek Solar, LLC Site Assessment Report

Prepared for

Kentucky Public Service Commission and
Kentucky State Board on Electrical Generation and Transmission Siting
211 Sower Boulevard
Frankfort, Kentucky 40602

Prepared by

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SECTION 1
Introduction

This document provides a review of the Site Assessment Report (SAR) for the proposed Mt Olive Creek Solar Facility (Project) submitted to the Kentucky State Board on Electric Generation and Transmission Siting (Siting Board). Mt Olive Creek Solar, LLC submitted the SAR to the Siting Board on May 7, 2021. Siting Board staff retained Harvey Economics (HE) to perform a review of the SAR. Mt Olive Creek Solar, LLC (Mt Olive Creek or Applicant) submitted the SAR as part of its application for a construction certificate to construct a merchant electric generating facility under KRS 278.706 and 807 KAR 5:110. Requirements specific to the SAR are defined under KRS 278.708, detailed below.

Statutes Applicable to the SAR Review

KRS 278.706 outlines the requirements for an application to receive a certificate to construct a merchant electric generating facility. Section (2)(l) of that statute requires the Applicant to prepare a SAR, as specified under KRS 278.708. The Mt Olive Creek SAR is the main focus of HE's review. However, the Siting Board also requested that HE review the economic impact report prepared by the Applicant. The economic impact report is a requirement of the application under KRS 278.706(2)(j), separate from the SAR.

KRS 278.708(3) states the following:

A completed site assessment report shall include:

(a) A description of the proposed facility that shall include a proposed site development plan that describes:

1. Surrounding land uses for residential, commercial, agricultural, and recreational purposes;
2. The legal boundaries of the proposed site;
3. Proposed access control to the site;
4. The location of facility buildings, transmission lines, and other structures;
5. Location and use of access ways, internal roads, and railways;
6. Existing or proposed utilities to service facility;
7. Compliance with applicable setback requirements as provided under KRS 278.704(2), (3), (4), or (5); and
8. Evaluation of the noise levels expected to be produced by the facility.

(b) An evaluation of the compatibility of the facility with scenic surroundings;

(c) The potential changes in property values and land use resulting from the siting, construction, and operation of the proposed facility for property owners adjacent to the facility;

(d) Evaluation of anticipated peak and average noise levels associated with the facility's construction and operation at the property boundary; and

(e) The impact of the facility's operation on road and rail traffic to and within the facility, including anticipated levels of fugitive dust created by the traffic and any anticipated degradation of roads and lands in the vicinity of the facility.

KRS 278.708(4) states that "the site assessment report shall also suggest any mitigating measures to be implemented by the applicant to minimize or avoid adverse effects identified in the site assessment report."

KRS 278.706(2)(j) states that a completed application shall include "an analysis of the proposed facility's economic impact on the affected region and the state."

KRS 278.706(2)(d) addresses specific setback requirements, as related to distances from adjacent property owners of various types (i.e., residential neighborhoods, schools, hospitals, nursing homes).

SAR Review Process and Methodology

HE completed the following tasks as part of the review of the Mt Olive Creek SAR and certain other components of the Mt Olive Creek Application:

- Review of the contents and information provided in the site assessment report, application and other documents provided by the Applicant;[1]
- Brief review of secondary data sources to obtain background information and geographic setting for the Mt Olive Creek Project;
- Limited review of relevant evaluation criteria to identify potential issues and assessment approaches to serve as benchmarks for the adequacy review;
- Identification of additional information we deemed useful for a thorough review, and submittal of questions to the Applicant via Kentucky Public Service Commission Assistant General Counsel;
- Review of additional information supplied by the Applicant in response to the HE questions submitted to the Applicant, and discussion of responses with the Siting Board staff;

[1] Mt Olive Creek Solar, LLC has submitted a motion for deviation from the setback requirements. That document includes a 15-page letter from Mt Olive Creek Solar, LLC counsel, along with several attached Exhibits.

- Completion of interviews and data collection with outside sources as identified in this document;
- Review of additional information supplied by the Applicant in response to a second set of questions submitted to the Applicant by HE, and discussion of responses with the Siting Board staff;
- Participation in a site visit, including a tour of the Project site with the Applicant and in-person meetings with local officials;
- Completion of analyses and evaluation of the impacts upon each of the previous identified resources; and
- Preparation of this report, which provides HE's conclusions as to potential Project impacts and mitigation recommendations.

Components of the Mt Olive Creek Solar Facility SAR

Mt Olive Creek Solar, LLC's Application to the Siting Board consists of multiple documents:

- Volume 1: Application Documents addresses a variety of topics and includes several attachments:
    - Descriptions of the proposed site, including maps of the project area;
    - Proof of notice of application;
    - Public involvement documents;
    - Certificates of compliance with local regulations;
    - Generation interconnection feasibility and system impact study reports;
    - Economic impact report; and
    - Certificate of authority.
- Volume 2: The Site Assessment Report includes a summary addressing each requirement of KRS 278.708 and the following attachments:
    - Preliminary Project Layout;
    - Property Value Impact Report;
    - Map of Nearest Neighbors;
    - Surrounding Area Images;
    - Boundary Survey and Legal Descriptions;

- Noise and Traffic Study; and
- Phase 1 Environmental Site Assessment.

In addition to the application, Mt Olive Creek Solar, LLC also provided the Siting Board with a document titled Applicant's Motion for Deviation from Setback Requirements, which HE reviewed and considered as part of the evaluation of the proposed site development plan.

Additional Information Provided by the Applicant

Once HE reviewed the contents of the SAR, HE and the Siting Board staff independently developed an initial list of detailed questions, either requesting additional information or asking for clarification about items in the SAR. The Siting Board staff submitted the first request for information, including questions from HE, on June 21, 2021; Mt Olive Creek provided written responses on July 7, 2021, and supplemental responses on July 11, 2021.

After HE and the Siting Board staff reviewed Mt Olive Creek's responses to the first request for information, HE and the Siting Board staff independently developed a second list of detailed questions. The Siting Board staff submitted the second request for information, including questions from HE, on July 20, 2021. Mt Olive Creek provided written responses to the second request for information on August 3, 2021.

HE and certain representatives from the Siting Board also met with the Applicant for an in-person meeting on July 27, 2021, to conduct a site visit and discuss remaining issues.

Report Format

This report is intended to support the Siting Board in its decision-making process pertaining to a construction certificate for Mt Olive Creek Solar, LLC. The report is structured to respond to the requirements for a SAR as outlined in KRS 278.708, the economic analysis described in KRS 278.706(j) and to our contract:

- This section of the report, Section 1, introduces the purpose and process of the SAR review and HE's work;
- Section 2 offers a summary and conclusions as to the results of HE's SAR evaluation;
- Section 3 describes the Mt Olive Creek Project and proposed site development plan;
- Section 4 provides a brief profile of Russell County's economic and demographic characteristics as context for the Project setting;
- Section 5 offers detailed findings and conclusions for each resource area; and
- Section 6 presents recommendations concerning mitigation measures and future Siting Board actions.

Caveats and Limitations

Review limited to resource areas/issues enumerated in the statutes. HE's evaluation of the Mt Olive Creek Project is contractually limited to a review of the SAR and associated materials, as well as the economic impact analysis. Statutes dictate the issues to be covered in the SAR; HE focused on those specific topic areas that are addressed in this report. The Siting Board might have additional interests or concerns related to the construction, siting, or operation of the Project; those may be addressed in other documents or by other parties.

Level of review detail determined by expert judgement. KRS 278.708 identifies the required components of an SAR; however, the level of scrutiny and detail of the evaluation depends upon expert judgement as to what information is relevant and what level of detail is appropriate. This level of review generally relates to the assessment methodologies, geographic extent of impacts and the degree of detailed information about the Project as requested by the consultant in follow-up inquiries. Given our experience related to project impact assessments and evaluation of impacts on various socioeconomic and natural resource components, HE believes that we have performed a thorough and comprehensive review of the Mt Olive Creek SAR, which will meet the needs of the Siting Board.

Assumption of accurate Applicant data. HE reviewed all the data and information provided by the Applicant as part of the SAR and associated documents, including responses to two sets of inquiries and follow-up discussions. Although we evaluated Applicant data for consistency and clarity as part of our review, we did not perform any type of audit to confirm the accuracy of the provided information. We assume that the Applicant has provided an honest representation of the Project, based on the best data available at the time.

In instances where the Applicant was unsure about certain aspects of the Project, such as exactly where the solar panels would be placed, HE assumed a "worst case" for the purposes of the impact analysis. Should the actual Project development deviate in a manner that materially changes the Project magnitude or location of impacts, or affected parties, the Applicant can be required to notify the Siting Board for it to evaluate such a deviation and take appropriate action as deemed necessary. See mitigation recommendations in Section 6.

SECTION 2
Summary and Conclusions

Mt Olive Creek Solar, LLC (Mt Olive Creek or Applicant) proposes to construct a 60-megawatt alternating current photovoltaic electricity generation facility (Project) in Russell County, KY, generally located about five miles north of the City of Russell Springs. On May 7, 2021, Mt Olive Creek applied to the Kentucky State Board on Electric Generation and Transmission Siting (Siting Board) for a construction certificate to construct a merchant electric generation facility. Mt Olive Creek's application responded to the statutory requirements set forth by the State of Kentucky in KRS 278.706 and 278.708.

The Siting Board retained Harvey Economics (HE) to review and evaluate the Site Assessment Report (SAR) included in the Mt Olive Creek application, as well as other supporting information provided by the Applicant. In addition to the topic areas included in the SAR, HE also addressed the Applicant's economic impact analysis and the topic of decommissioning. The summary results and conclusions of HE's review and evaluation are provided below. Recommended mitigation measures are offered in Section 6 of this report.

Facility Description and Site Development Plan

The Project site encompasses a total of about 475 acres of rural agricultural land with solar components covering a smaller area within that acreage. Solar infrastructure will include between 130,000 and 150,000 solar panels, inverters, racking system, substation, and other associated components. The panels and racking will be no more than 15 feet high at the highest point. Barbed wire fencing will enclose the facility. The power generated by the Project will be linked to the electric transmission grid via the existing Sewellton Jct – Webbs Crossroads 69 kilovolt (kV) transmission line.

- ***Surrounding land uses*** – The area around the Project site can be generally described as rural agricultural, with rolling hills and extensive existing vegetation (trees, shrubs and grasses). Acreage surrounding the Project site is largely residential agriculture, with additional smaller sections of purely agricultural land or residential properties. Surrounding properties include 119 residential structures, three commercial facilities, three religious facilities and 188 barns, warehouses, or similar ancillary structures.[2] Commercial activity in the area includes a local convenience store, a livestock auction facility, an auto parts and salvage yard, and a farm gate manufacturing facility.

- ***Proximity to homes and other structures*** – A total of 76 residential structures, three commercial structures, two churches and 122 "other" structures (including barns, warehouses, and similar ancillary structures) would be located within 1,200 feet of the Project boundary fence. Sixteen homes would be located within 300 feet of the

[2] Within 2,400 feet of the Project fence line.

boundary fence and ten homes would be located within 300 feet of the nearest solar panels.

- ***Locations of structures*** – Solar panels, inverters and the racking system will be located throughout the property. The sole transformer will be located within the substation, which will be located in the southwestern portion of the Project site. The existing Sewellton Jct – Webbs Crossroads 69 kV transmission line generally runs in an east-west direction and is also located within the southern portion of the Project site. If a permanent building is located on-site, it will likely be a trailer or container to store operations and maintenance equipment and parts, with a location yet to be determined. Multiple staging areas and parking areas will be located throughout the Project site.

- ***Locations of access ways*** – Nine potential access points/access roads will allow access to different areas of the property during construction. These access points include four construction entrances along Sano Road (generally through the center of the Project site); one on Miller Short Road on the northern side of the site; three on Millerfield Road (KY 76); one on T Wethington Road, east of KY 76. One of the two entrances on the northern side of Sano Road will be the primary access point and the most heavily trafficked. During operations, access to the Project site will likely be limited to three entrances along Sano Road and one entrance on Millerfield Road (KY 76).

- ***Access control*** – Security fencing (six-foot high chain link fencing topped with barbed wire) will enclose the facility along the Project boundary line. The entire site will be fenced prior to the start of construction, with additional fencing placed specifically around the substation and interconnection equipment area. All entrances to the site will be gated; access gates will be locked at all times when workers are not active on site. Security guards may be employed during the construction phase and the site will be monitored by camera during operations.

- ***Utility service*** – The Sewellton Jct – Webbs Crossroads 69 kV transmission line will serve the facility and carry electricity generated by the Project. No external utility services are anticipated for Project operations. However, if electricity service is required during construction or operation of the Project, it will be contracted with the local utility, South Kentucky Rural Electric Cooperative Corporation. There will not be any water or sewer servicing the Project site. Portable chemical toilets will be provided for construction workers during Project development.

- ***Project life***—The Applicant anticipates a 40-year Project life.

Project construction is expected to last approximately 12 months. An estimated average of 150 workers will be on-site throughout the construction period, with a peak of about 200 workers on-site over the course of about four months. The Project construction schedule and description of construction activities is provided in Section 3.

Setback requirements and requested deviation. The Applicant has entered a motion for a deviation from these requirements. HE reviewed this motion and believes that the Project meets

the specific statutes of a setback deviation. The Siting Board must determine if these measures are sufficient.

Conclusion. HE believes that the Applicant has generally complied with the legislative requirements for describing the facility and a site development plan, as required by KRS 278.708.

Project Setting

Russell County had a 2019 population of about 17,900 people. Population levels have been relatively stable for many years and the County is projected to grow by a very small amount in the future. The City of Russell Springs, about five miles south of the Project site, has an estimated 2,600 residents. The area around the Project site can be generally described as rural and agricultural. Lake Cumberland, a popular tourist and recreational destination, is located about 10-15 miles south of the Project site. Manufacturing is the largest employment sector in Russell County, although other sectors are supported by local tourism activity. Residents' income levels are low, and they experience higher than average rates of poverty than other counties in Kentucky or the U.S.

Compatibility with Scenic Surroundings

The area surrounding the Project is rural and agricultural, with residential homes sprinkled throughout, generally on large parcels of land. Rolling hills and existing vegetation (trees, shrubs and grasses) will help mitigate against any negative visual impacts to residents and commuters associated with Project infrastructure or activities.

Scenic compatibility focuses largely on the solar panels, which, at a maximum height of about 15 feet, would be the main source of visual impact. Solar panels would be visible from certain roadways, including portions of Millerfield Road (KY 76), and from some adjacent properties that do not have much existing vegetation. About 30 residential structures would be located within 600 feet of the solar panels. A small family cemetery is situated within the Project boundaries near a construction access road; that cemetery would be in full view of temporary construction activities and, in the longer term, would have a clear view of many solar panels. The proposed Project substation is located in a remote area of the Project and is surrounded by extensive existing vegetation. The substation would be at least 1,500 feet from the nearest residence; scenic impacts are not a concern for that facility.

The Applicant has proposed vegetative buffers in several areas along the Project boundary line, based on visual inspection of existing vegetation, proximity to Project infrastructure, and elevation. Vegetative buffers will consist of rows of evergreen shrubs with a mature height of approximately 15 feet. Given the existing vegetation in the area and the proposed vegetative buffers, it appears that the Project will be well shielded from view by most nearby homes and drivers on local roads. Several mitigation measures are recommended to ensure the minimization of potential visual impacts, detailed in Section 6.

The Applicant has committed to using anti-glare solar panels and to operating the panels in such a way as to minimize or fully eliminate glare. Vegetative buffers would also work to

reduce glare if glare were to occur. The Applicant will consider additional mitigation measures if glare is identified as an issue during operations.

Potential Changes in Property Values and Land Use

The Applicant's consultant, Kirkland Appraisals, LLC (Kirkland), prepared an extensive data collection effort and analysis of property value impacts of solar facilities in diverse locations, concluding that the Project would have no effect on property values during construction or once in operation. To further assess potential property value impacts, HE: (1) reviewed existing literature related to solar facility impacts; (2) conducted an interview with the Russell County Property Valuation Administrator; and (3) prepared further analysis of the data from Kirkland.

One academic study indicated the potential for negative impacts to property values for homes in close proximity to solar facilities; most recent studies, however, indicated no impacts to property values related to solar facilities. The Russell County Property Valuation Administrator indicated that he does not expect to see any changes in property values (increases or decreases) due to the Project, although he did emphasize the importance of vegetative buffers. HE's further evaluation of the data provided by Kirkland also suggests that property values are unlikely to be affected by solar facilities, although some uncertainty exists. Mitigation of visual and other effects, with close property owner coordination, can minimize that uncertainty. This conclusion is predicated on the assumption that the mitigation strategies discussed in Section 6 are adopted by Mt Olive Creek and the Siting Board.

Anticipated Peak and Average Noise Levels

The Commonwealth of Kentucky does not have an applicable noise ordinance and neither does Russell County. As such, HE utilized the noise recommendations generated by the Environmental Protection Agency (EPA) and the World Health Organization (WHO) to gauge acceptable levels of sound. The topography and natural vegetation of the area will help mitigate noise emissions that may be caused by construction or operational components of the Project.

Construction will be annoying for numerous months for residents in the area. The pile driver can be heard from more than a mile away. The pile driving process, which is the loudest part of the construction process, is estimated to last between 4 and 16 weeks. The Project is expected to generate noise emissions greater than 55 dBA throughout construction, but the noise will be sporadic and typically cease at the end of the day. Since these construction activities are not sustained, no hearing loss or long-term annoyance to residents is expected.

The operational components will be loudest during the day, as this is when the inverters, BESS HVAC units and transformer will all be operating. At 300 feet, the sound level from the central inverter will be approximately 47.6 dBA. Ten residences and a church will experience this noise, which might be somewhat annoying. Noise emissions during operation should be below the WHO's recommended maximum noise level of 50 dBA.

Road and Rail Traffic, Fugitive Dust and Road Degradation

The major roads providing access to Mt. Olive will be US 127 and KY 76. These feed into numerous minor collector roads that will access the site. Road and traffic impacts during operation will be minimal, but clearly evident during construction.

Overall, traffic volumes during construction are likely to be distributed among the smaller roads in the immediate vicinity such that increases in traffic volumes will be modest. Traffic congestion resulting from construction activities will likely be noticeable along KY 1545 and Abrell Road. Additional congestion may occur if freight trucks travel along these roads and other roads surrounding the Project because they are narrow and not able to handle two-way traffic. Besides US 127 and KY 76, the roads in this area are narrow and vehicles sometimes need to pull half-off the road to pass oncoming traffic. Road degradation may occur during construction. The delivery of the main transformer is heavy enough to potentially cause degradation for every road utilized by the Project.

Fugitive dust should not be an issue given the Applicant's proposed best practices for construction and operational activities.

Economic Impact Analysis

Construction and operation of the Mt Olive Creek Solar Facility will provide limited economic benefits to the region and the Commonwealth. Construction employment and income opportunities will be temporary, but local hires will increase employment and incomes in an area that needs it. An estimated 150 full-time equivalents will be required to complete Project construction activities, generating labor income of about $7.5 million (M). The bulk of construction purchases will be made outside of Kentucky, limiting opportunities for local business activity or generation of additional sales tax.

Operational employment will be minimal (two permanent positions), and purchases of materials or supplies will be small on an annual basis. Economic benefits during operations will be confined mostly to payment-in-lieu-of-taxes (PILOT) payments, amounting to a total of $1.62M over the life of the Project. Annual PILOT payments will be made to multiple Russell County taxing authorities; however, those payments will likely amount to a small percentage of their total tax revenues. Socioeconomic impacts of the Mt Olive Creek Solar Facility represent a positive, albeit small, contribution to the region.

Decommissioning

The Applicant assumes a 40-year useful life for the Mt Olive Creek Solar Facility. Lease agreements with participating landowners include commitments regarding infrastructure removal and land restoration. Additionally, the Applicant has prepared a formal decommissioning plan, which commits to the removal of all Project components (including modules, racking system, inverters, transformers, concrete pads, all electrical equipment, roads, parking areas, fencing and other components). Site restoration will include site clean-up, re-grading, restoration of surface drainage, filling of trenches, tilling of compacted ground and topsoil spreading and reseeding. Decommissioning commitments apply to all properties

within the Project site, including both leased and purchased properties. The Applicant will provide a decommissioning security, equal to the estimated amount of the decommissioning cost less the facility salvage value, naming Russell County the secondary beneficiary.

Decommissioning the facility and returning the site to its original condition can be accomplished if all the components are removed. After reclamation, this would return the land to pre-Project productive uses and property values, and eliminate long term Project-related impacts, compared with simply shuttering the solar facility. This process will also add a modest, temporary positive economic stimulus to the region.

Public Outreach and Communication

The Applicant has made various efforts to discuss the Project with Russell County residents and officials, answer questions and gather input and feedback about specific concerns. Those efforts have included public meetings; individual meetings with landowners and others; and meetings with County officials, including the Judge Executive and the Fiscal Court. The Applicant has been present in Russell County working on public engagement activities since 2019. However, other than adjacent landowners and local governmental officials, it seems that there is a general unawareness of the Project on the part of other County residents.

Conclusions and Recommendations

Based on our findings related to the specific siting considerations in the statutes and as addressed in this report, HE recommends that the Siting Board approve Mt Olive Creek Solar, LLC's application for a certificate to construct a merchant electric generating facility. This finding assumes that the Project is developed as described in the SAR and the supplemental information, and the mitigation measures set forth in Section 6 of this report are adopted.

SECTION 3
Project Overview and Proposed Site Development Plan

Project Overview

Mt Olive Creek Solar, LLC describes the Mt Olive Creek Project as follows:

"The proposed Mt Olive Creek Solar Facility (the Project) will be a 60-megawatt (MW) alternating current photovoltaic electricity generation facility. The Project is to be located in Russell County, near the town of Russell Springs. The power generated by the Project will be sold on the open market through an existing transmission line that crosses the property.

The Project will be built on up to 475 acres which has historically been used as pasture and crop land. The equipment onsite will consist of crystalline solar panels, racking, inverters, transformers, a DC-coupled energy storage system, one substation transformer, and associated wiring and balance of system.

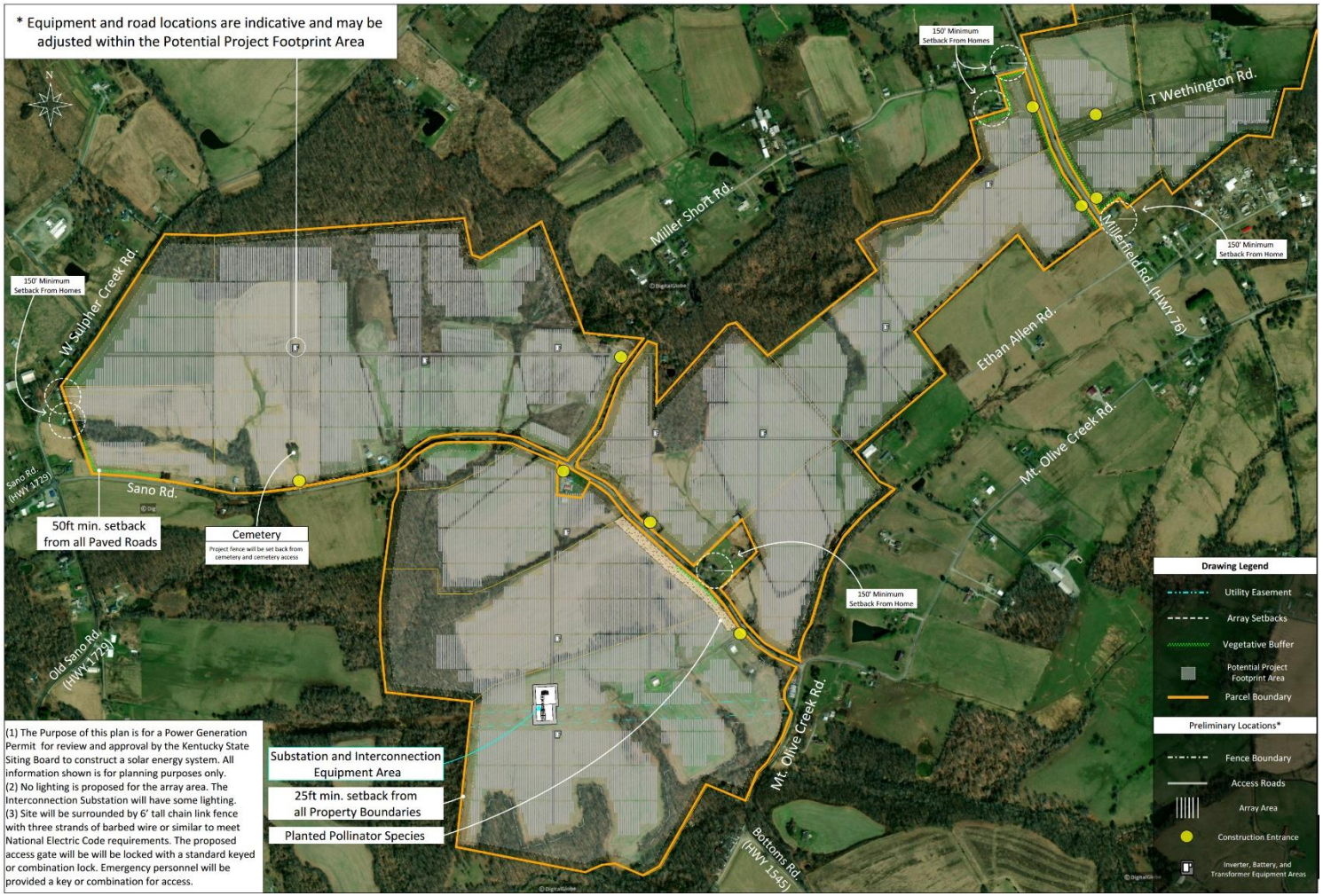
The racking system used to fix the solar panels to the ground has a small footprint that does not use concrete, and the panels are not considered impervious as rainwater can travel over and around the panels, making this a low impact development. The panels and racking are no more than 15 feet high at the highest point. The racks will be placed directly onto grass. Gravel will be placed on the access roads throughout the site and will not be placed under the solar panels. Mt Olive Creek will use single axis tracking racks which will rotate slowly to track the sun's path from East to West one time throughout each day.

A fence meeting the National Electric Safety Code requirements, typically a six-foot fence with three strings of barbed wire at the top, will enclose the facility. The Project will comply with the NESC and American National Standards Institute (ANSI) Z535 Safety Sign Standards for Electric Utility Power Plants and Substations to guide the placement of safety signage around the facility.

Applicant proposes sections of vegetative buffers to help screen the view of the facility from sections of the roads surrounding the Project that do not have existing vegetation to block the view of the Project. The vegetative buffer will consist of two staggered rows of evergreen shrubs that have a mature height of approximately 15 feet. The rows will be spaced approximately 15 feet apart, and the shrubs will be at least three feet in height at time of planting."

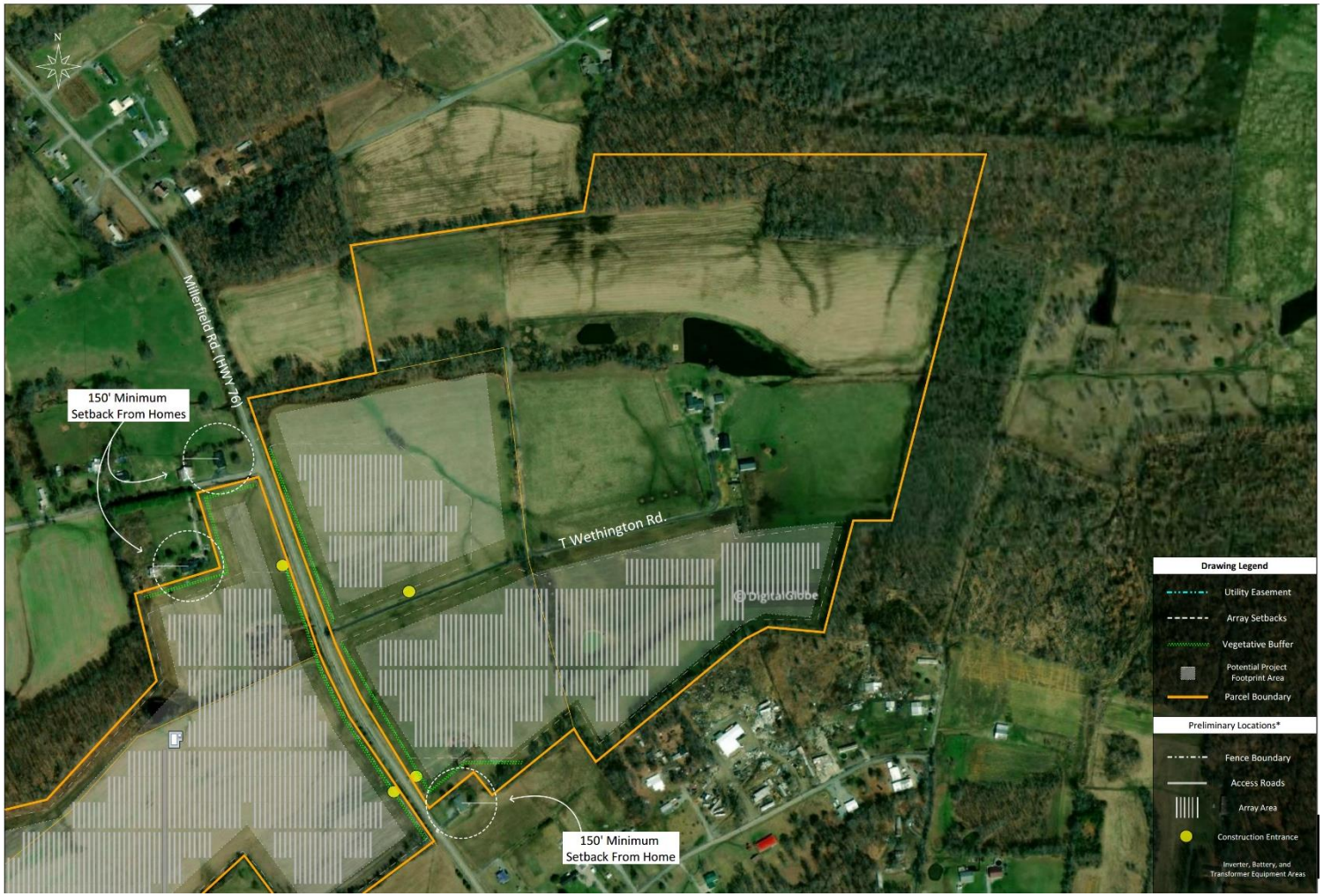
Exhibits 3-1 and 3-2, submitted as part of the supplemental application materials, show maps of the Project site within Russell County.

Exhibit 3-1.
Map of Proposed Project Site and Surrounding Area



Source: Mt Olive Creek Solar, LLC, July 2021.

Exhibit 3-2.
Map of T Wethington Road Area of Proposed Project Site



Source: Mt Olive Creek Solar, LLC, July 2021.

The Project site is located approximately 95 miles east of the City of Bowling Green and about 80 miles southeast of the City of Lexington. The Project site is located about five miles north of the City of Russell Springs.

Construction Activities

Construction of the Mt Olive Creek solar facility is expected to occur over a period of about 12 months.[3] Peak construction activity will begin approximately two months after mobilization and will last approximately four months.

The following construction tasks will overlap to some extent over the one-year construction period:

- Sitework (grading, staging / laydown area, substation area, surveying, etc.): 24 weeks;
- Roads (access roads and road maintenance): 23 weeks;
- Collection System (includes installation of racking system and modules): 22 weeks;
- Substation: 24 weeks;
- O&M Building: 19 weeks; and
- Restoration: 6 weeks.

Construction of the Project's substation (including transformer) will connect the Project to a newly built Eastern Kentucky Power Cooperative switchyard, which is connected to a high-voltage transmission system. That work requires highly skilled workers. Once construction is complete, commissioning activities, including performance testing, are anticipated to take place over about seven weeks.

On average, 150 construction workers are estimated to be on-site at any one time, depending on the specific tasks and activities occurring at that time. Installation of the panels will not be sequential; many different construction activities may take place in different parts of the Project site at the same time (i.e., grading in one area, pile driving posts in a separate area, fixing panels to posts in another area, etc.). The Applicant proposes construction activity to occur between the hours of 7 am and 9 pm, Sunday through Saturday, with time restrictions in place on Sundays in areas where places of worship are located nearby.[4]

Peak construction activity will most likely begin during the first quarter of the year-long construction period, when foundations, pile driving, solar panel installation, and wiring

[3] Construction of a switchyard pad for Eastern Kentucky Power Cooperative will occur in advance of construction of any Project components.

[4] For churches within 1,500 feet of the Project, the Applicant proposes that no construction activities take place starting one hour before worship activities and do not begin until one hour after worship activities have been concluded.

installation is concurrent. Peak construction activities will require approximately 200 workers to be on-site each day, over a period of about four months.

Life of the Project

The Mt Olive Creek Solar Facility is anticipated to operate for approximately 40 years. Project decommissioning (the process of closing the facility to retire it from service) is discussed in Section 5 of this report.

Proposed Site Development Plan

The following discussion addresses each of the SAR requirements for a proposed site development plan, as laid out in KRS 278.708(3)(a).

Surrounding land uses. Russell County in general, and the area around Russell Springs specifically, are rural residential areas, with low population density and an agricultural emphasis. Section 4 of this report provides a general overview of the County's demographic and economic characteristics.

As part of the SAR, the Applicant's consultant, Kirkland Appraisals, LLC (Kirkland), identifies the acreage surrounding the Project site as a mix of residential and agricultural uses. A total of 44 adjacent properties surround the proposed Project site. The Kirkland report shows that about half of the surrounding acreage is defined as agricultural/residential, and another 28 percent of the surrounding acreage is purely agricultural. About 24 percent of the surrounding area is defined as residential and less than one percent is defined as commercial. There is one commercial property (an auto parts and salvage yard) adjacent to the Project site, located on the south side of the northeast portion of the Project.

Two churches and one convenience store are located along or immediately south of Sano Road, on the west side of the Project site. Additionally, a small cemetery is located on the north side of Sano Road on the western end of the Project site.[5] Other non-residential land uses in the area include a livestock auction facility, an auto parts and salvage yard, and a farm gate manufacturing facility.

The Applicant also provided a table describing the distances between nearby residences or other structures and the Project fence line. That information is provided in Exhibit 3-3.

[5] The cemetery is located on property owned by a participating landowner. That landowner will be consulted regarding the cemetery prior to commencing construction.

Exhibit 3-3.
Distances between Nearby Structures and the Mt Olive Creek Project Fence Line

Distance from Property Fence (ft)	Residential Structures	Commercial Structures	Churches	Other Structures
0 - 300	16	1	1	21
301 - 600	18	2	0	32
601 - 900	13	0	1	41
901 - 1,200	29	0	0	28
1,201 - 1,500	11	0	0	22
1,501 - 1,800	8	0	0	8
1,801 - 2,100	7	0	1	14
2,100 - 2,400	17	0	0	22
Total Structures:	119	3	3	188

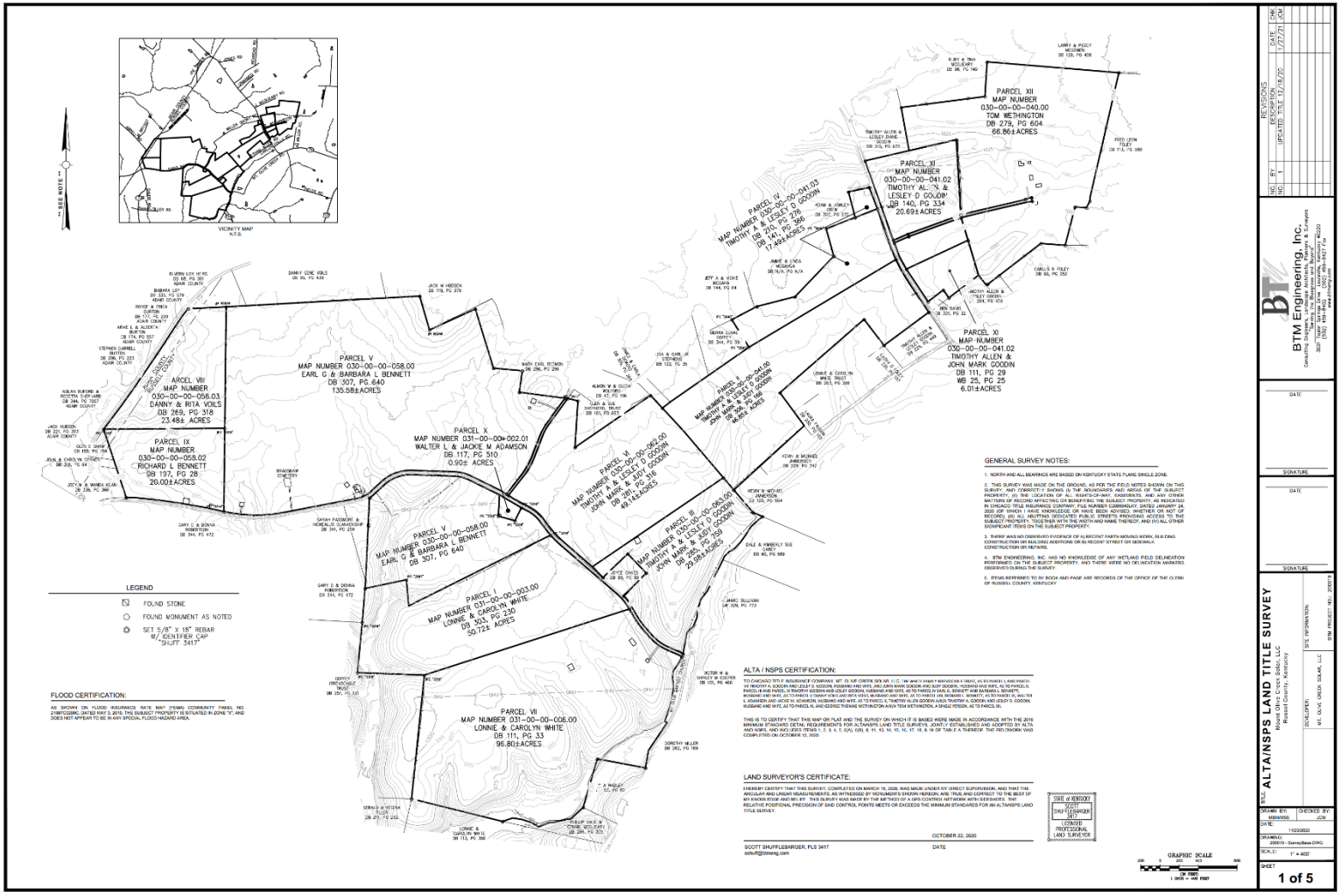
Notes: Other Structures includes barns, warehouses and similar ancillary structures.
Source: Mt Olive Creek Solar, LLC, August 2021.

There are 47 residential properties located within 900 feet of the Project fence line and 119 residential properties within 2,400 feet of the fence line.

Legal boundaries. The SAR included a boundary survey and legal descriptions of the 13 individual parcels included in the Project. Mt Olive Creek Solar, LLC has six lease agreements and two purchase-and-sale agreements with individuals and families associated with those 13 parcels. The boundary survey and legal descriptions correspond to the total acreage of those 13 participating properties, approximately 560 acres.[6] Exhibit 3-4 presents a map of the parcels included in the boundary survey and for which the Applicant has provided legal descriptions.

[6] Within the parcel boundaries, the potential Project footprint (the area where solar panels and other solar infrastructure would be located) comprises about 475 acres. However, due to existing vegetation, setbacks, buffers and spacing between rows of panels, less than 475 acres will actually be covered by panels.

Exhibit 3-4.
Map of Project Parcels (Participating Landowners) and the Mt Olive Creek Project Boundary



Source: Mt Olive Creek Solar, LLC, May 2021.

Access control. The Preliminary Project Layout map (Attachment A of the SAR), previously provided in this report as Exhibit 3-1, includes a total of nine potential entrance points allowing access to different areas of the property during construction. It is anticipated that one of the entrances located on the northern side of Sano Road will be used as the main construction entrance. During operations, Project access will likely be limited to one access point per Project section, to include three entrances along Sano Road and one entrance on Millerfield Road (KY 76).[7]

According to the Application, a fence meeting the National Electric Safety Code (NESC) requirement, typically a six-foot fence with three strings of barbed wire at the top, will enclose the facility along the Project boundary line. The entire site will be fenced prior to the start of construction, with additional fencing placed specifically around the substation and interconnection equipment area. All entrances to the site will be gated; access gates will be locked at all times when workers are not active on site, with a standard keyed or combination lock. Emergency personnel will be provided a key or combination for access.

A small cemetery is located on the north side of Sano Road in the western section of the Project site, near one of the construction entrances. The cemetery serves a local family, one of whom is a participating landowner. The existing driveway in that location will likely be used as a construction entrance, but the cemetery will not be gated or fenced in, allowing continued public access to the cemetery. Project fencing will be installed outside of the cemetery area.

The Project will comply with the NESC and American National Standards Institute (ANSI) Z535 Safety Sign Standards for Electric Utility Power Plants and Substations to guide the placement of safety signage around the facility.

Supplemental materials provided by the Applicant state that security guards are likely to be employed during the construction phase and that the site will be monitored by camera during operations. Mt Olive Creek staff will coordinate security with local law enforcement or other agencies, as necessary.

Location of buildings, transmission lines and other structures. Exhibit 3-1 illustrates the locations of the solar panels, inverters, energy storage systems and the substation within the Project boundary. Perimeter fencing will be located along the Project boundary line. The solar panels, inverters and energy storage systems will be located throughout the property. The substation transformer will be located in the southernmost portion of the Project site. The existing Sewellton Jct – Webbs Crossroads 69 kV transmission line runs in an East-West direction across the Project property and is also located within the southernmost portion of the Project site.

The Application states that "there is likely to be no permanent Project office building on site. If there is a permanent building on site, it will likely be a trailer or container to store operations and maintenance equipment and parts." Supplemental information provided by the Applicant

[7] The four Project "sections" are identified by the orange parcel boundary lines in Exhibit 3-1.

notes that the decision as to whether on-site or off-site storage is necessary will be made at a later date, closer to the Project becoming operational.

During the construction period, multiple staging areas and parking areas will be located on the Project site, potentially comprising up to 15 acres. Those areas will be used as construction assembly areas, vehicle parking and material storage during construction. The number, locations and acreages of those staging and parking areas will be determined by the chosen general contractor, depending on their space needs, access points and construction sequence. These areas are anticipated to be gravel, not paved. Most of that acreage will be restored to original conditions once construction is complete, but a limited number of smaller areas might remain for maintenance vehicle parking.

As noted by the Applicant, the following proposed setbacks have been applied to the Preliminary Project Layout as minimum distances from the potential Project footprint:

- 50 feet from adjacent roadways.
- 25 feet from non-participating adjoining parcels
- 150 feet from non-participating residences

The Applicant also proposes the following setbacks for central inverters, if used, and energy storage systems located within the Project site:

- 150 feet from property boundaries
- 300 feet from non-participating residences

Location and use of access ways, internal roads, and railways. As noted previously and as shown in Exhibit 3-1, nine entrances will allow access to different areas of the property during construction. Those include four construction entrances along Sano Road (generally through the center of the Project site); one on Miller Short Road on the northern side of the site; three on Millerfield Road (KY 76); one on T Wethington Road, east of KY 76. One of the two entrances on the northern side of Sano Road is anticipated be the primary access point and the most heavily trafficked. Other access points will be used less frequently for construction purposes.

As noted previously, access to the Project site will likely be limited to one access point per Project section during operations, including three entrances along Sano Road and one entrance on Millerfield Road (KY 76).

All internal roads will be gravel. Mt Olive Creek's intent is to minimize the number of internal roads, while being able to access all Project areas. The exact locations and lengths of internal roads will be defined during the Project design phase.

Railway use is not applicable to the Mt Olive Creek Project and no railroads are located in the vicinity of the Project site.

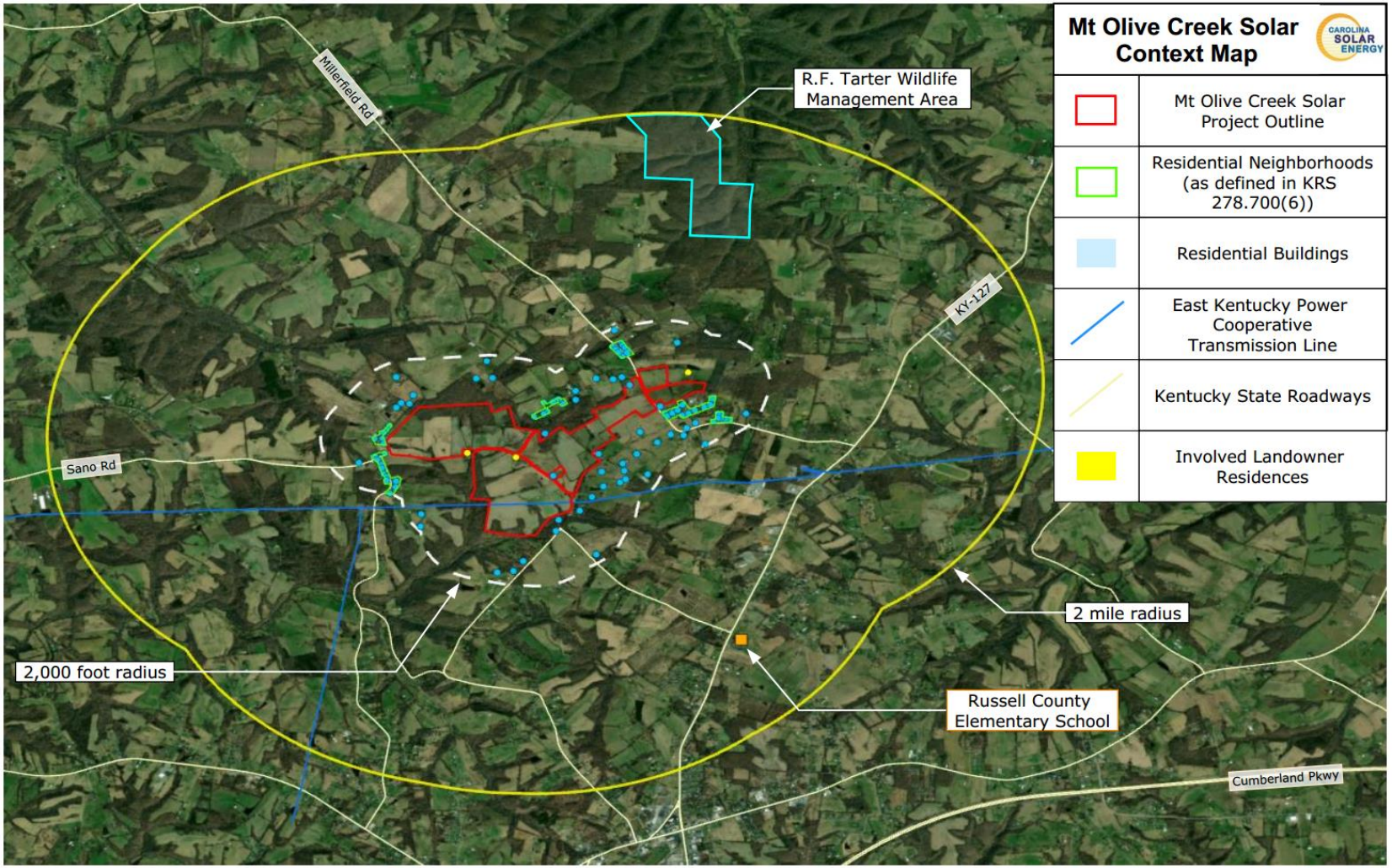
Existing or proposed utilities to service facility. The Sewellton Jct – Webbs Crossroads 69 kV transmission line will serve the facility and carry electricity generated by the Project. The Applicant does not anticipate the need to receive external utility services during typical plant operation. If electricity service is required during construction or operation of the Project, it will be contracted with the local utility, South Kentucky Rural Electric Cooperative Corporation. There will not be any water or sewer servicing the Project site; if a permanent trailer or container is located onsite, it will not require water or sewer service.

According to the Cumulative Environmental Assessment included in the Applicant's Motion for Deviation from Setback Requirements, portable chemical toilets will be provided for construction workers during Project development. Sewage waste will be pumped out by a licensed contractor and disposed of at the Russell County Regional Wastewater Treatment Plant or other appropriate facility. No additional or permanent restroom facilities are anticipated.

Compliance with applicable setback requirements. Applicable portions of the setback statute (KRS 278.706(2)(e)) require that Mt Olive Creek Project facilities be located at least 2,000 feet from any residential neighborhood, school, hospital or nursing home facility.[8] Because six residential neighborhoods are within 2,000 feet of Project facilities, the Applicant is seeking a deviation from the requirements. Exhibit 3-5 shows a map of residential buildings and neighborhoods within 2,000 feet of Project facilities.

[8] According to KRS 278.700(6), a residential neighborhood is a populated area of five or more acres containing at last one residential structure per acre.

Exhibit 3-5.
Map of the Project Boundary and Residential Neighborhoods within 2,000 Feet of Project Facilities



Source: Mt Olive Creek Solar, LLC, Mt Olive Response to Initial RFI, July 2021.

The Applicant has stated that meeting the 2,000-foot setback would require reducing the number of solar panels placed within the Project site, jeopardizing the economics of Project operations and the overall feasibility of the Project.

KRS 278.704(4) states that deviations from the setback requirements may be granted "on a finding that the proposed facility is designed to, and as located, would meet the goals of KRS 224.10-280, 278.010, 278.212, 278.214, 278.216, 278,218, and 278.700 to 278.716 at a distance closer than" those outlined in the setback statute.

The Applicant has submitted a document titled Applicant's Motion for Deviation from Setback Requirements (Motion for Deviation). That document addresses each of the statutes listed above, describing the Applicant's or facility's compliance with each, as follows:

- ***KRS 224.10-280: Cumulative Environmental Assessment (CEA):*** The Applicant has provided a CEA that addresses air pollutants, water pollutants, waste, and water withdrawal. That report provides a detailed discussion of each topic area and concludes the following:

    - ***Air pollutants –*** The solar project will generate transient air pollution emissions during construction and operation activities. Air quality impacts will primarily result from the staging and operation of construction vehicles, equipment, supplies, and worker personnel vehicles. Combustion of gasoline and diesel fuels by internal combustion engines will generate local emissions of PM, NOx, CO, volatile organic compounds (VOCs), and SO_2. Emissions associated with these vehicles and equipment are expected to result in minor impacts to air quality because the sizes, number of vehicles, and hours each piece of equipment will operate will be small. Emissions of SO_2 will be negligible because of the ultralow sulfur diesel fuel available on the market.

      Air quality impacts from construction activities will be temporary and will depend on both manmade factors (intensity of activity, control measures, etc.) and natural factors such as wind speed and direction, soil moisture, and other factors. However, even under unusually adverse conditions, these emissions will have, at most, a minor transient impact on off-site air quality and will be well below the applicable ambient air quality standard. The effects to air quality from construction–associated activities will be temporary and localized. Overall, the potential impacts to air quality from construction-related activities for the project will be minor.

      Tree clearing or vegetative debris is anticipated to be limited as much of the land planned to be used for the Project is open as it is used for pasture, hayfields, and cultivated crops. Tree clearing or vegetative debris will either be burned onsite in accordance with Kentucky's Open Burning regulations (401 KAR 63:005) and applicable local regulations, or will be chipped, ground, and composted on-site or managed offsite at a permitted facility.

During operation, the solar panels produce zero emissions. The solar facility will only generate air emissions from worker vehicles and equipment for maintenance activities, such as mowers to control growth of vegetation.

No air quality permit is required for construction or ancillary operation activities, such as mowing.

- ***Water pollutants*** **–** The Project is located within the Russell Creek Sub Watershed (Hydrologic Unit Codes 051100010401 and 051100010402) and drains to the Green River. Wetlands, ponds, and streams are present within the Project site. During construction activities, stormwater erosion and sedimentation may affect onsite surface water features. The Project will work with the existing landscape where feasible and minimize or eliminate grading work to the extent possible. The operations and maintenance of the solar facility will have little impact on surface water, and Best Management Practices (BMPs) will be used during any maintenance activities that have the potential to cause runoff of sediment and pollutants.

  No direct adverse impacts to groundwater are anticipated as a result of the Project. The photovoltaic (PV) panels will have a relatively minor effect on groundwater infiltration and surface water runoff because the panels will not include a runoff collection system. Rainwater will drain off the panels to the adjacent vegetated ground. Hazardous materials that could potentially contaminate groundwater will be stored on the Project Site during construction. However, the use of a spill prevention, control, and countermeasure plan will reduce leaks and spills and minimize the potential for adverse impacts to groundwater.

- ***Wastes*** **–** Waste will be generated during construction and operation of the solar facility and will be handled and disposed of in accordance with local, state, and federal regulations. To the extent feasible and practicable, construction waste will be recycled and material that cannot be recycled will be disposed of offsite at a permitted facility to be determined by the designated contractor(s). No waste will be disposed of on the Project Site. Construction activities will involve use of machinery fueled by petroleum products. Construction contractors will be responsible for preventing spills by implementing proper storage and handling procedures.

  Waste generation during operation will be minimal and will mainly result from the maintenance and/or replacement of worn or broken equipment and defective or broken electrical materials. All wastes will be managed by designated waste management company/companies and disposed of in accordance with applicable federal and state requirements to minimize health and safety effects.

  Portable chemical toilets will be provided for construction workers during Project development. Sewage will be pumped out by a licensed contractor and

the sewage waste will be disposed at the Russell County Regional Wastewater Treatment Plant or other appropriate facility.

- ***Water withdrawal –*** Water service in the Project area is provided through private wells that provide water to the barns and fields. Aquifers beneath the Project have sufficient permeability to conduct groundwater and to allow economically significant quantities of water to be produced by man-made water wells. The Project anticipates using these existing wells to provide water needed during construction and may either use these existing wells for the construction manager trailer or develop a new water well.

  Construction-related water use will support site preparation (including dust control) and grading activities. The expected water volume needed for construction activities is not expected to adversely affect local or regional groundwater resources.

  Operation of solar electricity generating facilities is not water-intensive. Precipitation in the region is adequate to remove dust and other debris from the PV panels while maintaining energy production; therefore, manual panel washing with water, or any other substance, is likely not part of regular solar project maintenance. Water will be used for ongoing vegetation management needs, including during screening vegetation installation; during prolonged times of drought; and for effective integrated vegetation management.

- ***KRS 278.010: Definitions applicable to associated statutes:*** The Motion for Deviation states that "Mt Olive Creek has satisfied the goal of providing the required information utilizing the definition of any applicable term defined in KRS 278.010."

- ***KRS 278.212: Filing of plans for electrical interconnection with merchant electric generation facility; costs of upgrading existing grid:*** The Motion for Deviation states that Mt Olive Creek will comply with all applicable conditions relating to electrical interconnections with utilities by following the PJM Interconnection process. Additionally, Mt Olive Creek will pay for costs which result from its interconnecting with the electricity transmission grid, as calculated by the local utility, PJM Interconnection, and any neighboring utilities with affected systems, through interconnection study agreements executed by the Project.

- ***KRS 278.214: Curtailment of service or generation and transmission cooperative:*** The Motion for Deviation states that Mt Olive Creek will abide by the requirements of this provision to the extent that these requirements are applicable.

- ***KRS 278.216: Site compatibility certificate; site assessment report; commission action on application:*** This statute applies to jurisdictional utilities; Mt Olive Creek is not such a defined utility. However, the Applicant has submitted a site assessment report in response to other statute requirements.

- ***KRS 278.218: Approval of commission for change in ownership or control of assets owned by utility:*** Mt Olive Creek is not a utility as defined by the applicable statute; therefore, the Motion for Deviation indicates that this statute does not apply. The Motion for Deviation does state that "to the extent Board approval may at some time be required for change of ownership or control of assets owned by Mt Olive Creek, Mt Olive Creek will abide by the applicable rules and regulations which govern its operation."

- ***KRS 278.700 – 278.716: Electric Generation and Transmission Siting:*** The Motion for Deviation states that "Mt Olive Creek has met the goals set forth in these provisions as evidenced by the Application in its entirety," noting the submittal of a "comprehensive Application with a detailed discussion of all of the criteria applicable to its proposed facility under KRS 278.700 – 278.716."

Evaluation of noise levels produced by facility. Noise levels related to facility construction and operations are discussed in detail in Section 5 of this report.

Results of SAR Review – Proposed Site Development Plan

Conclusions. Based on HE's review of the Mt Olive Creek SAR, the subsequent information provided by the Applicant in response to two rounds of inquiries, direct discussions with the Applicant, and other secondary area research, HE offers the following conclusions regarding the proposed site development plan:

- We believe that the Applicant has generally complied with the legislative requirements for describing the facility and a site development plan, as required by KRS 278.708.

- Security and access control measures appear to be adequate, given the type of facility and its location in a rural area.

- The Mt Olive Creek Project does not meet the existing setback requirements, so the Applicant has submitted a motion for a deviation from those requirements. HE believes that the Project, as proposed, does meet the specific statutes noted for consideration in a setback deviation, assuming the mitigation HE proposes is adopted. The Siting Board will need to judge the quality of the Applicant responses in the setback deviation request.

Need for mitigation. Mitigation measures described in the SAR, or recommended by HE, which are related to the description of the facility and the proposed site development plan include:

1. A final site layout plan should be submitted to the Siting Board upon completion of the final site design. Deviations from the preliminary site layout plan, which formed the basis for HE's review, should be clearly indicated on the revised graphic. Those changes would include, but are not limited to, location of solar panels, inverters, transformer, the warehouse, substation, operations and maintenance building, access points or other Project facilities or infrastructure.

2. Any change in Project boundaries from the information which formed this evaluation should be submitted to the Siting Board for review.

3. The Siting Board will determine if any deviation in the boundaries or site development plan is likely to create a materially different pattern or magnitude of impacts. If not, no further action is required, but if yes, the Applicant will support the Siting Board's effort to revise its assessment of impacts and mitigation requirements.

4. A final Project-specific construction schedule, including revised estimates of on-site workers and commuter vehicle traffic, should be submitted to the Siting Board. Deviations from the preliminary construction schedule should be clearly indicated.

5. The Siting Board will determine if any deviation to the construction schedule or workforce estimates is likely to create a materially different pattern or magnitude of impacts. If not, no further action is required. If yes, the Applicant will support the Siting Board's effort to revise its assessment of impacts and mitigation requirements.

6. The Applicant or its contractor will control access to the site during construction and operation. All construction entrances will be gated and locked when not in use.

7. The Applicant's access control strategy should also include appropriate signage to warn potential trespassers. The Applicant must ensure that all site entrances and boundaries have adequate signage, particularly in locations visible to the public, local residents and business owners.

8. According to National Electrical Safety Code regulations, the security fence must be installed prior to any electrical installation work. The substation will have its own separate security fences installed.

9. The cemetery located within the Project boundary (north of Sano Road on the western side of the Project site) represents a potential conflict with one of the proposed construction access points, potential construction staging areas and Project infrastructure. The Applicant must inform the owner and living relatives of those interred of the proximate construction and facility plans and secure written approval of their recognition and acceptance of this plan.[9]

[9] The Bennet family is currently responsible for maintaining this cemetery.

SECTION 4
Project Setting

Description of the Area

This section provides a description of the area surrounding the proposed Mt Olive Creek Project site. The Project site is located approximately three to five miles north of the City of Russell Springs, in Russell County (County), centered in Southern Kentucky. The topography of the area is plateaued with numerous reliefs allowing for many hills and rolling terrain, with the Cumberland River impounded by Wolf Creek Dam to form the 66,000-acre (at full capacity) Lake Cumberland along the entire southern border of the County.[10]

Population and housing density. As of mid-2019, approximately 17,900 people resided in Russell County.[11] The County's population has increased very slightly over the past 20 years; in 2000 the population was 16,315 and in 2010 the population was 17,565.[12,13] About 97 percent of the population is white and the median age of residents is 43.[14] Russell County's population is predicted to remain stable; the Kentucky State Data Center estimates 18,410 people will reside in the County in 2040, which is less than a three percent increase from 2019.[15] Currently, there are about 6,922 households in Russell County, with an average of about 2.5 persons per household.[16] There are 71 people per square mile, which makes Russell County average in population density as compared to other areas of Kentucky.[17]

In addition to Russell Springs, the other major city in Russell County is Jamestown, the County seat of Russell County. Jamestown and Russell Springs are about five miles apart. Russell Springs has a population of about 2,600 and Jamestown is also a small city with about 1,800 people. Lexington, located about 83 miles northeast of Russell Springs, is the nearest

[10] Kentucky Geological Survey. Groundwater Resources of Russell County, Kentucky. http://www.uky.edu/KGS/water/library/gwatlas/Russell/Topography.htm
[11] U.S. Census Bureau. Russell County QuickFacts. https://www.census.gov/quickfacts/russellcountykentucky
[12] U.S. Census Bureau. Russell County, Kentucky, Profile of General Demographic Characteristics. https://data.census.gov/cedsci/table?q=russell%20county%20kentucky&y=2000&tid=DECENNIALDPSF42000.DP1&hidePreview=true
[13] U.S. Census Bureau. Russell County, Kentucky, Annual Estimates of the Resident Population: April 2010 – July 1, 2019. https://data.census.gov/cedsci/table?q=russell%20county%20kentucky&tid=PEPPOP2019.PEPANNRES&hidePreview=true
[14] U.S. Census Bureau. Russell County, Kentucky, Age and Sex. https://data.census.gov/cedsci/table?q=russell%20county%20kentucky&tid=ACSST5Y2019.S0101&hidePreview=false
[15] Kentucky State Data Center, Projections of Population and Households, State of Kentucky, Kentucky Counties, and Area Development Districts 2015 – 2040. http://www.ksdc.louisville.edu/wp-content/uploads/2016/10/projection-report-v16.pdf
[16] U.S. Census Bureau. Russell County QuickFacts. https://www.census.gov/quickfacts/russellcountykentucky
[17] Statistical Atlas. Russell County, Kentucky. https://statisticalatlas.com/county/Kentucky/Russell-County/Population

metropolitan area in Kentucky. Lexington has a population of about 323,000.[18] The Lexington-Fayette metropolitan statistical area has a population of about 517,000.[19]

Income. In 2019, the per capita personal income in Russell County was $37,346.[20] This was 15 percent less than the average per capita personal income of the Commonwealth of Kentucky, and 34 percent less than the average in the United States.[21] As of mid-2019, about 23 percent of the Russell County population lives in poverty.[22]

Business and industry. In 2019, there were about 8,600 jobs in Russell County, with 71 percent classified as wage and salary jobs and 29 percent being proprietors' employment.[23]

- Manufacturing is the largest employment sector in Russell County, with 1,720 jobs.[24] The area touts itself as a good place for companies looking for low operating costs, low tax rates, reasonable wage scales, and a quality labor force. There are seven major manufacturers in the county: Dr. Schneider Automotive Systems (high-quality plastics for the automotive industry), Stephens Pipe & Steel (the nation's largest fully American-owned fencing business), Superior Battery Manufacturing Company (a diverse product line of power sources), BRUSS North America (the North American headquarters of a German automotive plant for sealing systems in transmissions and engines), Davis Gate & Wire Manufacturing (agricultural and chain link fencing), National Recycling Trailers (mobile recycling centers), and Lily Creek Industries (precision production parts).[25]

- Governmental work is the second largest sector in Russell County, with about 1,100 jobs. Retail trade is the next largest sector with roughly 1,030 jobs.

- Tourism is an important part of Russell County's employment and economy due to Lake Cumberland. The lake attracts several million visitors each year. It is known as the "Houseboat Capital of the World" as it hosts the largest fleet of rental houseboats in the U.S. Marinas also offer chartered and rental watercraft of all sizes. Fishing guides

[18] U.S. Census Bureau. Lexington-Fayette, Total Population.
https://data.census.gov/cedsci/table?q=Lexington-Fayette,%20Kentucky&tid=ACSDT1Y2019.B01003&hidePreview=false
[19] U.S. Census Bureau. Lexington-Fayette, Annual Estimates of the Resident Population by Metropolitan Statistical Area.
https://www.census.gov/data/tables/time-series/demo/popest/2010s-total-metro-and-micro-statistical-areas.html
[20] U.S. Bureau of Economic Analysis. Russell County, GDP and Personal Income.
https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&acrdn=6
[21] U.S. Bureau of Economic Analysis. United States and Kentucky, GDP and Personal Income.
https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&acrdn=2
[22] U.S. Census Bureau. Russell County QuickFacts.
https://www.census.gov/quickfacts/fact/table/russellcountykentucky,US/PST045219
[23] U.S. Bureau of Economic Analysis. Russell County, Total Full-Time and Part-Time Employment.
https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&acrdn=6
[24] U.S. Bureau of Economic Analysis. Russell County, Total Full-Time and Part-Time Employment.
https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&acrdn=6
[25] Russell County Industrial Development Authority. Industry Successes in Russell County.
https://rcidaky.com/industry-successes-in-russell-county

and charters are available year-round; national fishing tournaments are hosted on the lake where many national and world record catches have been made. Festivals and events are scheduled throughout the year.[26] Resorts, hotels, and cabins range from 3- and 2-star accommodations. The Wolf Creek National Fish Hatchery is also a major tourist draw as it is the only National Fish Hatchery with a visitor and education center. [27]

- Of Russell County's 180,000 acres, 52 percent (about 93,000 acres) were designated farmland in 2017. [28] The agriculture sector follows retail employment with about 730 jobs. [29]

Major and minor roads and railways. The Project site is mostly bounded on the south by KY 1545, on the east by Mt. Olive Creek Road, on the north by KY 76 (Millerfield Road), and on the west by Sano Road and West Sulpher Creek Road. Sano Road runs East-West through the center of the Project site. A small portion of the Project site extends beyond KY 76 to the east. US Highway 127 is less than a mile from the Project site and is the direct route south to Russell Springs; that highway runs from Alabama to Michigan.

Summary description. Based on HE's research, the area around the Project site can be generally described as rural with a few residences and farms nearby. The Project site is located about five miles north of Russell Springs, the closest city and gateway to the tourist area of Lake Cumberland. The local population is expected to grow very slowly over the next 30 years. Residents' income levels are low, and they currently experience higher than average rates of poverty than other counties in Kentucky and the U.S.[30] [31]

[26] Lake Cumberland Tourist Commission. About Lake Cumberland.
https://lakecumberlandvacation.com/
[27] U.S. Fish and Wildlife Service. Wolf Creek National Fish Hatchery.
https://www.fws.gov/southeast/wolf-creek/plan-your-visit/
[28] U.S.D.A. Agriculture Census 2017. Russell County Kentucky Profile.
https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Kentucky/cp21207.pdf
[29] U.S. Bureau of Economic Analysis. Russell County, Total Full-Time and Part-Time Employment.
https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&acrdn=6
[30] U.S. Census Bureau. Kentucky QuickFacts.
https://www.census.gov/quickfacts/fact/table/KY/POP060210
[31] Data USA: Russell Springs, KY.
https://datausa.io/profile/geo/russell-springs-ky/

SECTION 5
Description of Impacts

This section of the report addresses impacts to the following resource topics, as enumerated in KRS 278.708 and KRS 278.706(j):

- Compatibility of the facility with scenic surroundings;
- Potential changes in property values and land use for adjacent property owners;
- Anticipated peak and average noise levels;
- Road and rail traffic, fugitive dust, and anticipated degradation of roads and lands; and
- Economic impacts on the region and the state.

The statutes require that the SAR provides information about impacts to the above resources resulting from short-term construction activities and longer-term operational activities. The Siting Board also directed HE to address the potential effects of decommissioning activities, and that discussion is included in this section.

For each resource topic, HE describes generally accepted assessment criteria or methodology necessary to evaluate impacts of a project of this nature. We then summarize the relevant information included in the SAR, as well as supplemental information about the Mt Olive Creek Project provided by the Applicant in response to data inquiries. HE also provides additional information gathered about the Project and its potential impacts on the region through secondary source research, including interviews. Finally, HE draws conclusions about Project impacts as well as recommended mitigation measures.

Facility Compatibility with Scenic Surroundings

This component of the statute relates to how well the proposed facility will "blend-in" or is compatible with its physical surroundings and associated land uses. For example, certain industrial facilities can be unsightly, visually unappealing, and generally incongruous with the surrounding area. Coal-fired electric generating plants often have large smokestacks that can be seen from far away. Wind turbines are tall, and their blades can be seen spinning from miles away, etc. Generally, solar farms are considered to be less visually intrusive, as they are relatively short, and can be effectively visually blocked naturally with topographic variation or intervening vegetation, or through strategic means utilized by an applicant.

General methods of assessment. Visual impacts of solar facilities are highly dependent on the characteristics of the surrounding area, i.e., industrial, suburban residential, rural/agricultural. As a result, different methods may be used to assess the visual impacts of solar facilities, depending on location. The Argonne National Laboratory's Environmental Science Division and the National Park Service jointly developed the *Guide to Evaluating*

Visual Impact Assessments for Renewable Energy Projects; that document is a guide designed to help planners evaluate the quality and completeness of visual impact assessments for solar and wind facilities.[32] Additional reports have been published from public agencies and private firms on visual impact assessments for solar facilities.

Most visual impact assessments focus on visualizations of the appearance of the project from key observation points (KOPs). Since it is impossible to visualize proposed projects from every observation point, it is common for planners to utilize a "worst-case" potential visual impact, i.e., locations where perceived change may be greatest. The overarching goal of visual impact assessments is to determine potential visual impacts that may result from construction, operations, and decommissioning of a project, in a manner that is logical, repeatable, and defensible.[33]

A standard visual analysis generally proceeds in this sequence:[34]

- Description of the project's visual setting;
- Identification of KOPs. KOPs are locations near the project site where there is potential for solar facility components to be seen from ground-level vantage points, i.e., a nearby residence or a passing vehicle;
- Analysis of the visual characteristics of the project, i.e., height of solar panels, descriptions of other facility components; and
- Evaluation of impacts from KOPs.

Summary of information provided by the Applicant. The existing scenic setting of the area, potential visual impacts associated with the Project and proposed mitigation are addressed in several portions of the SAR.

Scenic surroundings. The Property Value Impacts Report (Attachment B of the SAR) states that "most of the site has good existing landscaping for screening the proposed solar farm". Photo images taken from various roads surrounding the Project site are included as Attachment D to the SAR. Those photos show a variety of trees, shrubs and grasses along roads surrounding the Project site; in some cases, the existing vegetation is dense enough that there is no view from the road of anything beyond the trees.

Potential visual impacts from Project construction. The SAR does not address the potential for visual impacts to adjacent landowners, local visitors or drivers during the construction phase; however, the Applicant notes, both in the SAR and in supplemental materials, that there is extensive existing vegetation surrounding large portions of the Project

[32] National Park Service, U.S. Department of the Interior. *Guide to Evaluating Visual Impact Assessments for Renewable Energy Projects*. August 2014. http://visualimpact.anl.gov/npsguidance/.
[33] Dean Apostol, James Palmer, Martin Pasqualetti, Richard Smardon, Robert Sullivan. (2016). *The Renewable Energy Landscape: Preserving Scenic Values in our Sustainable Future*. September 2016.
[34] Environmental Design & Research. *Visual Impact Analysis*. May 2019.

site and that views of construction activities are likely to be shielded depending on the location of the adjacent landowners and the location of the construction activities.

Potential visual impacts from Project operations and proposed vegetative buffers. The Project would include between 130,000 and 150,000 solar panels.[35] At a maximum height of about 15 feet, those panels would likely be the main source of visual impact of the Project. Section 2 of the SAR states the following:

"Once the Project is complete, it will be visible from stretches of small county roadways around the Project area. The Project will also be visible from Millerfield Road (KY 76), which is classified as a rural Minor Collector. Millerfield Road (KY 76) is a more frequently traveled road, and therefore the Project has proposed to fully buffer the view from Millerfield Road (KY 76) with vegetative buffering to obscure the view of the facility."

There are also sections of vegetative buffer proposed to obscure the view of the Project from the closest adjacent neighbors who do not have an existing vegetative screen, and from the neighborhood on the west side of the Project on Sano Road. There are five homes within 150 feet of the Project boundaries. Two of those homes have existing vegetation behind their homes. Vegetative buffering is proposed to add a visual screen for the three other residences within 150 feet of the Project boundaries.

The main rural roadway that runs through the Project is Sano Road; there is one non-participating landowner on the stretch of Sano Road adjacent to the Project. The intent of the proposed vegetative buffering on Sano Road is to obscure the viewshed from that residence.

According to the Applicant, existing on-site vegetation will be largely removed to accommodate the solar panels and other Project infrastructure or facilities, unless it is located in a wetland buffer. However, existing vegetation surrounding the Project site will be kept intact to the greatest extent possible. Proposed vegetative buffers will help screen the view of the facility from sections of roads surrounding the Project that do not have existing vegetation to block the view of the Project.

The Preliminary Project Layout (Attachment A of the SAR) identifies six areas of vegetative buffers proposed for different locations around the Project site: (1) one buffer along the western corner of the site, including a portion along Sano Road just east of W. Sulpher Creek Road; (2) one buffer further east along Sano Road, in front of the one of the impacted residences described above; (3) three buffer areas along the east and west sides of Millerfield Road (KY 76) in the vicinity of the intersection with T Wethington Road; and (4) one small buffer to the west of Millerfield Road, south of Miller Short Road, to shield a specific residence.

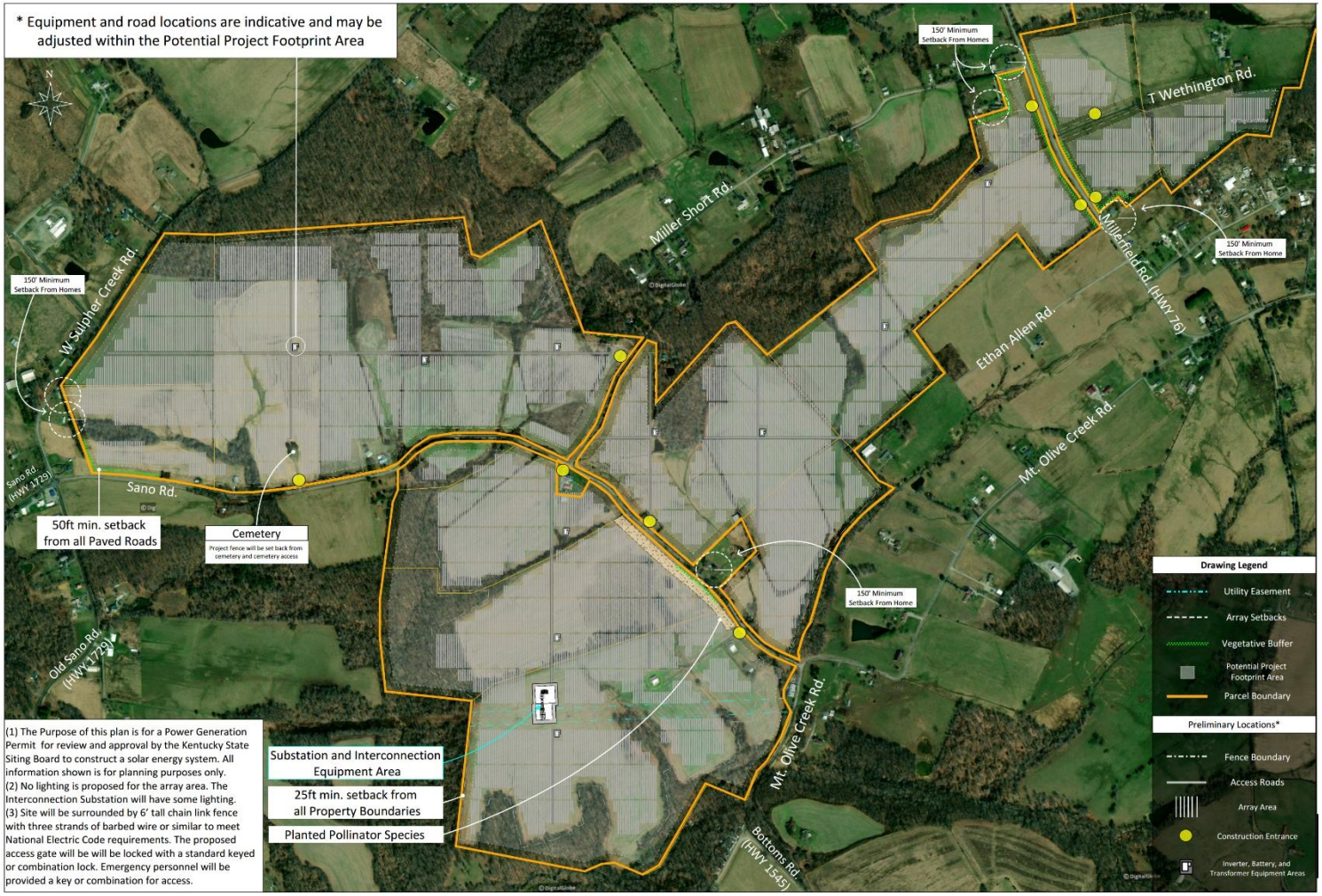
According to supplemental materials provided by the Applicant, the locations for the proposed vegetative buffers were determined based on a visual inspection of the amount of existing vegetation and the Project's proximity to existing structures at different points around the Project site; elevational changes were also a consideration. The Applicant made an effort to analyze the viewshed from many different points and directions with an emphasis on residences

[35] The final number of solar panel modules will depend on the wattage class of available modules.

in the immediate vicinity of the Project. The Applicant notes that existing vegetation deems additional plantings redundant in most locations. Additionally, due to existing tree lines that will be preserved and changes in elevation, the Applicant concludes that most, if not all, residences outside the immediate vicinity will not have a view of the Project.

Exhibit 5-1 offers the Preliminary Project Layout map provided by the Applicant (previously shown as Exhibit 3-1), which also highlights the proposed vegetative buffers.

Exhibit 5-1.
Preliminary Project Layout, with Proposed Vegetative Buffers



Source: Mt Olive Creek Solar, LLC, July 2021.

Vegetative buffers will consist of two staggered rows of evergreen shrubs that have a mature height of approximately 15 feet.[36] The rows will be spaced approximately 15 feet apart, and the shrubs will be at least three feet in height at time of planting. It is expected that the shrubs will reach their mature height within three to five years after planting. Applicant materials note that the Project site will have a vegetation management procedure, addressing vegetation maintenance throughout the operational phase.

The substation is another facility that may create visual impacts; however, the Mt Olive Creek substation is located in the southwestern portion of the Project site in an area generally surrounded by trees and vegetation. The substation would be at least 1,500 feet from the nearest residences. According to the Applicant, one adjoining landowner had initial concerns about the visual impacts of the substation; as a result, the substation was moved further from that parcel.

Potential for glare from Project panels. The Applicant has not studied the potential for glare from the solar panels at the Project site and has not completed a formal glare study at this location, stating that glare has proven not to be a significant issue for similar solar projects.[37] The Project will use anti-glare panels to minimize any occurrence of glare. According to the Applicant, glare would constitute a loss of system efficiency; therefore, it is in the Project's best interest to eliminate or reduce glare. Although vegetative buffering is not intended to address glare, vegetation would reduce reflection, if it were to occur. With regard to traffic on Millerfield Road (KY 76) specifically, Applicant materials note that the road is a North-South moving road, as are the panel rows; therefore, drivers on Millerfield Road would not directly face the solar panels. If glare issues arise, the Applicant has stated that they are willing to consider a variety of mitigating actions, depending on the location and severity of the glare.

HE's evaluation of impacts. HE reviewed maps and Google Earth satellite imagery of the site and used Google Maps to "drive" around the area to assess viewpoints of the Project from a vehicle commuter's point of view. In addition, HE staff made a visit to the Project site on July 27, 2021. During this site visit, we visited all proposed access points, drove around the Project boundary to gain line-of-sight to various viewpoints, and compiled a photo log of the Project boundary at different areas. The photo log can be found in Appendix B of this report.

Visual setting. HE's site visit confirmed information provided by the Applicant and gathered as part of the Project evaluation, with regards to the rural nature and "look" of the area. Many trees, shrubs and grasses exist along roadways and on property boundaries in the vicinity of the Project area. The area surrounding the Project is rural and agricultural, with some homes in close proximity to the Project boundary and other homes situated a bit further away. Rolling hills and existing vegetation will help protect against negative visual impacts to local residents and commuters.

[36] Applicant materials note that environmental consultants will identify a mix of different shrubs suitable for Kentucky.
[37] According to the Applicant, any complaints regarding glare will be handles on an ad hoc basis.

Exhibit 5-2 shows information regarding the proximity of residences and other buildings in relation to the solar panels. Ten residences are within 300 feet of the solar panels, 47 residences are within 900 feet, and 109 residences are within 2,400 feet of the solar panels.

Exhibit 5-2.
Distance of Structures from Mt Olive Creek Project Solar Panels

Distance from Solar Panels (ft)	Residential Structures	Commercial Structures	Churches	Other Structures
0 - 300	10	0	1	20
301 - 600	19	3	0	30
601 - 900	18	0	1	39
901 - 1,200	26	0	0	25
1,201 - 1,500	11	0	0	23
1,501 - 1,800	8	0	0	9
1,801 - 2,100	4	0	1	11
2,100 - 2,400	13	0	0	19
Total Structures	109	3	3	176

Note: Other structures includes barns, warehouses and similar ancillary structures.

Source: Mt Olive Creek Solar, LLC, August 2021.

Three commercial facilities are located between 300 and 600 feet from the closest solar panels and two churches are located within 900 feet of the solar panels.

Construction activities. Some adjacent landowners and commuters driving along local roads, including W. Sulpher Creek Road, Sano Road and Millerfield Road (KY 76), will likely be able to see construction equipment and activity as it occurs. However, there are few homes in the area and those that are located in the vicinity of the Project may be at some distance from construction activities. Traffic in this area is minimal. Additionally, construction activities will occur across the Project site at different times, potentially limiting the duration of visible activity in any one location.

Overall, HE expects the visual impacts from construction activities to be minimal. However, one construction access point and one staging area are proposed to be located in very close proximity to the small family cemetery along Sano Road. Construction vehicles, worker presence and associated activities will deter from the atmosphere and view expected when visiting a cemetery.

Project facilities. HE's focus of the scenic compatibility evaluation is upon the solar panels, as those structures will be above ground in close proximity to several residences and roads. However, existing vegetation and the vegetative buffers proposed for specific locations surrounding the Project site will largely shield the panels from view for nearby residents and drivers. The Project will use anti-glare panels, reducing or eliminating any glare. The Applicant has committed to working with neighboring homeowners and business owners to address concerns related to the visual impact of the Project on its neighbors.

As previously discussed, the substation will be located in a generally remote area surrounded by existing vegetation. Three residences will be located between 1,500 and 1,800 feet from the substation. It appears that these residences will be well buffered by existing trees and are not likely to have a view of the substation.

Given the current configuration of panels and lack of existing or proposed vegetative buffering around the cemetery, there will be a scenic compatibility issue associated with the cemetery. The small family cemetery will be surrounded by panels, resulting in a full view of Project facilities. The view of Project panels while visiting the cemetery does not allow for the expected experience.

Conclusions and recommendations. Based on our review of the SAR, supplemental information provided by the Applicant, and additional research conducted by HE, we offer the following conclusions and recommendations regarding scenic compatibility:

- Construction vehicles and activity may be visible from local roadways and at several vantage points around the Project site, but these effects will be temporary as construction work moves around the site. Existing vegetation left in place along the Project boundary line will reduce visibility of construction activities occurring on-site.

- Operational infrastructure, including the solar panels, will be shielded by existing vegetation in the area (trees, shrubs and grasses) and by the vegetative buffers proposed for specific areas along the Project boundary. Proposed buffers will largely be used to shield infrastructure in highly visible areas. Rolling hills in the area will also reduce the visibility of the infrastructure in some areas for residents and drivers.

- The use of anti-glare panels will reduce, or eliminate, the potential for glare from solar panels for local residents and drivers.

- The substation will be located in a remote area of the Project site and will be well buffered by existing vegetation. The substation will essentially be hidden from view for nearby residences.

- The Project is incompatible with the small family cemetery located along Sano Road with regard to the viewshed and scenic effects, during both construction and operations. A Project access road and construction laydown area will be adjacent to the cemetery and its access road. The cemetery is located on land owned by a willing Project participant, but others with loved ones buried in that area may take issue with the Project proximity to the cemetery.

Need for mitigation. The visual impacts are likely to be such that the Applicant should consider certain mitigation:

1. The Applicant will not remove any existing vegetation unless the existing vegetation needs to be removed for placement of solar panels.

2. Existing vegetation between the solar arrays and the residences will be left in place, to the extent practicable, to help screen the Project and reduce visual impacts from the nearby homes and roadways.

3. The Applicant will work with homeowners and business owners to address concerns related to the visual impact of the Project on its neighbors.

4. The Applicant should provide a visual buffer between Project infrastructure and residences or other occupied structures with a line of sight to the facility to the satisfaction of the affected property owners. If vegetation is used, plantings should reach eight feet high within four years. To the extent that an affected property owner indicates to the Applicant that such a buffer is not necessary, Mt Olive Creek will obtain that property owner's written consent and submit such consent in writing to the Siting Board.

5. The Applicant will follow through on its commitment to providing vegetative buffers at the locations indicated on the Preliminary Project Layout map included in the application materials. If the final site layout plan deviates from the preliminary plan with regard to the locations of solar panels, inverters, substation or other Project infrastructure, an additional evaluation of the need for vegetative buffers will be conducted and reviewed by the Siting Board.

6. The Applicant will develop a vegetation management plan that describes the approach and procedures for maintaining or replacing vegetative buffers as needed.

7. The cemetery located within the Project boundary along Sano Road represents a potential conflict with regard to scenic compatibility. The Applicant must inform the owner and living relatives of those interred of the proximate construction activities and facility plans and secure written approval of their recognition and acceptance of this plan.[38]

8. The Applicant will cultivate at least two acres of native pollinator-friendly species on-site.

9. The Applicant has committed to using anti-glare panels and operating the panels in such a way that glare from the panels is minimized or eliminated. The Applicant will immediately adjust solar panel operations upon any complaint from those living, working, or traveling in proximity to the Project. Failing this, the Applicant will cease operations until the glare is rectified.

Potential Changes in Property Values and Land Use

The construction and operation of industrial facilities has the potential to negatively affect property values and/or land uses of those properties adjacent to, or even in the general vicinity of, the facility in question. The magnitude, timing, and duration of increased traffic volume, noise, odor, visual impairments, or other emissions associated with the facility can influence

[38] The Bennet family is currently responsible for maintaining this cemetery.

the marketability and value of nearby properties. Each of those factors are addressed in this report and are considered here in examining property value impacts.

General methods of assessment. The value of a residential property is based on several factors, including characteristics of the home and the land on which it is situated, the uses and values of the surrounding property, among other attributes. The value of a residential property will consider factors such as lot size, age of home, size of home, number of bedrooms and bathrooms, etc. A residential property located near public lands or open spaces may be more highly valued, whereas the same property located near a heavy industry facility might have a lower value. Residential properties will be assessed differently than agricultural or industrial properties.

Several methods are available to assess the impacts of a new development on nearby property values. A technique known as hedonic pricing analysis can be used to determine the impacts of a specific characteristic on the price or value of a property. However, this method of valuation requires large amounts of data, statistical experience, and careful evaluation. Formal appraisal is a technique which uses the concept of specific property characteristics in comparing different properties. Matched pair analysis is another technique. A matched pair analysis makes a comparison between similarly situated properties that sold before and after a new industrial facility is constructed. This approach is described in more detail below.

Summary of information provided by the Applicant. The Property Value Impact Report (Attachment B of the SAR) was completed by the Applicant's consultant, Richard Kirkland of Kirkland Appraisals, LLC. Referred to here as the Kirkland report, that document, along with additional follow-up information from Mr. Kirkland provides the following relevant information:

- ***Land uses of adjacent properties*** – Kirkland describes adjoining land as primarily a mix of residential and agricultural uses. About 28 percent of the acreage adjacent to the facility is agricultural; an additional 47 percent is mixed agricultural/residential and about 24 percent is identified as purely residential. According to the Applicant, an estimated 76 residences, three commercial structures and two churches are located within 1,200 feet of the Project fence line.

- ***Distances between solar panels and homes on adjacent properties*** – The Kirkland report indicates that the closest homes will be 150 feet away from a solar panel. In response to HE's inquiries, the Applicant provided additional information about the distance between various structures and the Project boundary fence and between structures and the nearest solar panels; those data were provided in Exhibits 3-2 and 5-2, respectively. Altogether, a total of 73 homes, three commercial structures, two churches and 114 other structures are located within 1,200 feet of the solar panels.[39]

- ***Academic research studies, appraisal market studies and other publications*–** The Kirkland report provides summaries of four research papers addressing property value impacts of solar or wind facilities. Based on his understanding of each study, Mr.

[39] Other structures are described as including barns, warehouses, and similar ancillary facilities.

Kirkland concludes that proximity to a solar facility has no impact (positive or negative) on property values. Mr. Kirkland also provides the results of several appraisal studies focused on the presence of solar facilities, which all conclude finding no impacts on property values due to proximity to solar facilities.

- ***Discussion of a "matched pair" analysis*** – The Kirkland report employs an analytical approach described as a matched pair analysis, which aims to determine the impact of a specific feature or attribute on property value. This form of "matched pair" analysis compares differences between the sales prices of properties adjacent to a solar facilities and sales prices of properties located further from that same facility.[40] Mr. Kirkland identifies and compares the sales prices of properties sold using data from 37 different solar farms across multiple states. In general, each of the solar farms included in the analysis are relatively similar in terms of rural, less densely populated locations. Nearby land uses are typically residential and agriculture in nature. The size of the solar facilities evaluated ranges from 5.0 MW up to 617 MW and from an overall property size of 35 acres (5 MW facility) up to 3,500 acres (617 MW facility).[41] The results of this analysis and Mr. Kirkland's overall conclusions are discussed below.

- ***Effects of landscaping buffers on property values*** – The Kirkland report also provides an analysis of home price differentials based on Project size in combination with the amount of vegetative buffer (light, medium or heavy) from existing landscaping and Project planting and the distance between the home and solar panels. Mr. Kirkland concludes that once Project facilities have been substantially screened with a light buffer (such that no price differential exists), additional buffering has no further beneficial effect on property values, regardless of Project size.

- ***Narrative discussion of specific factors related to impacts on property values*** – Mr. Kirkland briefly addresses the topics of hazardous materials, odor, noise, traffic, stigma and appearance as related to solar facilities in general and concludes that the "proposed solar farm [Mt Olive Creek] will not negatively impact adjoining property values". He does state that "the only category of impact of note is appearance, which is addressed through setbacks and landscaping buffers."

- ***Construction related impacts to property values –*** Mr. Kirkland states that no impacts to property values are anticipated due to construction activity on the Project site. The report notes that "construction will be temporary and consistent with other development uses of the land and in fact dust from the construction will likely be less than most other construction projects given the minimal grading".

Kirkland's conclusions. The Kirkland report presents two sets of analysis: (1) property price differentials for 23 solar facilities (56 matched pairs) located in the Southeastern U.S. and (2) property price differentials for 37 solar facilities (94 matched pairs) located across the entire

[40] Kirkland adjusts for such factors as date of sale, age of home, square footage, number of bedrooms and bathrooms and garage spaces prior to comparing sales prices.
[41] Of the 37 solar facilities used in Kirkland's analyses, 36 facilities are 80 MWs or smaller.

U.S. Those analyses note the degree of vegetative buffer (light to heavy) between the adjacent property and the solar facility for each matched pair set.

Southeastern U.S. solar facilities. Based on analysis of the 56 residential dwelling matched pairs associated with the 23 solar facilities located in the Southeastern part of the U.S., Mr. Kirkland concludes that:

> "The range of differences (in sales prices) is from -10% to +10% with an average of +1% and median of +1%. This means that the average and median impact is for a slight positive impact due to adjacency to a solar farm. However, this +1% rate is within the typical variability I would expect from real estate. I therefore conclude that this data shows no negative or positive impact due to adjacency to a solar farm."

Mr. Kirkland acknowledges that the range is "seemingly wide" but notes that the "vast majority of the data falls between -5% and +5% and most of those are in the 0 to +5% range."

National solar facility data. Mr. Kirkland's analysis of the 94 matched pair sets associated with 37 solar facilities across the U.S. found the following:

> "The matched pairs show no negative impact at distances as close as 105 feet between a solar panel and the nearest point on a home. The range of impacts is -10% to +10% with an average and median of +1%."

Mr. Kirkland notes that the range is "broad", but that only three data points out of the 94 matched pairs show a negative impact. Nine sets indicate a positive effect, and the remaining sets show no impact. Mr. Kirkland states that he considers this data "to strongly support a finding of no impact on value as most of the findings are within typical market variation and even within that, most are mildly positive findings."

In addition to the conclusions summarized above, Mr. Kirkland also states that "proper vegetative buffers are an important part of screening and maintaining adjoining values." That conclusion appears to be supported by the landscaping analysis in the report and Mr. Kirkland's follow-up statement that substantial screening with even a light buffer can adequately address visual impacts (related to property values).

HE's evaluation of impacts. To assess the topic of impacts to property values, HE: (1) reviewed relevant existing literature related to solar facility impacts; (2) conducted an interview with the Russell County Property Value Administrator (PVA); and (3) prepared further analysis of the data provided in the Kirkland report.

Literature review. HE reviewed the existing literature related to the relationship between property values and utility–scale solar facilities. Overall, there are not many studies available that address the issue of changes in property values specifically related to solar facilities; the few that are available include the following:

- A 2020 study completed by economists at the University of Rhode Island found that in areas of high density houses within a one-mile radius depreciate by about 1.7

percent following construction of a solar array. The study found "substantially larger negative effects for properties within 0.1 miles and properties surrounding solar sites built on farm and forest lands in non-rural areas." However, additional analysis focused on impacts in more rural areas found that the "effect in rural areas is effectively zero (a statistically insignificant 0.1%) and that the negative externalities of solar arrays are only occurring in non-rural areas." The researchers note that this may be due to solar facilities being less visible in rural areas (due to land abundance for vegetative buffers).[42]

- A 2020 study focusing on the property value effects of wind turbines and solar facilities in the Netherlands states evidence suggesting that the negative effects of solar facilities (including noise [buzzing sounds], glare and visibility) results in decreased residential housing prices (2-3%). They found these effects to be localized (within 1 kilometer of the facility, or a little more than half a mile). However, the researchers also note that the relatively small number of solar facilities in the Netherlands makes the results less precise (as compared to the wind farm analysis).[43]

- A 2019 article produced by the American Planning Association indicates that the "impact of utility-scale solar facilities is typically negligible on neighboring property values." The issue of property value impacts "can be a significant concern of adjacent residents, but negative impacts to property values are rarely demonstrated." [44]

- A 2018 University of Texas study included a geospatial analysis and a survey of residential property assessors to determine the potential for property value impacts. The results show "that while a majority of survey respondents estimated a value impact of zero, some estimated a negative impact associated with close distance between the home and the facility, and large facility size. Regardless of these perceptions, geospatial analysis shows that relatively few homes would be impacted."[45]

- Independent appraisers are often hired to conduct analyses related to property value impacts for solar companies, as is the case for the Mt Olive Creek Solar Facility. Those analyses focus on property value trends of lands adjacent to existing solar

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[42] Gaur, V., and C. Lang. *Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island*. University of Rhode Island, Department of Environmental and Natural Resource Economics, September 2020. https://web.uri.edu/coopext/files/PropertyValueImpactsOfSolar.pdf

[43] Koster, H. and M. Droes. *Wind turbines and solar farms drive down house prices.* VoxEU, September 2020. https://voxeu.org/article/wind-turbines-and-solar-farms-drive-down-house-prices. Mr. Koster is Professor of Urban Economics and Real Estate at Vrije University in Amsterdam; Mr. Droes is Assistant Professor of real Estate Finance at the University of Amsterdam.

[44] Coffey, Darren. *Planning for Utility-Scale Soar Energy Facilities.* American Planning Association, PAS Memo, September – October 2019. https://www.planning.org/pas/memo/2019/sep/.

[45] Al-Hamoodah, Leila, et al. *An Exploration of Property-Value Impacts Near Utility-Scale Solar Installations.* Policy Research Project, LBJ School of Public Affairs, The University of Texas at Austin, May 2018. https://emp.lbl.gov/sites/default/files/property-value_impacts_near_utility-scale_solar_installations.pdf.

farms across the country, using a paired sales or matching pair approach. HE reviewed several appraisal reports (not completed by Kirkland Associates); those appraisals indicate differences in property values ranging from about -3.2% to as much as +27%, although generally in cases with positive impacts, property values increased by about 5% or less. Overall, the conclusions were that solar facilities do not negatively impact property values.[46]

It is interesting to note that although the few existing studies related to this issue generally indicate no impacts to property values, local residents often bring up concerns about property values during public hearings or open houses related to specific solar facilities. In many cases, as evidenced by newspaper articles or other media, residents believe that property values will be reduced by nearby solar farms. So, there may at least be a perception of negative effects on property values that permeates communities.

Interview with Mr. Tim Popplewell, Russell County PVA.[47] Mr. Popplewell has been the Russell County PVA since 2010. He is aware of the Mt Olive Creek Project and is familiar with Project details and the Project site. He also attended the site visit in which HE participated (including representatives of the Applicant and the Siting Board) on July 27, 2021. Mr. Popplewell described the real estate market in Russell County as very strong – it's a hot market, with high demand for homes in the area, low inventory, and rising home prices. Several factors appear to be driving that activity, including the effects of the pandemic (i.e., people wanting to move away from more densely packed areas, ability to work remotely) and current low interest rates. Additionally, the presence of Lake Cumberland also drives interest in the area. Mr. Popplewell noted that the area has seen many people moving in from out of state.

With regard to the Mt Olive Creek Project, Mr. Popplewell does not believe that its presence or operation will either increase or decrease property values in the area. At this point in time, in this market, he stated that nothing seems to deter sales. He did acknowledge that the Mt Olive Creek Project is the first of its kind in the County, and that any effects on property values, if they are to occur, would take some time to be seen. However, he also stated that he has spoken with other real estate professionals across Kentucky about this issue and the feedback he received was that a solar facility does not appear to have any different impacts than that of typical commercial developments. He believes that vegetative buffers and efforts to reduce the visibility of the solar panels is important and can influence perception of the area.

Review of Kirkland data. Although Mr. Kirkland concludes that there would be no impacts on property values from the Mt Olive Creek Solar Facility, the matched pair analysis does

[46] McGarr, P. and A. Lines, CohnReznick, Property Value Impact Study, Proposed Soar Farm, McLean County, IL, 2018; McGarr, P. and A. Lines, CohnReznick, Property Value Impact Study, Proposed Soar Farm, Kane County, IL, 2018; McGarr, P., CohnReznick, Property Value Impact Study, Adjacent Property Values Solar Impact Study: A Study of Nine Existing Solar Farms Located in Champaign, LaSalle, and Winnebago Counties, Illinois; and Lake, Porter, Madison, Marion, And Elkhart Counties, Indiana, 2018; McGarr, P., CohnReznick, Property Value Impact Study, Adjacent Property Values Solar Impact Study: A Study of Eight Existing Solar Farms Located in Lapeer County, Michigan; Chisago County, Minnesota; Marion County, Indiana; LaSalle County, Illinois; Bladen, Cumberland, Rutherford and Wilson Counties, North Carolina; and Isle of Wight County, Virginia, 2020.

[47] Telephone interview conducted with Susan Walker of Harvey Economics on August 5, 2021

indicate the potential for a range of positive or negative effects. Therefore, HE examined more closely the data provided in the matched pair sets to determine the likelihood of a positive impact, negative impact, or no impact.

Exhibit 5-3 summarizes that effort, presenting a detailed picture of the distribution of price differences for matched pair sets. About 87 percent of matched pair comparisons reflected a sales price differential of between negative five percent and positive five percent, with almost 18 percent of comparisons showing no price differential at all. About 23 percent of all comparisons showed a negative impact on home prices, as compared with almost 59 percent of comparisons indicating a positive effect. Overall, these data appear to support Mr. Kirkland's conclusion of no property value impacts due to proximity to solar facilities.

Exhibit 5-3.
Distribution of Sales Price Differences for Matched Pair Sets, Southeastern U.S.

	Southeastern U.S. Facility Analysis	
# Facilities Included	23	
# Matched Pair Sets	56	
Range of Impact		
-6% to -10%	2	3.6%
-1% to -5%	11	19.6%
0%	10	17.9%
1% to +5%	28	50.0%
+6% to +10%	5	8.9%
Total	56 Pairs	100.0%

Source: Kirkland report data set, 2021.

Exhibit 5-4 provides a summary of Mr. Kirkland's analysis of the effects of different levels of landscaping and vegetative buffers on home sales price. Although Mr. Kirkland concluded that medium or heavy buffering provides no additional benefits (in mitigating impacts to property values) over "substantial" light buffering, the summary provided below seems to suggest that heavier buffering could potentially minimize the large range of price impacts evident with lighter buffering. However, the three matched pair sets identified as having heavy landscaping buffers may not provide a large enough sample size to accurately test that theory.

Exhibit 5-4.
Effects of Light, Medium or Heavy Vegetative Solar Facility Buffers on Home Prices, Southeastern U.S.

	Southeastern U.S. Facility Analysis			
# Facilities Included	23			
# Matched Pair Sets	56			
		Price Differencial		
Vegetative Buffer	# Matched Pair Sets	Average	Median	Range
Light	41	2%	1%	-10% - +10%
Medium	12	1%	2%	-7% - +9%
Heavy	3	0%	0%	0% - +1%

Source: Kirkland report data set, 2021.

Conclusions and recommendations. Based upon review of the Kirkland report and our additional research efforts and interviews, HE offers the following conclusions related to potential impacts to property values or land uses for adjacent property owners:

- Certain literature suggests that concerns surrounding impacts to property values from solar facilities stem from visibility of panels and other infrastructure. If that is the case, the creation of vegetative or other buffers may go a long way to reducing concerns or mitigating potential reductions in property values.[48]

- Current research suggests that the existence of solar facilities does not, in general, measurably result in negative influences on property values for adjacent landowners in rural areas. HE's data analyses also generally point to a conclusion of no discernible impacts to property values, although there is a small risk of negative impacts.

- Construction activities will be temporary, occurring over a period of about 12 months. Those activities will result in increased traffic and noise in the vicinity of the project; however, homebuyers and those interested in buying other types of properties often have a longer-term mindset when considering a purchase. Additionally, the current strong real estate market in Russell County will likely have a larger influence on desirability and prices than the solar facility construction. Even so, some sales might be delayed because of uncertainty.

- The Russell County PVA, who has been in that position for more than 10 years, does not believe that the Mt Olive Creek Project will have any effect on local property values for several reasons, including the current strong real estate market in the area and the

[48] Community & Environmental Defense Services, located in Maryland supports coordination between solar companies and landowners related to screening measures to protect the view. Community & Environmental Defense Services, Solar Farms: Protecting Homes, Property Value, Views & the Environment While Reaping Solar Energy Benefits. https://ceds.org/solar/

level of existing and proposed vegetation surrounding the Project site, which will decrease its visibility.

- HE concludes that property values in the Project area and in Russell County are unlikely to be affected by the siting of the Mt Olive Creek Solar Facility. This conclusion assumes that the mitigation strategies discussed in Section 6 are adopted by Mt Olive Creek.

Need for mitigation. No unique mitigation measures are recommended related to potential impacts to property values or adjacent land uses because other mitigation can accomplish this. However, close coordination by the Applicant with concerned homeowners regarding these mitigation measures should be initiated.

Anticipated Peak and Average Noise Levels

Noise issues stem from construction activities and operational components of the solar facility. During construction, noise will include graders, bulldozers, excavators, dozers, dump trucks, pile drivers, and other equipment. During operations, noise will be emitted from transformers, inverters, and the tracking motors that tilt the panels to track the sun throughout the day. Distance from noise emitters to noise receptors is important since noise levels decrease the further a noise receptor from a noise emitter. Russell County does not have a noise ordinance.[49]

General methods of assessment. Sound levels are measured in decibel units (dB). Decibels are measured on a logarithmic scale that quantifies sound intensity. Sound levels are typically described as dBA, which is the measure of the overall noise level of sound across the audible spectrum to compensate for the varying sensitivity of the human ear to sound at different frequencies. The impacts of noise are not strictly related to loudness; the time of day when noise occurs, the duration of the noise, and baseline or background noise levels are also important factors in determining the "loudness" of a noise.

Generally speaking, an increase in 10 dBA is perceived as a doubling of loudness, that is to say, 70 dBA is perceived as twice as loud as is a level of 60 dBA.[50] A change of three decibels is barely noticeable, but a change of five decibels is typically noticeable. Once sounds reach 90 dBA humans can experience pain from the noise and sounds above 150 dBA can cause permanent hearing damage.[51] For additional context, 30 dBA is the sound emitted by a whisper, 55 dBA are emitted from a percolating coffeemaker, and 90 dBA would be the sound emitted by an individual's yell.

A standard noise impact assessment focuses on several key factors:[52]

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[49] Letter from Russell County Judge Executive, Gary Robertson, April 12, 2021.
[50] RECON Environmental, Inc. *Noise Analysis for the Drew Solar Project, Imperial County, California*. July 24, 2018. http://www.icpds.com/CMS/Media/Drew-Solar---Appendix-G.pdf
[51] Alpine Hearing Protection website, https://www.alpinehearingprotection.co.uk/5-sound-levels-in-decibels/#:~:text=0%20decibel%20is%20the%20so,permanent%20damage%20to%20your%20hearing.
[52] Department of Energy. Noise and Vibration Impact Assessment Methodology. https://www.energy.gov/sites/prod/files/edg/media/EIS0250F-S2_0369_Volume_V_Part_3.pdf;

- Measurement of existing ambient noise levels;
- Identification of noise-sensitive receptor sites;
- Calculation of distances between noise sources and sensitive receptors;
- Estimation of Project-related (construction or operational) noise production and exposure, including cumulative noise effects.

Summary of information provided by the Applicant. Attachment F of the SAR is the Noise and Traffic Study completed by GAI Consultants, Inc. The Study provides information about Project noise levels during construction and operations potential impact to area homes, businesses, and other noise receptors.

Baseline (ambient) noise levels. The areas surrounding the Project site are described as agricultural, residential, or agricultural/residential. The Applicant indicates that existing local sound environment will continue to be dominated by several existing significant sources of sound. These existing sources consist of primary and secondary roadways including KY 1729 and KY 76. Other sources of existing noise include cattle farms, insects, dogs, birds, other wildlife, and noise typically associated with a rural farming location. The Noise and Traffic Study states that ambient daytime sound level for the area surrounding the Project is anticipated to be between 50.0 and 60.0 dBA.

Sensitive noise receptors. The Applicant identified 10 residential structures within 300 feet of the proposed solar panels (Exhibit 3-2). There is also one church within 300 feet of the Project footprint. Other structures in the area are barns and other out-buildings that are not considered sensitive noise receptors. The solar panels do not make noise during operations, but the panels will be mounted to racking systems that are powered by tracker motors, and the tracker motors are a source of potential noise emissions.

The Applicant identified two residences within 900 feet of the nearest inverter and a total of nine residences within 1,200 feet of the nearest inverter. The closest residence to the substation is between 1,500 and 1,800 feet from that facility.

Construction noise emitters. Construction equipment expected to be utilized for this Project can generate considerable noise. The Applicant states that sound levels generated by equipment used on the site are anticipated to range from 70 to 125 dBA at the source, based on professional judgement and experience with equipment in typical use for similar types of projects. There are myriad pieces of construction equipment estimated to emit noise levels greater than 80 dBA at 50 feet, which can be clearly heard from over 1,000 feet away.

During construction activities, the loudest piece of equipment used will be a pile driver (approximately 125.0 dBA at three feet from the source), which pounds posts into the ground. The posts are a critical part of the operational infrastructure, as they hold the solar panels off the ground. These pile drivers will move throughout the Project Area, pounding posts into the ground wherever solar panels are to be constructed.

The pile driving activity for the proposed Project is estimated to occur for 4 to 16 weeks and will generate noise emissions greater than 55 dBA for nearly a mile. As the construction moves across the site, activities would only occur in immediate proximity to individual receptors for a limited duration. During the construction phase of the project, sound level impacts at 300 feet from active pile driving operations would be equivalent to the sound level produced by the use of a household hairdryer. Pile driving activities may occur for more or less time depending on factors such as shallow bedrock or wet weather.

The Applicant indicates that a six-foot fence will be installed along the Project boundary line and that additional fencing will be placed around the substation and the interconnection equipment area. Steel fence posts are installed using pneumatic handheld post drivers. The noise from the installation might exceed 90 dBA at the source. However, fence post driving is a short intermittent activity, less than two minutes per post, and the activity will move quickly past houses as each post is in place.

The Applicant anticipates construction activities will generally occur from 7am – 9pm, Sunday to Saturday.[53] The Applicant has stated that during normal construction activities, work will not occur after 9pm.

Operational noise emitters. There are three main types of noise emitters during operations for this Project: 15 inverters, 15 battery energy storage systems (BESS), Heating, Ventilation and Air-Conditioning (HVAC) units, and the substation transformer.[54] Additionally, the motors that turn the single axis tracking system also produce noise. These tracking motors are expected to generate sound levels of approximately 20 dBA at a distance of 100 feet, which will not increase the ambient sound level environment.

The central inverters will emit a sound pressure level of 57.1 dBA at 100 feet, and at 300 feet this noise reduces to less than 47.6 dBA. As noted previously, the closest residence is between 600 and 900 feet away from the nearest inverter. Therefore, no residences will experience noise emissions greater than 47.6 dBA from Project operations.

The substation transformer will emit a sound pressure level of 71 dBA at a distance of three feet. At 50 feet, this noise dissipates to imperceptible levels or 46.6 dBA. The Noise and Traffic Study states that the operation of the substation will not increase the ambient sound level environment. As noted previously, the closest residence is between 1,500 and 1,800 feet from the substation.

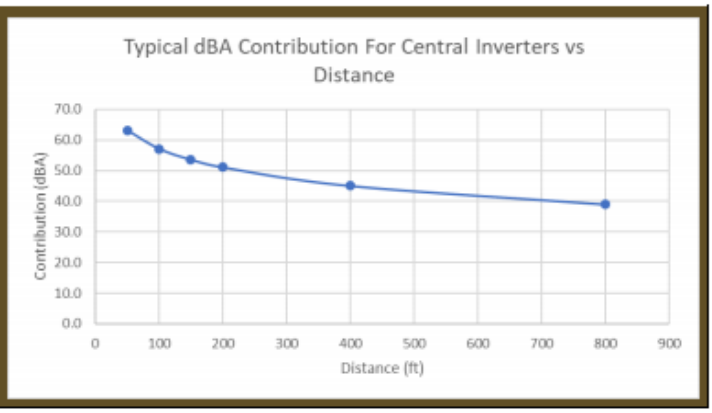
Exhibits 5-5 through 5-7 present sound levels for the central inverters, BESS HVAC units and the substation transformer at different distances, as presented in the Noise and Traffic Study.

[53] Mt Olive Creek proposes that, on Sundays, no construction activities take place starting one hour before worship activities and do not begin again until one hour after worship activities have concluded, for those churches within 1,500 feet of the Project.

[54] The Application states that either string inverters or central inverters will be used in the Project. In order to evaluate a worst-case scenario from a noise standpoint, HE assumes that central inverters will be used.

Exhibit 5-5.
Sound Level Impacts from Central Inverters, by Distance

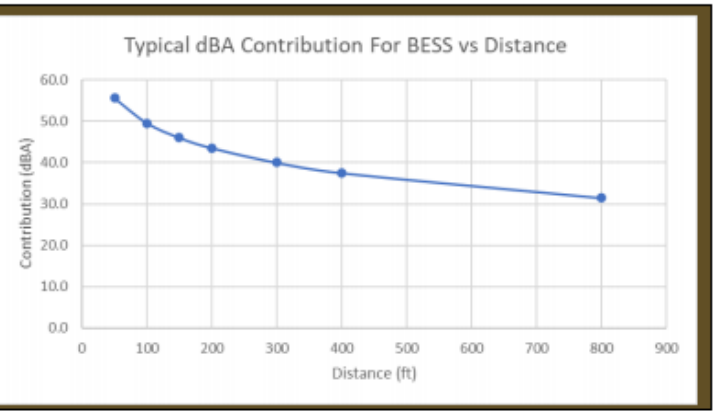
Distance (feet)	dBA
3	85.6
50	63.1
100	57.1
150	53.6
200	51.1
300	47.6
400	45.1
800	39.0



Source: Mt Olive Creek Solar, LLC, May 2021

Exhibit 5-6.
Sound Level Impacts from BESS HVAC Units, by Distance

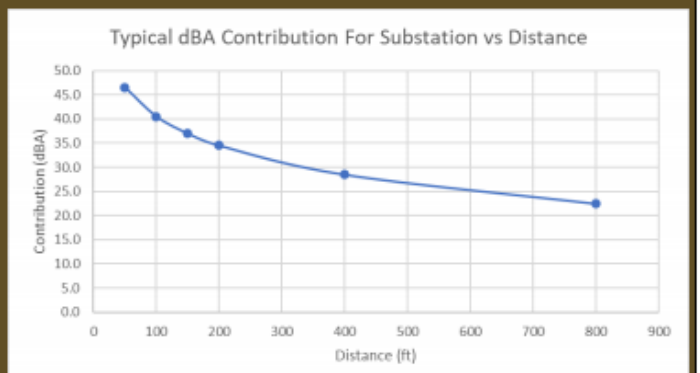
Distance (feet)	dBA
3	80.0
50	55.6
100	49.5
150	46.0
200	43.5
300	40.0
400	37.5
800	31.5



Source: Mt Olive Creek Solar, LLC, May 2021

Exhibit 5-7.
Sound Level Impacts from the Substation, by Distance

Distance (feet)	dBA
3	71.0
50	46.6
100	40.5
150	37.0
200	34.5
300	31.0
400	28.5
800	22.5



Source: Mt Olive Creek Solar, LLC, May 2021.

Calculation of cumulative noise effects. The Noise and Traffic Study describes an engineering methodology that explains how to measure the cumulative effect of sound generated by multiple sources. Those calculations are illustrated in Exhibit 5-8, below.

Exhibit 5-8.
Approach to Calculating Cumulative Noise Impacts

When the numerical difference in dBA between two sound levels is:	Add this dBA amount to the higher of the two sound levels for a total:
0	3.0
0.1 to 0.9	2.5
1.0 to 2.4	2.0
2.4 to 4.0	1.5
4.1 to 6.0	1.0
6.1 to 10.0	0.5
10.0	0.0

Source: Mt Olive Creek Solar, LLC, May 2021

Based on this approach, if the ambient sound level is 50.0 dBA, the contribution of 47.6 dBA at 300 feet (central inverter) is determined by matching the decibel difference (50.0 - 47.6 = 2.4 dBA) in the left column and connecting over to the right column. The dBA difference in this example would be 1.5 dBA, thus making the total sound level environment 51.5 dBA.

HE's evaluation of impacts. The Commonwealth of Kentucky does not have an applicable noise ordinance and neither does Russell County. As such, HE utilized the noise recommendations generated by the EPA and WHO to gauge acceptable levels of sound.

- The EPA determined that a constant sound of 70 dBA over a 24-hour period is enough to start causing permanent hearing loss for individuals, and a sound of 55 dBA outdoors is enough to cause activity interference and annoyance.[55]

- The WHO determined that daytime noise emissions greater than 55 dBA over a 16-hour period can cause serious annoyance, and noise emissions greater than 50 dBA over a 16-hour period can cause moderate annoyance. The WHO recommends limits of 45 dBA over an 8-hour period during the night.[56]

Construction noise. The Project is expected to generate noise emissions greater than 55 dBA throughout construction, but the noise will be sporadic and typically cease at the end of the day. As stated in the first response for information, the duration of specific activities will depend on contractors' schedule against overall available construction time, site conditions, weather, and other factors.

On some days, construction utilizing the pile driver will be loud and annoying for numerous residences in the area. On other days, as construction equipment migrates across the dispersed Project site, construction noise will not be loud enough to interfere with the quality of life of residents. Since these construction activities are not sustained, no hearing loss or long-term annoyance to residents is expected. HE does expect construction activities to be annoying to nearby residences in the short-term, as the pile driver can be heard from more than a mile away.

Operational noise. The operational components will be loudest during the day, as this is when the inverters, BESS HVAC units and transformer will all be operating.

The Applicant's analyses show that noise emissions from operational components are below the WHO's recommended maximum noise level of 50 dBA during the operational phase. Based on information provided by the Applicant, shown in Exhibit 5-5, at 300 feet the sound level from the central inverter will be approximately 47.6 dBA. Ten residences and a church will experience this noise, which might be somewhat annoying. Other operational components will likely cause minimal noise increases on a cumulative basis with the inverters.

Cumulative noise impacts, accounting for both ambient noise levels and Project operations, will not be relevant for those residents that are distant from the few highways in the area.

HE compares the noise emissions generated by the noise emitters to the standards set forth by the WHO. The WHO identifies 50 dBA as the level of noise that may cause annoyance. Since the Applicant's analyses show that the loudest constant noise levels experienced by the nearest resident will be less than 47.6 dBA, the Applicant concludes that the noise emissions from the Project will not be annoying to any residents.

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[55] United States Environmental Protection Agency. *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*. March 1974. https://nepis.epa.gov/Exe/ZyPDF.cgi/2000L3LN.PDF?Dockey=2000L3LN.PDF

[56] World Health Organization. *Guidelines for Community Noise*. April 1999. https://www.who.int/docstore/peh/noise/Comnoise-1.pdf

Conclusions and recommendations. Based on our review of the SAR, supplemental information provided by the Applicant, and additional research conducted by HE, we offer the following conclusions and recommendations regarding noise emissions:

- Construction will be annoying for numerous months for residents in the area. The pile driving process, which is the loudest part of the construction process, is estimated to last between 4-16 weeks. During construction, almost all the noise from the Project site will be intermittent and will not be permanently impactful to nearby residents.

- The area surrounding the Project is largely agricultural; few residents exist in the area and noise from operational components should not annoy any residents.

- The topography and natural vegetation of the area will help mitigate noise emissions that may be caused by construction or operational components of the Project.

Need for mitigation. The Applicant should consider certain mitigation to reduce noise impacts:

1. The Applicant should notify residents and businesses within 2,400 feet of the Project boundary about the construction plan, the noise potential, and the mitigation plans at least one month prior to the start of construction.

2. The Applicant should remain in contact with nearby residents to confirm that noise levels are not unduly high or annoying after the pounding and placement of the solar panel racking begins. If the noise levels are unduly high or annoying, the Applicant should mitigate those effects as needed.

3. If pile driving activity occurs within 1,500 feet of a noise sensitive receptor, the Applicant should implement a construction method that will suppress the noise generated during the pile driving process (i.e., semi-tractor and canvas method; sound blankets on fencing surrounding the Project site; or any other comparable method).

4. Pile driving activities should cease by 6pm each day, except for pile driving locations within 1,500 of noise receptors, in which case, pile driving should cease at 5pm. Since the area is largely rural, a constant pounding during evening hours has the potential to upset the natural tranquility of the area and severely annoy residents.

5. The Applicant should limit the construction activity, process, and deliveries to the hours of 8am to 6pm, Monday through Saturday. No construction work should be conducted on Sundays. These hours represent a reasonable timeframe to ensure that nearby property owners are not unduly impacted by construction activities.

Road and Rail Traffic, Fugitive Dust and Road Degradation

Traffic concerns related to the development of the Mt Olive Creek solar facility during the construction or operational phases are addressed in this section. The 12-month long construction phase would include commuting construction workers, vehicles, and equipment

on-site, plus the delivery of heavy loads of solar components, infrastructure, and other equipment. Increased traffic during operations will occur as employees travel to and from the property to monitor and maintain the site.

Railway-related issues are not a concern for the Mt Olive Creek facility. None of the related construction deliveries or operational activities will involve railroads, nor are there any railroads in the Project area.

General methods of assessment. A typical evaluation of traffic-related impacts include:

- Establishing existing traffic conditions in the area;
- Identifying primary access points that will be used by the Project;
- Estimating changes in traffic due to construction and operations; and
- Assessing the impacts of Project-related traffic on local areas. This includes determining whether additional traffic will lead to congestion, changes in service levels of existing road networks and identifying any potential degradation to existing roadways.

Summary of information provided by the Applicant. Attachment F of the SAR is the Noise and Traffic Study completed by GAI Consultants, Inc. (GAI). That document, along with supplemental information provided by the Applicant, offers information about Project-related traffic volumes (commuting workers and trucks), use of local roads, potential road impacts and dust emissions during the construction and operations phases of the Project.

Site access, vehicle parking and internal roadways. As shown previously in Exhibit 3-1 and below in Exhibit 5-10, a total of nine construction entrance points will allow access to different areas of the Project during construction; one of the entrance points on the northern side of Sano Road will likely be the primary construction entrance. According to the Applicant, the construction access points are anticipated to use either existing driveways or current field access points. During the operational period, access to the Project site will be limited to three entrances along Sano Road and one entrance on Millerfield Road (KY 76).

During the construction period, multiple staging areas and parking areas will be located across the Project site; those areas will be used for construction assembly areas, vehicle parking and material storage. The staging areas are anticipated to be gravel and the majority of that acreage will be restored to original conditions once construction is complete. A limited number of smaller areas might remain for maintenance vehicle parking.

Internal roads will be constructed within the Project site. All internal roads will be gravel. The exact locations and length of internal roadways is not known at this time, but the Project's intent is to minimize the extent of roads while being able to access all Project areas.[57]

Baseline traffic volumes and road conditions. The area surrounding the Project site is generally rural and traffic on local roads is relatively light. US 127, located about two miles east of the Project, is the most heavily used road in the area, traveled on by more than 6,600 vehicles per day. Millerfield Road (KY 76), which bisects the Project site on eastern side, experiences about 1,700 vehicles per day. All other roads in the area of the Project are more lightly traveled. Exhibit 5-9 presents data on average daily traffic volumes and peak hour traffic volumes for roads in the Project area. Following that, Exhibit 5-10 illustrates the locations of each traffic station in relation to the Project boundary.

KY 1729, KY 1545, and KY 76 are two-lane roads with marked double yellow centerlines. Local roads, including Sano Road, Mt Olive Creek Road, W. Sulpher Creek Road and Abrell Road, are narrower roads and have no lane markings. T Wethington Road functions as a shard driveway and is quite narrow at 10 feet wide.

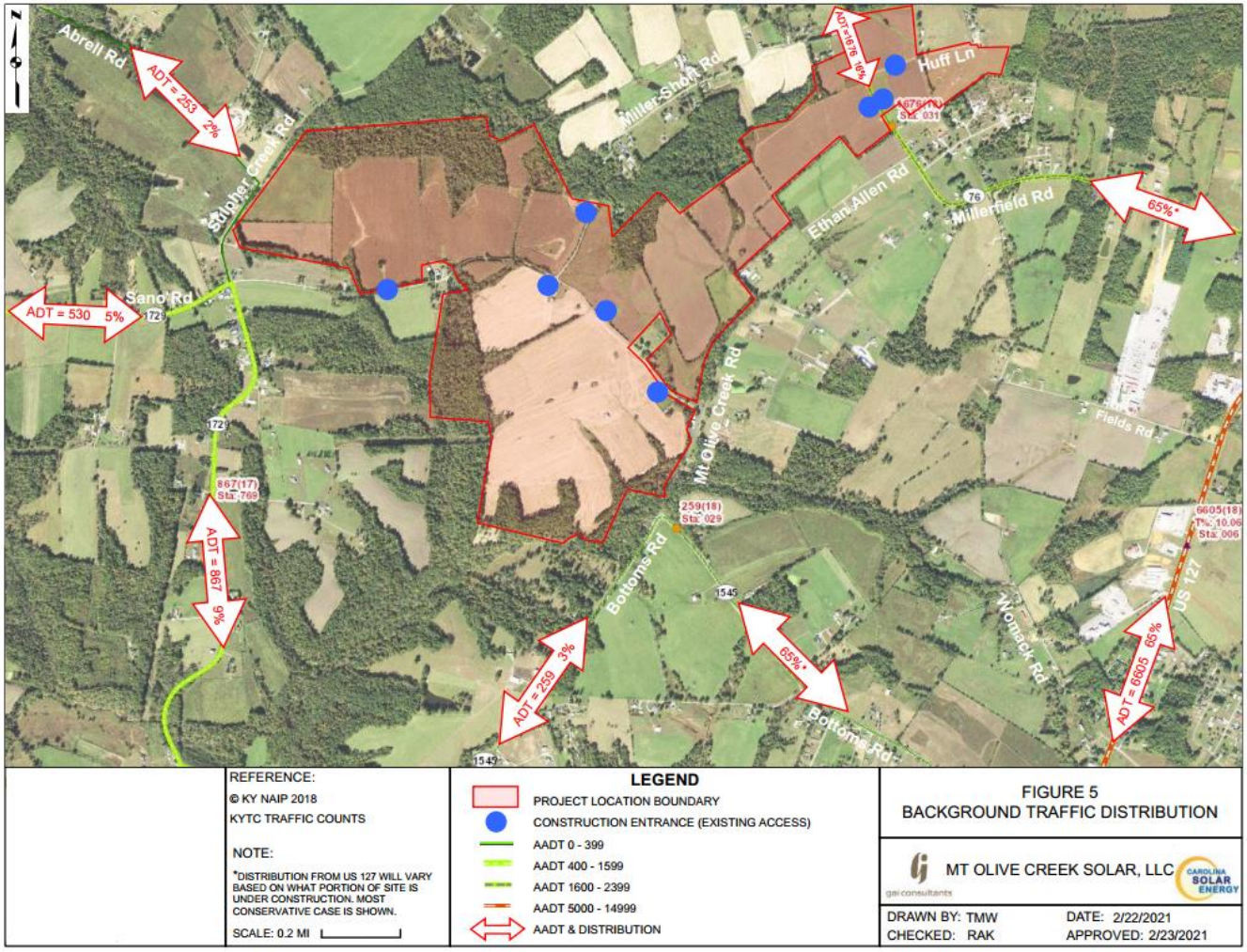
Exhibit 5-9.
Hourly and Daily Traffic Volumes for Roads Surrounding the Mt Olive Creek Project Site

Station ID	Roadway	Classification	Average Daily Traffic (ADT)	Peak Hour Traffic Volume	Year Counted
001025	KY 1729	Minor Collector	530	58	2017
104769	KY 1729	Minor Collector	867	96	2017
104029	KY 1545	Local Road	259	28	2018
104006	US 127	Principal Arterial	6,605	602	2018
104031	KY 76	Minor Collector	1,676	170	2018
001195	Abrell Road		253	26	2018

Source: Mt Olive Creek Solar, May 2021.

[57] Internal road locations and lengths will be defined during the Project design phase.

Exhibit 5-10.
Construction Site Entrances and Baseline Traffic Volumes for Roads Surrounding the Mt Olive Creek Project Site



Source: Mt Olive Creek Solar, May 2021.

Construction-related traffic volumes and routes utilized. Construction traffic includes both worker commuter vehicles and larger trucks delivering materials and supplies to the Project site. During the construction period, approximately 150 workers will be on-site on an average day, increasing to approximately 200 workers per day during the peak period.[58] That level of activity will result in about 100 worker commuter vehicles on-site on an average day and about 130 worker commuter vehicles on-site on a peak day. Additionally, up to 15 Class 9 (20-ton) trucks are anticipated to deliver components daily and approximately 11 Class 21 trucks will be required to deliver the substation transformer and the solar lulls. This information is summarized in Exhibit 5-11.

Exhibit 5-11.
Summary of Construction-Related Traffic Volumes for the Mt Olive Creek Solar Project

Construction Vehicle Type	Vehicle Trips per Day (average)	Vehicle Trips per Day (maximum)
Employee Passenger Vehicles	100	130
Class 9 Trucks		15
Class 21 Trucks	11 total trips during construction	
Water Trucks	4 to 6 on-site at all times during construction	

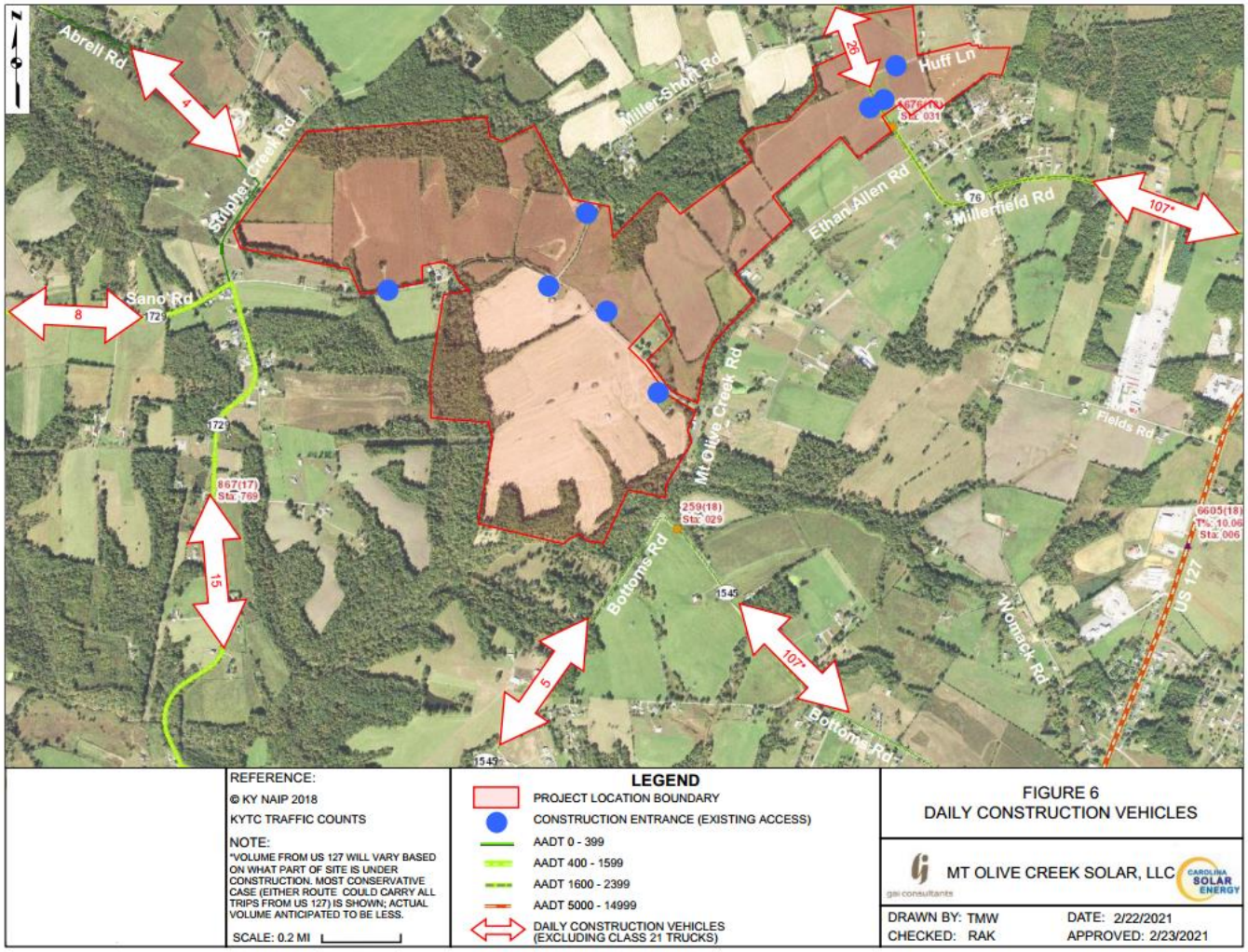
Source: Mt Olive Creek Solar, May 2021.

Exhibit 5-12 illustrates the anticipated distribution of Project construction traffic on local roads, based on estimates of construction traffic and existing traffic flows.[59]

The majority of worker commuter vehicles and trucks will access the Project site by traveling on KY 76 from US 127 or by traveling on KY 1545 from US 127 and then following Mt Olive Creek Road and Sano Road to one of the designated construction entrances. The one Class 21 truck delivering the substation transformer will take US 127 to KY 1545 to Mt Olive Creek Road.

[58] Peak construction activity will last approximately four months.
[59] The graphic represents the assumed maximum number of construction vehicles that may travel on surrounding roads on a daily basis. Actual traffic volumes on each road may be less than shown.

Exhibit 5-12.
Maximum Daily Construction Traffic Volumes on Roads Surrounding the Mt Olive Creek Project Site



Source: Mt Olive Creek Solar, May 2021.

Construction traffic management. The Applicant addresses traffic management for certain roads or for specific construction activities as follows:

- The Project and/or the construction contractor will provide adequate Manual on Uniform Traffic Control Devices compliant traffic control signs and devices during construction, including work zone signage and Kentucky Transportation Center certified flaggers to facilitate safe construction deliveries.

- Due to the narrow width, the contractor may need to conduct traffic stoppages on Sano Road, Miller-Short Road, Mt Olive Creek Road, and/or Huff Lane/T Wethington Road during construction. There may be temporary stoppages along KY Route 76 to facilitate deliveries in and out of construction access points.[60]

- The contractor will coordinate with the Kentucky Transportation Center (KTC) for conducting flagging to assist Class 21 vehicles turning to and from US Route 127.

- Disruptions to local property owners will be coordinated during construction.

Operations related traffic volumes. According to the Noise and Traffic Study, the Project will not require on-site employees for regular operation. Approximately two employees may visit the site up to a few times a month for inspections and to perform or coordinate maintenance. Additional employee or contractor trips may occur during the vegetative growing season for activities such as grass cutting. The Study concludes that with only a few occasional employee trips per month, operation of the facility is not anticipated to adversely impact area traffic.

Operational employees are expected to travel to the Project site in 4x4 pick-up trucks that weigh about 6,000 pounds. When on-site, the groundskeeper will drive a 4x4 pick-up truck with trailer and tractor, which will weigh about 20,000 pounds. Project operations would require the occasional delivery of parts, components, and cranes to assist with major repairs. That type of mobile equipment would weigh a maximum of 40,000 pounds.

Road degradation. According to the Applicant, US 127 is the only road in the vicinity of the Project on the National Truck Network and KY 1545 and KY 76 are within 15 miles of a National Truck Network route. Use of these roads will be evaluated by the contractor through the Encroachment Permit process, with the preferred route selected and agreements for monitoring or repair included. The Project will reimburse or fix any road damage they cause when specified and documented through the Encroachment Permitting process.

The construction contractor will document roadway conditions with applicable transportation permits obtained from State and County road authorities before construction commences and be responsible for restoring impacted roadway to pre-construction conditions as required through the permitting process.

[60] Occasional traffic stoppages are expected to be less than 15 minutes.

Fugitive dust. According to the Applicant, impacts related to fugitive dust are anticipated to be "minor in nature due to the large size of the site and the low-density of housing and rural character of the area." Reasonably available control measures will be used to mitigate fugitive dust emissions. The chosen contractor will develop and monitor a dust control plan to include the following best practices:

- Identify and monitor each day's expected weather conditions, including precipitation and wind speed and direction, to anticipate daily dust control measures. Disturbance areas will be minimized to the maximum extent feasible. Open piles will be covered.

- Construct and upgrade internal roads and driveways with compacted gravel when needed. Vehicles will be required to travel slowly along site roads (typically 10 miles per hour [mph], but up to 25 mph as long as visible dust emissions are not created). Speed limits will be posted and enforced.

- Construction vehicles such as opened bodied trucks will be covered while in motion, and soil loads shall be kept below the freeboard of the trucks.

- Water will be applied in accordance with industry best practices to control dust along site roadways and clean equipment and vehicles when needed. Under the Kentucky Pollutant Discharge Elimination System, water used for dust control during facility construction is authorized as a non-stormwater discharge activity.

- The Applicant has also pledged to build internal roads with compacted gravel, which will help mitigate the dust.

HE's evaluation of impacts. HE conducted the following additional research and analyses related to traffic, road degradation and fugitive dust.

Baseline traffic volumes. The Applicant supplied traffic count data for all available traffic stations in the Project vicinity, as previously shown in Exhibit 5-9. No additional information about baseline traffic in the Project area was collected by HE for the evaluation of traffic impacts.

Construction related traffic impacts. To estimate traffic impacts, HE assumed (100 commuter vehicles + 7 delivery trucks) for the average daily construction traffic and 145 (130 commuter vehicles + 15 delivery trucks) for the peak daily construction traffic. Exhibit 5-12 indicates where construction traffic will likely originate. Most of the traffic will be coming from KY 1545, US 127, and KY 76. A much smaller percentage of construction traffic will be entering the site from KY 1729 and Abrell Road. Using this graphic, HE determined that 84 percent of daily construction traffic would be split equally between KY 1545, US 127, and KY 76; 16 percent of daily construction traffic will be split equally between KY 1729 and Abrell Road.

Using this information, HE analyzed the increase in traffic in the surrounding area from Project construction, as shown in Exhibit 5-13.

Exhibit 5-13.
Construction Traffic Impacts in the Mt. Olive Project Vicinity

Station ID	Roadway	Classification	Average Daily Traffic (ADT)	Peak Hour Traffic Volume	Year Counted	% Change in Activity (Avg)	% Change in Activity (Peak)
001025	KY 1729	Minor Collector	530	58	2017	1.01%	1.01%
104769	KY 1729	Minor Collector	867	96	2017	1.00%	1.01%
104029	KY 1545	Local Road	259	28	2018	1.12%	1.16%
104006	US 127	Principal Arterial	6,605	602	2018	1.00%	1.01%
104031	KY 76	Minor Collector	1,676	170	2018	1.02%	1.02%
001195	Abrell Road		253	26	2018	1.03%	1.05%

Source: Mt Olive Creek Solar, May 2021; Harvey Economics, August 2021.

HE's calculations in Exhibit 5-13 show construction traffic is not expected to increase by much. Both KY 1545 and Abrell Road are expected to see the most change as those roads have less traffic in normal times.

An issue to note during construction is the narrowness of the local roads in this area and their ability to support construction vehicles, particularly trucks. The roads providing access to the site itself (Sano Road, Mt Olive Creek Road, W. Sulpher Creek Road, Abrell Road, Miller Short Road, and T Wethington Road) are only able to fit 1.5 standard sized cars on the road at the same location and often require vehicles to pull half-off the road to avoid oncoming traffic.[61] That situation has the potential to inconvenience numerous residents and agricultural producers in the area; in particular, residents of the neighborhood off T Wethington Road and KY 76 may have difficulty accessing their residences, depending on the routes of freight trucks. Some permits issued by the KTC require a lead vehicle in front of freight trucks; it is HE's conclusion that oncoming traffic meeting these lead vehicles will likely need to turn around or into private driveways to avoid oncoming freight trucks.

Another problematic issue during construction is that Bottoms Road has a sharp hairpin curve that could be difficult, if not impossible, for freight trucks to navigate. The Applicant will need to find out if freight trucks will be able to navigate without road expansion and/or tree removal.

An additional concern is that there is no left turn lane at the KY Route 76 intersection with US 127. There are full-width paved shoulders that can be used for through-traffic to pass stopped left turning vehicles, which reduces potential conflicts from additional traffic. This could pose an issue, as this is not legal for cars to pass on the shoulder while trucks and construction traffic are attempting to turn left at this intersection. Ultimately, KTC will determine whether trucks should turn left from US 127 to KY 1545 or KY 76 as either can be used as to access the project. In addition, KTC will decide if Project-specific upgrades are needed, such as widening the shoulders.

Operations related traffic impacts. HE does not expect operations-related vehicles to impact commuters or residents in the vicinity of the Project. Only two employees are expected to visit the site up to a few times a month, and maintenance employees traveling to the site will

[61] Exhibits B-5, B-7, B-14, B-15, B-17 and B-20 in Appendix B provide visual examples of the narrow roads.

be performing vegetative maintenance and should not contribute a noticeable impact to traffic conditions.

Road degradation. The Applicant is not anticipating construction activities to cause noticeable road degradation. The Applicant has pledged to fix road damage caused from Project activities when specified and documented through the Encroachment Permitting process.

The KTC rates US 127 at 80,000 pounds, which means this road is designed to carry traffic so long as the combined weight of vehicles plus loads does not exceed 80,000 pounds. US 127 is the "main" road that is expected to receive the largest increase in construction-related traffic. All the other local roads (KY 1729, KY 1545, KY 76, Sano Road, Mt Olive Creek Road, W. Sulpher Creek Road and Abrell Road) are rated at 44,000 pounds. The Applicant has indicated that numerous shipments (of solar panels, racking systems, etc.) will be 65,000 pounds or more. Currently, these vehicles will not be allowed to travel on the above mentioned local roads without special permits. The Applicant will need to coordinate with the KTC and the Russell County Road Department (RCRD) to gain approval of the routes proposed by the Applicant and receive permission to haul shipments heavier than the legal limit.

Fugitive dust. Fugitive dust should not be an issue given the Applicant's proposed best practices for construction and operational activities.

Conclusions and recommendations. Based on our review of the SAR and subsequent information provided by the Applicant, as well as other secondary research conducted regarding roads and dust, HE offers the following conclusions regarding traffic, fugitive dust, and road and bridge degradation:

- Traffic congestion resulting from construction activities will likely be noticeable along KY 1545 and Abrell Road.

- Additional congestion may occur if freight trucks travel along these roads and other roads surrounding the Project because they are narrow and not able to handle two-way traffic. Besides US 127 and KY 76, the roads in this area are narrow, and vehicles sometimes need to pull half-off the road to pass oncoming traffic.

- Road degradation may occur during construction. The delivery of the main transformer is heavy enough to potentially cause degradation for every road utilized by the Project.

- Fugitive dust should not be an issue given the Applicant's proposed best practices for construction and operational activities.

Need for mitigation. The Applicant should consider certain mitigation to reduce impacts associated with traffic and dust:

1. The Applicant should work with the Kentucky road authorities and the Russell County Road Department (RCRD) to perform road surveys before and after construction activities on all roads to be used by construction vehicles.

2. The Applicant will consult with the Kentucky Transportation Cabinet (KTC) regarding truck and other construction traffic and obtain necessary permits from the KTC.

3. The Applicant will consult with the RCRD regarding truck and other construction traffic and obtain necessary permits from the RCRD.

4. The Applicant should develop special plans and obtain necessary permits before bringing the very heavy loads, especially the substation transformer, onto State or County roads.

5. The Applicant will comply with any road use agreement executed with the RCRD. Such an agreement might include special considerations for overweight loads, routes utilized by heavy trucks, road weight limits and bridge weight limits.

6. The Applicant should fix or fully compensate the appropriate transportation authorities for any damage or degradation to roads that it causes or to which it materially contributes to, regardless of its status as a KY Route or local road.

7. The Applicant should develop and follow a traffic management plan to minimize the impacts of any traffic increases and keep traffic and people safe.

8. The Applicant will comply with all laws and regulations regarding the use of roadways.

9. The Applicant will develop a fugitive dust control plan and follow best practices to suppress fugitive dust emissions. The Applicant will monitor dust emissions occurring during construction or operations and adjust activities, if necessary, to minimize dust emissions.

Economic Impacts

Evaluation of the potential economic effects of the Mt Olive Creek Project is based on knowledge of the Project's construction timeline and activities and the solar facility's long-term operational activities. Project employment needs, local expenditures (labor, materials/supplies, equipment) and payment of applicable taxes (sales tax, lodging tax, property tax) and other fees are considered over the short- and long-term and placed within the context of existing demographic and economic conditions.

General methods of assessment. Both the construction and operational phases should be evaluated to include:

- Detailed understanding of the Project: specific activities to occur, the timeline of those activities, geographic extent of Project effects;

- Quantification of direct effects: number of employees and range of wage levels, materials purchases, supplies and equipment and associated sales tax payments, other

tax payments including property taxes. Determining the portion of purchases to occur in the local area or within the Commonwealth is key;

- Estimation of total effects: use of region and industry specific multipliers to estimate indirect and induced effects to calculate total effects such as employment, income and overall economic activity;

- Other social or economic benefits, including potential non-monetary benefits, to the local community or surrounding area; and

- Potential curtailments or impacts to other industries.

Summary of information provided by the Applicant. The Mt Olive Creek Application included an Economic Report (Attachment I of the SAR) prepared by consulting economist Dr. Paul Coomes, titled Economic and fiscal impact of the Mt. Olive Creek solar energy project, which included a discussion and explanation of the Project's economic benefits. Excerpts from the Applicant's economic report and supplemental materials provided to HE included the following:

Capital investment: Total Project investment is anticipated to be approximately $90 to $120 million (M). Although most of the required infrastructure, materials and equipment will be purchased from outside Kentucky, Mt Olive Creek will procure some supplies and equipment from local suppliers. Local purchase might include items such as gravel, concrete and fencing. Including labor costs and materials purchases, up to $18.3M of construction-related spending is estimated to occur within Russell County.

Construction employment and earnings: Construction of the facility is anticipated to require up to 150 workers over an eight to 12 month period, with a payroll of $7.5 million (these are direct effects). The Economic Report states that "it is not possible to know precisely the ultimate number of construction-related jobs, since many subcontractors will be involved, each with their own decisions to make about staffing". Mt Olive Creek intends to hire as many Russell County residents as possible; however, the number of local hires is unknown at this time and will be determined by the amount of qualified local job applicants. Experienced solar electricity specialists may need to be brought in from outside the region; opportunities for local work might include site preparation, concrete installment, landscaping and fencing.

Hourly and annual wages for construction workers will vary depending on task and skill level. The Economic Report notes that construction managers are likely to earn over $80,000 per year, heavy equipment operators around $50,000, installers around $45,000, electricians around $53,000 and fencers around $30,000. The Economic Report assumes an average annual pay of about $50,000 per construction job and provides a comparison to the average annual pay for all jobs in Russell County in 2019 of $33,401.

Accounting for the circulation of construction-related monies throughout the local area, the Project is expected to generate a total of about 199 new jobs in the County, with a total payroll of about $9.7 million, as shown in Exhibit 5-14.

Exhibit 5-14.
Direct and Total Employment and Earnings Benefits of the Mt Olive Creek Project, Construction Phase

	Construction Phase	
	Employment	Earnings
Direct	150	$7.5 M
Total	199	$9.7 M

Notes: (1) Employment is measured in number of jobs, which includes full and part-time workers.
(2) Total employment and earnings benefits include direct, indirect, and induced effects.
(3) The portion of construction labor hired from within Russell County is unknown.

Source: Mt Olive Creek Solar, LLC, May 2021.

Operational employment, earnings and expenditures: Project operations will require approximately two permanent positions for ongoing operations and maintenance of the facility; salary levels for those employees are confidential. Supplies purchased during the operational phase of the Project would be mainly related to vegetation management, Project road maintenance and janitorial services. Goods might include food, fuel, office supplies, tools and small hardware parts. Other services might be related to trash removal and panel cleaning, if necessary. The amount of money spent on goods and services during operations will depend on the availability of desired items in the local area.

Payment in Lieu of Taxes (PILOT) Agreement: An Industrial Revenue Bond (IRB) and Payment in Lieu of Taxes (PILOT) agreement was approved by the Russell County Fiscal Court in April 2021. An IRB is a type of economic development tool used in Kentucky in which no borrowing occurs, and no money is exchanged, but allows the developing entity to ensure that local taxes are paid, while offsetting some state level taxes. The PILOT agreement with Russell County is based on payments of $1,000 per MW per year for the first 20 years of operation ($60,000 annually) and $350 per MW per year for the following 20 years ($21,000 annually), as provided in Exhibit 5-15.

Exhibit 5-15.
Total PILOT Revenues Generated by the Mt Olive Creek Project, 40-Year Project Life

Project Mwac	60
Payment Per Year, Years 1 - 20	$60,000
Total Payments, Years 1 - 20	$1,200,000
Payment Per Year, Years 21 - 40	$21,000
Total Payments, Years 21 - 40	$420,000
Total Payments, 40 Years	$1,620,000

Source: Mt Olive Creek Solar, LLC, May 2021.

PILOT payments will be distributed to the following eight Russell County entities: Ambulance District, Extension Services, Health Department, Hospital, Library, Soil Conservation, the School District, and the County. Annual PILOT payments paid over the lifetime of the Project would be distributed to those entities as shown in Exhibit 5-16.

Exhibit 5-16.
Annual PILOT Payments, by Jurisdiction, for the Mt Olive Creek Project, 40-Year Project Life

	Russell County Tax District								
	Ambulance	Extension	Health Depart.	Hospital	Library	Soil Conserv.	School District	Russell County	Total
Years 1-20	$4,584	$2,598	$3,078	$4,518	$4,308	$618	$35,712	$4,584	$60,000
Years 21-40	$1,604	$909	$1,077	$1,581	$1,508	$216	$12,499	$1,604	$21,000

Note: Based on 2020 tax rates.

Source: Mt Olive Creek Solar, LLC, May and August 2021.

The PILOT agreement includes the stipulation that "if the allocation to the School District results in the School District receiving an amount less than the amount of property taxes it would have received from the Company if the bonds had not been issued, the Company will make an additional payment to the School District in the amount of such shortfall." In response to HE's inquiries, the Applicant provided data indicating that in 2019, a total of $2,000 in property taxes was paid on all parcels included in the Project (primarily farmland), with the School District receiving approximately $1,200 of that total. Given the estimates of PILOT revenues going to the School District provided in Exhibit 5-16 above, it appears this will not be an issue.

HE's evaluation of impacts. An economic impact analysis can be an opportunity to identify the monetary and other benefits provided by Project construction and operational activities. A meaningful discussion of the monetary and other benefits must provide some quantification of said benefits, along with additional context to determine the magnitude of those benefits:

- For most solar facilities, the purchase of materials, supplies and equipment makes up a large portion of total project construction costs. A small portion of capital expenditures would occur in Russell County, including the majority of labor costs and some purchases of local supplies. The majority of the Project's capital expenditures are anticipated to occur out-of-state, limiting the economic benefits to the Commonwealth. Therefore, the economic benefits of construction focus mainly on labor activities.

- It is also important to note that direct construction jobs, as well as associated indirect and induced jobs, will be temporary, resulting from the 12-month construction period.

Additionally, the portion of construction period jobs realized for Russell County residents will depend on the number of available and qualified workers in the area.

- Annual operations and maintenance expenditures for the Project were not provided to HE. HE assumes that those expenditures would be relatively minimal on an annual basis and that the majority of economic benefits generated during operations would result from employee earnings and PILOT payments.

- PILOT payments distributed to local entities within Russell County will provide additional revenue for these agencies, above what they would have realized without the Project; however, those payments will generally amount to a small percentage of total tax revenues for any individual entity.

- Landowner leases are not discussed in the economic analysis. Those landowners will realize direct benefits from the Project via lease payments.

Conclusions and recommendations. Construction and operation of the Mt Olive Creek Solar Facility will provide limited economic benefits to the region and to the Commonwealth. Overall, the Mt Olive Creek Project will result in measurable, but temporary, positive economic effects to the region during the construction phase. Construction activity will generate regional employment and income opportunities; those effects will be temporary, but local hires will increase employment and incomes to an area that needs it. Most construction purchases will be made outside of Kentucky.

Economic benefits during operations will be confined mostly to PILOT payments, although these will be relatively minor. Operational employment will be minimal, and purchases of materials or supplies will be very small on an annual basis. Total PILOT payments made to Russell County taxing authorities over the 40-year life of the Project will amount to $1.62M. Those payments will generally amount to a small percentage of total tax revenues for any one entity.

Need for mitigation. Socioeconomic impacts of the Mt Olive Creek solar facility represent a positive contribution to the region. However, the economic benefits to the local area are small and largely temporary. The Applicant should attempt to hire local workers and contractors to the extent they are qualified to perform the construction and operations work.

Decommissioning Activities

Decommissioning is the process of safely closing the solar facility to retire it from service at the end of its useful life, and subsequently returning the land to its original condition. This might include removal of solar panels and all associated facilities, and restoration of the property to pre-Project conditions. Although not specifically addressed in the statutes, the Siting Board requested that HE discuss the potential impacts associated with decommissioning activities.

General methods of assessment. The types of impacts likely to result from decommissioning might be similar in nature to those experienced during construction. For

example, workers would need to commute to the site daily, trucks would be required to haul equipment away using local roads, and noise may be generated by decommissioning activity. Therefore, the methods of assessing decommissioning impacts would be similar to those employed to evaluate the construction phase effects.

Removal and disposal of the project components, as well as land restoration activities, should be addressed in this assessment.

Summary of information provided by the Applicant. According to the Applicant, the Mt Olive Creek solar facility would have an expected useful life of approximately 40 years.

The discussion of mitigation measures included in the SAR states the following:

> "Mt Olive Creek, its successors or assigns, shall decommission the entire site if the Project ceases producing electricity for a period of more than twelve (12) months. Decommissioning shall involve the removal of all solar panels, racking, and equipment including concrete pads and trenched electrical wiring. Fencing and internal access roads shall also be removed unless the landowner states in writing that they prefer fencing and internal roads to remain in place."

Supplemental materials provided by the Applicant note that the Project site will be substantially returned to pre-existing conditions, with the exception of changes in grade that may be necessary for erosion and sediment control measures.

Additionally, specific commitments regarding land restoration are included in individual lease agreements with participating landowners. Those commitments are consistent with the proposed mitigation measures described above, including removal of fencing, roads, solar panels and mountings, and electrical and communications infrastructure. The lease agreements allow for landowners to request that specific infrastructure remain on the property after the termination of the lease. The Applicant has stated that land restoration activities will be completed in a manner that does not adversely affect the use of the property for farming purposes.

The SAR also includes the following information as part of the potential for Project retrofit:

- If Mt Olive Creek proposes to retrofit the current proposed facility, it shall demonstrate to the Siting Board that the retrofit facility will not result in a material change in the pattern or magnitude of impacts compared to the original project. Otherwise, a new Site Assessment Report will be submitted for Siting Board review.

- Mt Olive Creek shall also prepare a new Site Assessment Report for Siting Board review if Mt Olive Creek intends to retire the currently proposed facility and employ a different technology.

Decommissioning Plan. The Applicant has prepared a written decommissioning plan, which describes the removal of all Project components, including the modules, racking system, inverters, transformers, concrete pads, all electrical equipment, roads, parking areas, fencing

and other miscellaneous components.[62] Those components will be sold, recycled, or disposed of according to applicable laws and regulations. Site restoration activities will include site clean-up, re-grading, restoration of surface drainage, filling of trenches, tilling of compacted ground, and topsoil spreading and re-seeding.

About 20 years into the operational period, Mt Olive Creek will prepare an initial Decommissioning Cost Estimate, incorporating an estimate of the gross cost of decommissioning, a 10 percent contingency factor and an estimated salvage credit (estimated salvage value reduced by 10 percent).[63] Mt Olive Creek will provide an amount equal to the Decommissioning Cost Estimate as a Decommissioning Security. The Primary Beneficiaries of the Decommissioning Security will be the landowners of parcels within the Project site; the Secondary Beneficiary will be Russell County. Additional detail as to the specific financial and legal terms of the Security are provided in the Decommissioning Plan.

Decommissioning activities and requirements apply to all properties within the Project site, including both leased properties and purchased properties.

HE's evaluation of impacts. The impacts of decommissioning activities are likely to be somewhat smaller than those of construction. Fewer workers may be able to complete facility removal activities in a shorter time period, as compared to construction activities. Additionally, decommissioning work may not require the same level of experience or skill sets as project construction, resulting in the employment of more general laborers at lower wages. Therefore, the benefits to local employment and income during decommissioning would be somewhat less than those described for the construction phase.

Conclusions and recommendations. HE believes that decommissioning the facility and returning the site to its original condition can be accomplished if all the components will be removed. After reclamation, this would return the land to its pre-Project productive use and property value, and eliminate long term Project-related negative impacts, compared with simply shutting the solar facility. This process will also have a modest and temporary positive economic stimulus to the region.

Need for mitigation. The Applicant's Decommissioning Plan describes the decommissioning process, approach to cost estimation and the Decommissioning Security for landowners and the County. Additionally, commitments regarding land restoration are included in individual lease agreements with participating landowners. To ensure that those decommissioning commitments are met, we recommend the following:

1. The Applicant, its successors, or assigns shall decommission the entire site if the Project ceases producing electricity for a period of more than twelve (12) months. Decommissioning shall involve the removal of all solar panels, racking, and equipment including concrete pads and trenched electrical wiring. Fencing and internal access

[62] Landowners may request that fencing or access roads remain in place. Landowners may also consent to release the Project from certain or all restoration activities if the landowner deems such improvements beneficial to the land or to potential future uses.

[63] The Decommissioning Cost Estimate will be updated every five years after the initial estimate is prepared.

roads shall also be removed unless the landowner states in writing that they prefer fencing and internal roads to remain in place.

2. The Applicant will abide by its developed Decommissioning Plan, which commits to removing all facility components from the Project site and Russell County at the cessation of operations, with the exception of specific landowner requests for fencing or internal roadways to remain in place.

3. Any change to the Decommissioning Plan will be submitted to the Siting Board. The Siting Board will determine whether any changes in decommissioning activities are acceptable.

4. The Applicant's Decommissioning Plan, including all decommissioning activities, conditions and requirements, shall apply to all properties within the Project site, including both leased properties and purchased properties.

5. The Applicant will provide Decommissioning Security equal to the amount necessary to complete site decommissioning activities, naming Russell County as the Secondary Beneficiary of that Security.

6. The Decommissioning Cost Estimate should be updated every five years at the expense of the Applicant and the amount of the Decommissioning Security should be adjusted at the same time.

7. If the Applicant proposes to retrofit the current proposed facility, it shall demonstrate to the Siting Board that the retrofit facility will not result in a material change in the pattern or magnitude of impacts compared to the original project. Otherwise, a new Site Assessment Report will be submitted for Siting Board review.

8. The Applicant shall also prepare a new Site Assessment Report for Siting Board review if the Applicant intends to retire the currently proposed facility and employ a different technology.

Public Outreach and Communication

The Application details the public involvement activities undertaken by Mt Olive Creek Solar, LLC staff. Those activities included the following events to notify and inform Russell County officials and residents about the Project:

- Outreach to the Russell County Judge Executive and the Russell County Fiscal Court:
    - Interactions with Gary Robertson, the Russell County Judge Executive, and the Russell County Fiscal Court began in Fall 2019 and continued through Spring 2021.
    - Outreach to the Russell County Fiscal Court included conversations with the Magistrates for Districts #1 - #5 and a presentation to the Court on April 12, 2021.

- Outreach to surrounding landowners and others:

    - The Applicant reached out to and met with some of the landowners who own land adjacent to the Project site. This outreach occurred over a period of time, starting in 2019 and continuing through most of 2020. Some of the outreach was proactive, and some was in response to neighbors who had questions or concerns.

    - Conversations with surrounding landowners, including residential property owners and the Mt Olive Missionary Baptist Church.

    - Other outreach included conversations with other Russell County residents and with local agencies, including the Lake Cumberland Area Development District.

- Public meetings:

    - An initial public meeting (virtual with an in-person screening option) was held via Zoom on August 6, 2020. A notice announcing the public meeting was printed in the Russell County Times Journal on July 23, 2020. The Project also mailed letters, dated July 21, 2020, to all adjoining landowners notifying them of the virtual meeting, and providing instructions on how to reserve a spot at the physical screening of the public meeting.

    - Following the initial public meeting, one additional parcel of land was added to the Project layout. A second public meeting was held on October 8, 2020, to notify the public about the addition of the new parcel into the site layout. A notice announcing the second public meeting was printed in the Russell County Times Journal on September 24, 2020. The second public meeting was virtual without an in-person component.

In addition to outreach within Russell County, the Applicant has also participated in or led other meetings or workshops in the region or with the Kentucky legislature regarding solar projects.

Supplemental information provided by the Applicant notes that four attendees unaffiliated with the Project attended the first public meeting and none attended the second public meeting. Concerns brought up during discussions with adjoining landowners included visual impacts and property values. According to the Applicant, the specific concerns of those landowners have been addressed and resolved, to all parties' satisfaction, through a variety of measures.

As part of HE's site visit to the Project area, we met with the Russell County Judge Executive, Gary Robertson. Mr. Robertson indicated that local residents were generally unaware of the project, except for participating landowners who were naturally supportive. He mentioned that property value impacts are a concern for some non-participating landowners near the Project boundaries. Project-related tax revenues are also a concern.

Need for mitigation. Because of the limited attendance at local public meetings and the general sense of local unawareness of the Project, it is suggested that the Applicant pursue additional public engagement within Russell County.

Complaint Resolution

In response to HE inquiries regarding how individual complaints would be addressed during construction and operations, the Applicant states the following:

- Mt Olive Creek will have full-time representation on site during construction via a Construction Monitoring team, led by the Construction Monitoring Manager (CMM).

- Any issues or complaints can be brought to the attention of the CMM. The CMM may be able to deal with the issue/concern themselves immediately. If the complaint can't be addressed then and there, the CMM will report back to the Project Manager who will pull in the appropriate party/parties (Development, Legal, PR, etc.) depending on the specifics of the issue.

Need for mitigation. The Applicant's approach to resolving complaints may address issues that arise during construction, if concerned citizens are aware that a CMM is on-site and that complaints can be filed at that location. However, a more robust approach to resolving Project-related complaints might also consider the following measures:

1. The Applicant should develop a Complaint Resolution Program that describes the process for filing complaints during construction and during operations; how the complaint will be addressed; the timeframe in which a complainant can expect a response; and an explanation of how resolution will be determined if the complainant is not satisfied with the response from the Applicant.

2. The Applicant should submit to the Siting Board, annually, a status report associated with the Complaint Resolution Program, providing the individual complaints, how the Applicant addressed those complaints and the ultimate resolution of those complaints, identifying whether or not the resolution was to the complainant's satisfaction.

SECTION 6
Recommended Mitigation

This section identifies actions the Applicant can take to mitigate potential negative impacts on certain regional resources. Other regulatory processes will determine the need for particular actions; these are only noted here, and Harvey Economics makes no recommendation as to their merit. Beyond those actions, HE recommends a list of mitigation actions for Siting Board and Applicant consideration.

Regulatory Actions and Mitigation Outside Siting Board Jurisdiction

The Siting Board should be aware of the following permitting and regulatory actions that will require Applicant compliance and possible mitigation efforts. No action on these actions is required by the Siting Board since these are outside the Siting Board's jurisdiction. The SAR includes the following statements:

- The Project will obtain a Kentucky Department of Environmental Protection Stormwater Construction General Permit (Permit) from the Kentucky Division of Water (DOW) for this construction project because it disturbs one or more acres of land in compliance with the National Pollutant Discharge Elimination System of the Clean Water Act (CWA).[64] The Kentucky Pollution Discharge Elimination System (KPDES) permit (KPDES No: KYR100000) is a General Permit for Stormwater Discharges Associated with Construction Activity.

- An Approved Jurisdictional Determination (AJD) has been requested through the U.S. Army Corps of Engineers (USACE) - Louisville District. The AJD process will include the USACE Louisville District determining which aquatic features are considered federally jurisdictional under the CWA. If Project design proposes to impact aquatic features, features that are deemed federally jurisdictional, a Section 404 of the CWA permit will be needed from the USACE.

- Depending on Project impacts and type of Section 404 permit necessary, a Section 401 Water Quality Certification may be needed. An applicant seeking a Section 401 Water Quality Certification must submit an Application for Permit to Construct Across or Along a Stream and/or Water Quality Certification to the Kentucky DOW. The Kentucky DOW reviews projects jointly for potential impacts to water and floodplains.

Mt Olive Creek Solar, LLC completed an Environmental Site Assessment (ESA) Phase 1 for the site. The ESA Phase 1 report includes the following recommendations related to existing water wells onsite and the potential for asbestos in existing structures on the property:

[64] The term "Kentucky DOW" refers to the Kentucky Division of Water.

1. Properly abandon groundwater supply wells in accordance with Kentucky Division of Water protocols if they will not be used in the future.
2. Perform an asbestos survey prior to demolishing any onsite structures.

The Applicant has not addressed those recommendations or committed to undertaking those actions in any of their submitted materials.

Mitigation for Siting Board and Applicant Consideration

The following mitigation measures are based upon: (1) Applicant commitments set forth in the SAR; (2) measures discussed with the Applicant in subsequent information exchanges or discussions; and (3) additional mitigation steps HE believes will reduce or eliminate negative Project impacts and are reasonable for the Applicant to undertake.

In performing this comprehensive review of the Mt Olive Creek SAR, HE has gained an understanding of the Project, the location, the construction and operational activities, the Applicant's intentions, and the Project's impacts. Our recommended mitigation actions are intended to reduce or eliminate potential adverse impacts.

A. Site development plan:

1. A final site layout plan should be submitted to the Siting Board upon completion of the final site design. Deviations from the preliminary site layout plan, which formed the basis for HE's review, should be clearly indicated on the revised graphic. Those changes would include, but are not limited to, location of solar panels, inverters, transformer, the warehouse, substation, operations and maintenance building, access points or other Project facilities or infrastructure.

2. Any change in Project boundaries from the information which formed this evaluation should be submitted to the Siting Board for review.

3. The Siting Board will determine if any deviation in the boundaries or site development plan is likely to create a materially different pattern or magnitude of impacts. If not, no further action is required, but if yes, the Applicant will support the Siting Board's effort to revise its assessment of impacts and mitigation requirements.

4. A final Project-specific construction schedule, including revised estimates of on-site workers and commuter vehicle traffic, should be submitted to the Siting Board. Deviations from the preliminary construction schedule should be clearly indicated.

5. The Siting Board will determine if any deviation to the construction schedule or workforce estimates is likely to create a materially different pattern or magnitude of impacts. If not, no further action is required. If yes, the Applicant will support the Siting Board's effort to revise its assessment of impacts and mitigation requirements.

6. The Applicant or its contractor will control access to the site during construction and operation. All construction entrances will be gated and locked when not in use.

7. The Applicant's access control strategy should also include appropriate signage to warn potential trespassers. The Applicant must ensure that all site entrances and boundaries have adequate signage, particularly in locations visible to the public, local residents and business owners.

8. According to National Electrical Safety Code regulations, the security fence must be installed prior to any electrical installation work. The substation will have its own separate security fences installed.

9. The cemetery located within the Project boundary (north of Sano Road on the western side of the Project site) represents a potential conflict with one of the proposed construction access points, potential construction staging areas and Project infrastructure. The Applicant must inform the owner and living relatives of those interred of the proximate construction and facility plans and secure written approval of their recognition and acceptance of this plan.

B. Compatibility with scenic surroundings:

1. The Applicant will not remove any existing vegetation unless the existing vegetation needs to be removed for placement of solar panels.

2. Existing vegetation between the solar arrays and the residences will be left in place, to the extent practicable, to help screen the Project and reduce visual impacts from the nearby homes and roadways.

3. The Applicant will work with homeowners and business owners to address concerns related to the visual impact of the Project on its neighbors.

4. The Applicant should provide a visual buffer between Project infrastructure and residences or other occupied structures with a line of sight to the facility to the satisfaction of the affected property owners. If vegetation is used, plantings should reach eight feet high within four years. To the extent that an affected property owner indicates to the Applicant that such a buffer is not necessary, Mt Olive Creek will obtain that property owner's written consent and submit such consent in writing to the Siting Board.

5. The Applicant will follow through on its commitment to providing vegetative buffers at the locations indicated on the Preliminary Project Layout map included in the Application materials. If the final site layout plan deviates from the preliminary plan with regard to the locations of solar panels, inverters, substation or other Project infrastructure, an additional evaluation of the need for vegetative buffers will be conducted and reviewed by the Siting Board.

6. The Applicant will develop a vegetation management plan that describes the approach and procedures for maintaining or replacing vegetative buffers as needed.

7. The cemetery located within the Project boundary along Sano Road represents a potential conflict with regard to scenic compatibility. The Applicant must inform the owner and living relatives of those interred of the proximate construction and facility plans and secure written approval of their recognition and acceptance of this plan.

8. The Applicant will cultivate at least two acres of native pollinator-friendly species on-site.

9. The Applicant has committed to using anti-glare panels and operating the panels in such a way that glare from the panels is minimized or eliminated. The Applicant will immediately adjust solar panel operations upon any complaint from those living, working or traveling in proximity to the Project. Failing this, the Applicant will cease operations until the glare is rectified.

C. Potential changes in property values and land use:

1. No unique mitigation measures are recommended related to potential impacts to property values or adjacent land uses because other mitigation can accomplish this. However, close coordination by the Applicant with concerned homeowners regarding these mitigation measures should be initiated.

D. Peak and average noise levels:

1. The Applicant should notify residents and businesses within 2,400 feet of the Project boundary about the construction plan, the noise potential, and the mitigation plans at least one month prior to the start of construction.

2. The Applicant should remain in contact with nearby residents to confirm that noise levels are not unduly high or annoying after the pounding and placement of the solar panel racking begins. If the noise levels are unduly high or annoying, the Applicant should mitigate those effects as needed.

3. If pile driving activity occurs within 1,500 feet of a noise sensitive receptor, the Applicant should implement a construction method that will suppress the noise generated during the pile driving process (i.e., semi-tractor and canvas method; sound blankets on fencing surrounding the Project site; or any other comparable method).

4. Pile driving activities should cease by 6pm each day, except for pile driving locations within 1,500 of noise receptors, in which case, pile driving should cease at 5pm. Since the area is largely rural, a constant pounding during evening hours has the potential to upset the natural tranquility of the area and severely annoy residents.

5. The Applicant should limit the construction activity, process, and deliveries to the hours of 8am to 6pm, Monday through Saturday. No construction work should be conducted on Sundays. These hours represent a reasonable timeframe to ensure that nearby property owners are not unduly impacted by construction activities.

E. Road and rail traffic, dust, and road degradation:

1. The Applicant should work with the Kentucky road authorities and the Russell County Road Department (RCRD) to perform road surveys, before and after construction activities, on all roads to be used by construction vehicles.

2. The Applicant will consult with the Kentucky Transportation Cabinet (KTC) regarding truck and other construction traffic and obtain necessary permits from the KTC.

3. The Applicant will consult with the Russell County Road Department regarding truck and other construction traffic and obtain necessary permits from the RCRD.

4. The Applicant should develop special plans and obtain necessary permits before bringing the very heavy loads, especially the substation transformer, onto state or county roads.

5. The Applicant will comply with any road use agreement executed with the RCRD. Such an agreement might include special considerations for overweight loads, routes utilized by heavy trucks, road weight limits and bridge weight limits.

6. The Applicant should fix or fully compensate the appropriate transportation authorities for any damage or degradation to roads that it causes or to which it materially contributes to, regardless of its status as a KY Route or local road.

7. The Applicant should develop and follow a traffic management plan to minimize the impacts of any traffic increases and keep traffic and people safe.

8. The Applicant will comply with all laws and regulations regarding the use of roadways.

9. The Applicant will develop a fugitive dust control plan and follow best practices to suppress fugitive dust emissions. The Applicant will monitor dust emissions occurring during construction or operations and adjust activities, if necessary, to minimize dust emissions.

F. Economic impacts:

1. Socioeconomic impacts of the Mt Olive Creek solar facility represent a positive contribution to the region. However, the economic benefits to the local area are small and largely temporary. The Applicant should attempt to hire local workers and contractors to the extent they are qualified to perform the construction and operations work.

G. Decommissioning:

1. The Applicant, its successors, or assigns shall decommission the entire site if the Project ceases producing electricity for a period of more than twelve (12) months. Decommissioning shall involve the removal of all solar panels, racking, and equipment including concrete pads and trenched electrical wiring. Fencing and internal access

roads shall also be removed unless the landowner states in writing that they prefer fencing and internal roads to remain in place.

2. The Applicant will abide by its developed Decommissioning Plan, which commits to removing all facility components from the Project site and Russell County at the cessation of operations, with the exception of specific landowner requests for fencing or internal roadways to remain in place.

3. Any change to the Decommissioning Plan will be submitted to the Siting Board. The Siting Board will determine whether any changes in decommissioning activities are acceptable.

4. The Applicant's Decommissioning Plan, including all decommissioning activities, conditions, and requirements, shall apply to all properties within the Project site, including both leased properties and purchased properties.

5. The Applicant will provide Decommissioning Security equal to the amount necessary to complete site decommissioning activities, naming Russell County as the Secondary Beneficiary of that Security.

6. The Decommissioning Cost Estimate should be updated every five years at the expense of the Applicant and the amount of the Decommissioning Security should be adjusted at the same time.

7. If the Applicant proposes to retrofit the current proposed facility, it shall demonstrate to the Siting Board that the retrofit facility will not result in a material change in the pattern or magnitude of impacts compared to the original project. Otherwise, a new Site Assessment Report will be submitted for Siting Board review.

8. The Applicant shall also prepare a new Site Assessment Report for Siting Board review if the Applicant intends to retire the currently proposed facility and employ a different technology

H. Public outreach and communication:

1. It is suggested that the Applicant pursue additional public involvement within Russell County.

I. Complaint resolution program:

1. The Applicant should develop a Complaint Resolution Program that describes the process for filing complaints during construction and during operations; how the complaint will be addressed; the timeframe in which a complainant can expect a response; and an explanation of how resolution will be determined if the complainant is not satisfied with the response from the Applicant.

2. The Applicant should submit to the Siting Board, annually, a status report associated with the Complaint Resolution Program, providing the individual complaints, how the

Applicant addressed those complaints and the ultimate resolution of those complaints, identifying whether or not the resolution was to the complainant's satisfaction.

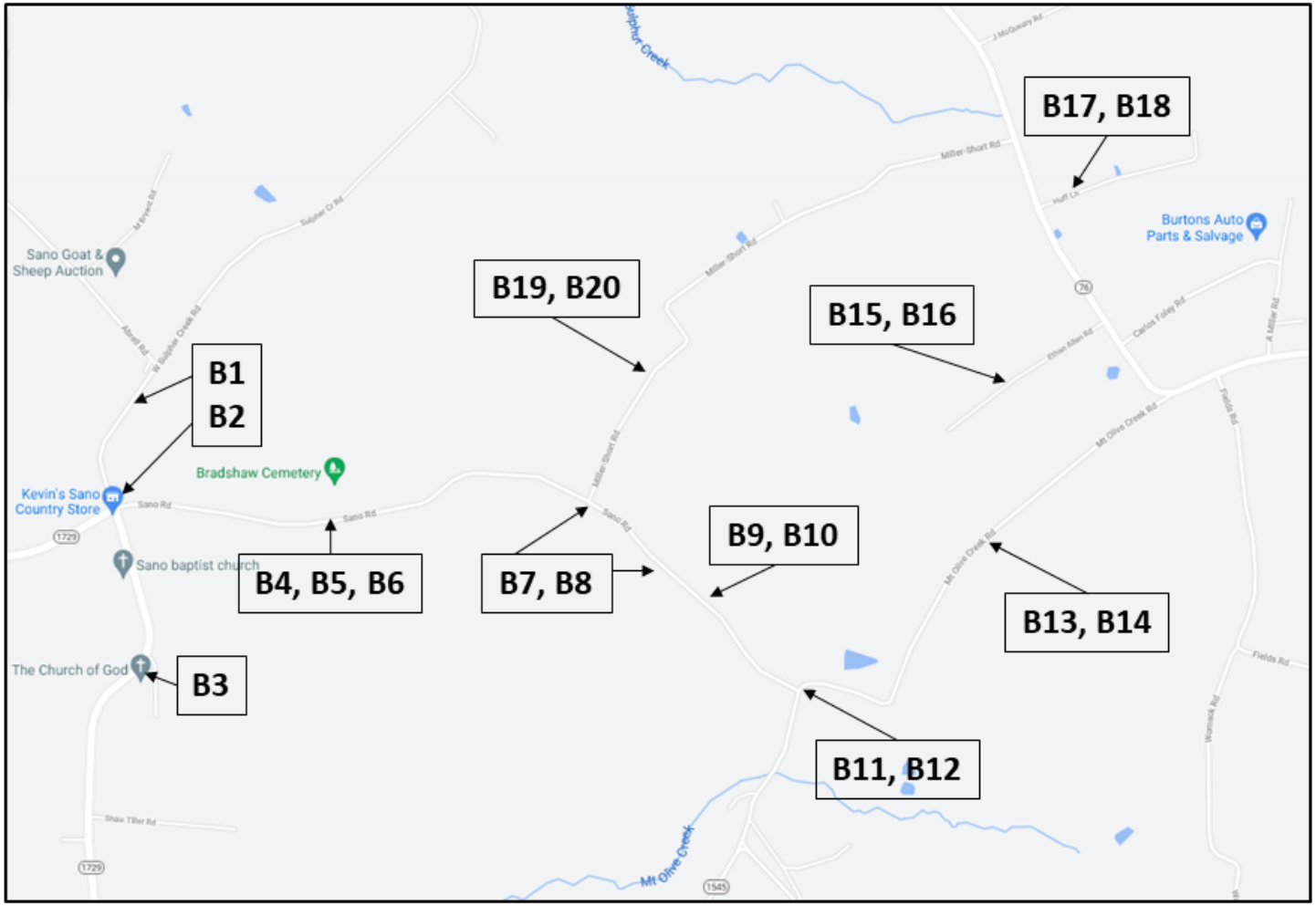
Deviation from Setback Requirements

As presently proposed, the Mt Olive Creek Project does not meet the existing setback requirements. As such, the Applicant has entered a motion for a deviation from those requirements. HE reviewed this motion and believed that the Project does meet the specific statutes noted for consideration of a setback deviation. The Siting Board will need to judge whether the quality of the Applicant responses on the setback deviation request is satisfactory.

APPENDICES

Appendix A

Photo Log Index Map



Appendix B

Site Photos

Exhibit B-1.
View of the Mt Olive Creek Project Site, Looking East from W. Sulpher Creek Road, North of the Intersection with Sano Road

Exhibit B-2.
View of the Mt Olive Creek Project Site, Facing East from W. Sulpher Creek Road, near the Intersection with Sano Road

Exhibit B-3.
Church of God, Located on Sano Road to the South of the Mt Olive Creek Project Site

Exhibit B-4.
Bradshaw Cemetery, Located on Sano Road, East of W. Sulpher Creek Road

Exhibit B-5.
View of Sano Road, East of W. Sulpher Creek Road

Exhibit B-6.
Mt Olive Creek Project Site Access Road, From Sano Road

Exhibit B-7.
View of the Mt Olive Creek Project Site at the Intersection of Miller Short Road and Sano Road, Facing North

Exhibit B-8.
View of the Mt Olive Creek Project Site from Sano Road, West of Mt Olive Creek Road, Looking North

Exhibit B-9.
Non-participating Landowner Residence, Located along Sano Road, West of Mt Olive Creek Road

Exhibit B-10.
View of the Mt Olive Creek Project Site and Substation Location, Facing South from Sano Road

Exhibit B-11.
Mt Olive Missionary Baptist Church at the East end of Sano Road, near the Intersection with Mt Olive Creek Road

Exhibit B-12.
View of the Mt Olive Creek Project Site from Mt Olive Missionary Baptist Church

Exhibit B-13.
View of the Project Area from Mt Olive Creek Road, between Sano Road and Millerfield Road, Facing West

Exhibit B-14.
View of Mt Olive Creek Road, Between Sano Road and Millerfield Road

Exhibit B-15.
View of Ethan Allen Road, Facing Northwest

Exhibit B-16.
View of Mt Olive Creek Project Site from Ethan Allen Road

Exhibit B-17.
View of T Wethington Road, Facing East

Exhibit B-18.
View of Mt Olive Creek Project Site from T Wethington Road

Exhibit B-19.
View of the Construction Access Point on Miller Short Road, North of the Intersection with Sano Road

Exhibit B-20.
View of Miller Short Road, North of the Intersection with Sano Road

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